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The Medical Journal of Australia
(July 10th, 1937, pages 49 and 52)
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CENTAUR

The Journal of the Sydney University Veterinary Society

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Business Manager: W. R. SIDMAN.

Committee:
A. K. SUTHERLAND, K. U. L. KESTEVEN, D. G. CHRISTIE.

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This Journal has been copyrighted in Australia,
EDITORIAL

It is with considerable pleasure that we present the first number of "Centaur"—the Journal of the Sydney University Veterinary Society.

The Society's decision to publish a journal is the outcome of a sustained enthusiasm for the project maintained over a number of years by a small section of its members. Successful objection has, until now, been upheld on two grounds: difficulty of finance and uncertainty as to whether such a journal could be maintained on a standard sufficiently high for its worthy functioning as organ of the Society.

The financial difficulty has now been solved by a suitable arrangement with our publishers, and there remains only the second difficulty to be considered. This, naturally, is more a matter for succeeding generations of students, but it would appear unduly pessimistic to prophesy for future years a decline in enthusiasm for the activities of the Society—amongst which is to be numbered the publication of this journal. Rather would we predict that such enthusiasm will increase as time goes on. Even to-day, in the comparative infancy of our Faculty, we are proudly conscious of the Faculty spirit—the co-operation, the good-fellowship, and the unity of purpose of our members. It is not to be conceived that this spirit will flag as succeeding years add tradition of further achievement to our record. Further, under the regime of the new course, students will be in contact with the Society for at least five years, with consequent increase in interest in its activities; the new course will, moreover, provide greater opportunity for assimilation of the scientific philosophy underlying their studies, for the development of mental initiative, and thence, naturally, will create greater demand for expression—a demand which will be satisfied in the pages of this journal.

In "Centaur" we have at once an official voice and an ambassador to gain us contact with sister Veterinary Colleges. It provides an organ through which eminent members of our own and allied professions may convey to us their mature deliberations, and thus assist us to achieve a wider and truer perspective of the problems it will subsequently be our duty to study. In "Centaur" each member will possess a record of all phases of the activities of the Society; and in it each will find opportunity for acquiring facility in the expression of his own particular views, the clear exposition of which is no less important than their conception. Finally, the journal affords a means of permanent and available record of interesting cases observed in our clinic or in other departments; case records which might otherwise be lost or inaccessibly stowed away.

The birth of "Centaur" is attended by the most favourable omens. The time is propitious in the history both of our Veterinary School and of the Veterinary profession. In the School the number of students enrolled has reached a total unprecedentedly high, and the course has been extended to five years. New buildings are under construction, and in the new experimental farm a valuable unit has been added to our facilities for study. The award to our Dean of an Honorary Fellowship of the Royal College of Veterinary Surgeons lends reflected glory to the School; while the appointment of one of our most distinguished graduates to the Secretariat of the Wool Board in London carries our name into the field of Imperial Economics. The Veterinary profession finds itself in an age of widening opportunity. More and more are its energies turned to the acquisition of new knowledge; more and more does it endeavour to substitute prevention for the treatment of disease; and more and more does it work towards the improvement and development of the animal resources of the country. Veterinary Science is no longer empirical, but is an exact branch of Science.

In a spirit of high optimism, then, we introduce "Centaur".
Sydney University Veterinary Society.

OFFICE-BEARERS, 1937-38

Patrons:
The Hon. the Minister for Agriculture, The Dean, and Members of the Staff of the Faculty of Veterinary Science.

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T. K. EWER.

Vice-Presidents:
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B. H. Barracloough.
E. G. Lowe.
J. Odbert.

Debates:
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W. R. Sidman.
P. Ruddock.

Festival Float:
K. E. Sanders.
R. H. Long.
H. E. Beattie.
L. F. McManamny.
H. Carroll.
J. F. Wedderburn.

Year Representatives:
IV. A. E. Engel.
III. B. H. Barracloough.
II. J. Odbert.
I. D. G. Christie.
The Society exists for the purpose of fostering good-fellowship and friendly intercourse amongst graduates and undergraduates in the Faculty of Veterinary Science. It aims, moreover, to assist the development in its undergraduate element of a broad and comprehensive approach to matters of professional and public interest.

In pursuance of these ideals the Society supports two social functions: the Annual Dance and the Annual Dinner; and, in addition, arranges for the regular delivery of addresses. Further, it encourages the reading of scientific papers by its members, and it maintains a small library of books of a scientific and cultural nature.

Membership of the Society has undergone considerable variation since its inception in 1912, until now it stands at the total of one hundred and fifty. For the first eight years of its activities the presidency was held by a member of the staff, in the person of either Professor J. D. Stewart, the foundation president, or of Dr. S. Dodd. In 1920, however, the administration of Society affairs was handed over entirely to the students, and in that year Dr. I. Clunies Ross was elected the first student president. The following list of past presidents contains the names of many men who, besides distinguishing themselves in the scientific world, have achieved much for the Veterinary profession in Australia:

**PAST PRESIDENTS:**

- 1912—Prof. Stewart.
- 1913—Dr. S. Dodd.
- 1914—Prof. Stewart.
- 1918—Prof. Stewart.
- 1919—Dr. S. Dodd.
- 1920—I. Clunies Ross.
- 1921—H. G. Belschner.
- 1922—H. R. Carne.
- 1923—A. L. Rose.
- 1924—W. A. Carr-Fraser.
- 1925—E. N. Larkin.
- 1926—H. White.
- 1927—W. Webster.
- 1928—R. O. C. King.
- 1929—W. J. B. Murphy.
- 1930—S. P. Hebden.
- 1931—K. S. F. Bray.
- 1933—D. S. R. Abbott.
- 1934—E. S. Rogers.
- 1936—H. E. B. Shaw.

An account of the present year's activities for Lent and Trinity terms is appended below.

**ORDINARY MEETINGS OF THE SOCIETY.**

(Lent and Trinity Terms, 1937.)


"Veterinary Service in New Zealand and Australia."

Mr. Gill gave a concise historical account of the early introductions of domestic animals into New Zealand, describing the outbreaks of
contagious bovine pleuropneumonia and sheep-scab, and the methods used in their eradication. After referring to the pioneering work of the late Dr. Giluth and his successful control of the initial outbreaks of anthrax and blackleg, Mr. Gill described the development and present state of veterinary service in New Zealand. Comparisons were drawn between the services in New Zealand and in Australia.

23rd April, 1937. Address by MR. T. HUNGERFORD, B.V.Sc., Dept. of Agriculture, N.S.W.

"Veterinary Practice in the Poultry Industry, Its Scope, Ethics and 'Economics.'"

After quoting figures to show the important economic position of the poultry industry in relation to other industries in Australia, Mr. Hungerford dealt with the incidence and distribution of some of the more serious diseases of poultry, and indicated the treatment and prophylactic measures usually adopted in each case. He emphasised the need for strict control measures in an industry where intensive systems of production were so highly developed.


"The Blowfly Problem in Australia."

The speaker gave an account of the detailed work leading up to the identification of the fly chiefly responsible for the primary "strike" in Australia. The excessive development of folds on the skin of some strains of merino, and the presence of moisture in the wool, were stressed as prime factors of predisposition to strike. Fly trapping and the removal of carrion which provided a breeding ground reduced the number of flies, while susceptibility to strike was decreased by the selective breeding of non-wrinkled sheep or the removal of skin folds by Mule's operation.

14th May, 1937. Address by DR. I. CLUNIES ROSS, Officer-in-Charge McMaster Animal Health Laboratory.

"The Widening Field of the Veterinarian."

Dr. Ross gave an account of the development of the profession and briefly surveyed the spheres of activity of the present-day veterinary scientist. He believed that the scope of the veterinarian was bound to extend into every field of animal production. In anticipation of this extension, the speaker exhorted members to do all in their power to make themselves competent to take advantage of the opportunities offered by this advance.

11th June, 1937. Address by DR. L. B. BULL, Chief of Animal Health Division of C.S.I.R.

"Mammitis Research in Australia."

Dr. Bull gave a general survey of the research methods adopted in attacking the mammitis problem in Australia. He outlined the nature of the biochemical and serological tests of organisms recovered from infected cows, and described the technique of milk sampling for bacteriological work at the Parkville Laboratory. He emphasised the importance of careful animal management in the control of mammitis.

25th June, 1937. SYMPOSIUM.

"State Veterinary Services in Australia."

The leading speakers were members from the following States: Western Australia: Chas. Pope; Victoria: J. Arnott; Tasmania: G. R. Brettingham-Moore. Each speaker described the geographic and climatic factors influencing the distribution of stock, the type and
incidence of disease, and the adequacy of present veterinary services to deal with disease problems in each State.

2nd July, 1937. Address by DR. W. L. WATERHOUSE, Faculty of Agriculture.

"The Cereal Rusts."

Dr. Waterhouse stated that the economic importance of the cereal rusts may be appreciated from the fact that the annual loss to the wheat crops in N.S.W. due to rust attack may amount to £2,000,000. After describing two alternate life cycles of both stem and leaf rusts of wheat, the speaker gave an account of the complexity of the problem of breeding rust-resistant varieties as the chief means of control. Although true resistance was inherited in a simple Mendelian fashion, the fact that morphologically similar rusts existed in numerous physiological forms, to each of which a specific resistance could be demonstrated, made the task of combining resistance to all forms with other desirable characters no easy matter. Further, this achievement was likely, at any time, to be ruined by the appearance of new physiological forms of rust.

16th July, 1937. Address by MR. W. L. HINDMARSH, B.V.Sc., Director, Glenfield Veterinary Research Laboratory.

"Some Aspects of Sterility in Dairy Cattle."

Mr. Hindmarsh described the effects of various disorders of the ovary, uterus and pituitary on the rhythm of the oestrous cycle in the cow. Having stressed the value of the breeding record of the animal in arriving at a tentative diagnosis of the cause of sterility, the speaker gave a detailed account of the clinical examination of the reproductive system, indicating the various abnormalities which may lead to sterility when the oestrous cycle is normal. In conclusion, the causes of abortion were discussed.

23rd July, 1937. Address by DR. I. J. CUNNINGHAM.

"Diet and Male Sterility."

Dr. Cunningham described a particular type of sterility characterised by degeneration of the germinal epithelium, which developed in male rats maintained on a ration consisting of about 70 per cent. of maize, and considered adequate in respect of the known vitamin and ash requirements. The growth and health of the rats was normal in every other respect. A ration containing the same ingredients, but with the maize portion replaced quantitatively by wheat, produced normal fertile rats. The evidence indicated that the primary cause of sterility was a deficiency or total absence of some amino acid or group of amino acids essential for the development of normal spermatozoa. The work was being extended to include farm animals.

SPECIAL MEETING.

On July 30th a special meeting of the Society was held to bid farewell to Mr. George Williams, who had been Chief Attendant at the Veterinary School for almost twenty-one years. Professor Stewart, on behalf of the staff, graduates and undergraduates, presented Mr. and Mrs. Williams with small tokens of the esteem in which they were held, and wished them every happiness in their retirement.

"George," in replying on behalf of his wife and himself, expressed their appreciation of the gifts and recalled various incidents in his long and happy associations with the Veterinary School.
THE DANCE. (By Joyce Steel.)

The dance this year was held at Blaxland Galleries on Tuesday, 13th July (this is mentioned in case any of the large number absent would be interested to know).

The gathering was a distinct social success, and the company enjoyed themselves thoroughly. The liquid refreshment was of the usual high standard, particularly that "peppermint bombshell" provided at the tables of several well-known veterinary personalities. The supper, too, was delicious, though some had little time to try it.

Those in charge of the decorations are to be congratulated on their ingenious charcoal drawings—the most original idea displayed for some time. In fact, these drawings were so greatly appreciated that they had all disappeared by 11 o'clock.

It would be inspiring to have more graduates attend, and it is hoped that the present final year students will not withhold this inspiration next year.

THE LIBRARY

The proposal to establish a library was put forward by the retiring hon. treasurer for 1936—Mr. T. K. Ewer—as a means of profitable investment of a small surplus of Society funds. After considerable discussion it was decided that books of a general scientific nature be purchased, since it was felt that the exigencies of our course tend to limit the reading of members in cognate sciences. This decision has been given effect to, and a small number of books has now been made available to members.


Out of certain funds at his disposal the Dean of the Faculty has, moreover, generously donated some valuable reference books of direct professional interest to members.

The Library is left open and members may consult books or periodicals at any time, but none of these may be removed from the reading room.

It is the intention of the Society to build up the Library steadily by annual purchases of books, and it is hoped also that those interested might assist this object by the donation of suitable volumes.

DEBATING

For the first time in the history of debating in the Faculty the sub-committee succeeded in arranging some trial debates.

These were not quite as successful as was anticipated, and it is apparent that much better practice could be obtained by enthusiasts if they attended the weekly debates in the Union Hall.

In the first heat the Faculty team defeated the Science team, but Arts evening students, the runners-up, defeated us in the semi-final.

J. W. McLEAN.
ENTERPRISE, PROGRESS, ACHIEVEMENT

By J. D. Stewart.

It is appropriate that the first issue of the newly created journal of the Sydney University Veterinary Society should contain some reference to the Alma Mater of its sponsors; but when one reviews all that was written and said about the Sydney Veterinary School during its recent Silver Jubilee celebrations, some difficulty is experienced in making an additional contribution likely to be of general interest.

The enterprise of the students in starting a journal of this nature is quite in keeping with the spirit that has always prevailed in the Sydney Veterinary School. Even when our members were few, Veterinary Science always lent strength to the various undergraduate activities, and now, with the increased members of recent years, the responsibilities of being a major Faculty within the University are fully realised and faithfully discharged. Maybe this characteristic enterprise on the part of veterinary students is but a reaction to their environment, in as much as they have become an integral part of an important institution; one which has a special mission to fulfil in advancing prosperity and happiness by increasing production and alleviating suffering in our animal population, upon which we, as a nation, so largely depend.

Manifestations of enterprise are always gratifying—as enterprise is unquestionably a stimulus to progress. The path of progress, however, is oft beset with difficulties; some anticipated and causing no great concern, others unexpected and calling for much effort. So it comes about that the fruition of a well conceived and carefully planned programme of progress is often long delayed. For instance, the programme for 1909 for the development of Veterinary Science in this State included as its major objectives the establishment of a Veterinary School including hospital and farm, and the acquisition of legislative protection for the veterinary profession. At the time everything appeared favourable for the early attainment of each of these objectives, but no sooner was the scheme launched than many unforeseen difficulties arose, including the outbreak of the World War and the depressing effects of its aftermath. Soon after the main building of the School was erected in 1913, all costly undertakings by the Government were abruptly terminated, and, as a result, the permanent hospital has yet to be built. The possession of the farm was delayed until last year (1936), when the McGarvie Smith Trust generously came to our rescue. In 1910 a Bill was drafted to control the practice of Veterinary Science, but it was not until 1923 that the Veterinary Surgeons Act was placed on the Statutes and conferred upon our members similar rights and privileges to those enjoyed by the medical and other protected professions. However, as there are good reasons for believing the Veterinary Hospital will be erected within the next year or so, it would appear that the plan of progress conceived in 1909 for immediate execution will actually be achieved by 1940.

While retardation of progress is always vexatious to impatient Directors, realisation of successful achievement brings with it a certain consolation so long as the goal finally attained excels that originally aimed at. And so will it be with the Veterinary School, for it must be confessed that, when the School is completed according to our present plans, it will be much superior to that originally devised, and will bear favourable comparison with the Veterinary Colleges of Great Britain.
Our experience certainly indicates that enterprise, to be of any real value, must be crowned with achievement, and that achievement is often only gained by indefatigable effort, fortified by unwavering resolution and sustained by an enduring patience.

While the members are to be complimented upon the founding of the journal of the Sydney University Veterinary Society, it is to be realised that with the issue of the first number succeeding numbers are committed to the responsibility of maintaining and developing future issues, so that the journal will truly become for all time the official organ of the student body. The splendid tradition built up by the graduates must not only be maintained but be enhanced and all will be well, so long as the sentiment expressed in the following verse of the Faculty song is borne in mind, viz.:

"Now here's to the School at the foot of the hill;
Her's be our love through good or through ill,
The School where we all must be ground through the mill,
Oh, we'll drink to her health till the morning."

OUR FARM
By F. Whitehouse.

In 1936, circumstances were such as to necessitate Dr. R. B. Kelley's search, on behalf of the C.S.I.R., for a sheep property in close proximity to Sydney, and, seven miles from St. Mary's in the County of Cumberland, only thirty-two miles from the University, he found a suitable property of 1,200 acres, which, fortunately, was 400 acres too large for C.S.I.R. requirements.

Professor J. D. Stewart saw the dream of a lifetime within his grasp when the Vice-Chancellor approached the McGarvie Smith Trust, which not only donated £5,000 towards the purchase of the 400 acres and erection of buildings, but very wisely and generously granted £1,000 a year towards their upkeep. The University and staff are very grateful to the Trust for its beneficence, and I know that the appreciation of students is very warm and sincere.

This animal husbandry farm of the University and the field research station of the C.S.I.R., though separate entities, dovetail to form a single working unit. The buildings of both authorities have been arranged to afford the maximum efficiency for staff and students, and the C.S.I.R. has been asked to allow Dr. Kelley to superintend both farms, which will be run as one, while I myself shall be responsible to the Faculty for educational activities.

At present the farm has been divided into paddocks, dams have been sunk, and stables, wool shed and dip, and a dormitory have been erected.

It is proposed to hold Friday night to Monday morning work sessions during term, students to be allotted to the farm in groups, according to a definite plan; and it is hoped to make the farm reasonably self-supporting. During vacations the farm will be a hive of activity, and students will be expected to enter into the spirit of the enterprise, and literally to discard the pen for the reins.

The proposed menage will provide special opportunities for students to become efficient in horsemanship.

The control of the farm has been placed under a special committee comprising the members of the Faculty, to whom great credit is due for the interest they have taken in the development of this important annexe to the Veterinary School. Special mention should be made of the keenness and material help of Dr. Carne, who, as chairman of the farm committee, has worked unceasingly for the common weal.
Animal health problems in Australia are numerous and varied. In the first place, it is not easy to reduce the "lag period" between the acquisition and the application of knowledge of animal husbandry and disease control. Stock-owners do not readily assimilate knowledge that can be gained from reading pamphlets and bulletins sent out by the departments concerned with extension services. Demonstration is the most satisfactory method in most cases, and stock-owners need much assistance before the level of animal management can be raised to a position commensurate with the large amount of knowledge already waiting to be applied. The position can be greatly improved by the appointment of more district extension officers. These officers can also perform a valuable function in defining problems in animal health which may then become subjects for investigation in the field and in the laboratory.

There are numerous animal health problems which are not yet recognised or are only slowly becoming recognised, but it requires the mind already prepared or the trained eye to detect these problems.

Animal health problems in general can be classified under several headings. First of all, we have the problems caused by infectious and contagious diseases. In many instances the cause is already known, such as in tuberculosis and brucellosis of dairy stock; but the eradication of such diseases from our flocks and herds is difficult, if it is to be accomplished economically. The problems in dealing with diseases of this sort are efficient diagnosis and economic disposal of infected stock. There is a large number of infectious diseases, using the word for diseases due to infective processes, which are not strictly contagious in character and which are, in many cases, due to commensal or environmental organisms. Entero-toxaemia, caseous lymphadenitis and mycotic dermatitis of sheep may be classified in this group. Although the bacterial causes of these particular diseases are known, there are very definite problems to be solved before control can be really effective.

Apart from infectious and contagious diseases of stock, there are many other causes of lowered efficiency in stock raising. Parasitism, both by ecto- and endo-parasites, requires constant vigilance and care if it is to be kept down to a minimum. Eradication of some forms of parasitism is theoretically possible, but even under the best conditions is rarely, if ever, complete.

The resistance of animals to parasitism and other forms of disease depends very largely on maintaining them at a high plane of nutrition. The nutritional requirements of animals under various conditions and for production of special products, such as milk, wool and meat, are still very incompletely understood. The nutritional factors associated with malnutrition of stock, which is sometimes seen in more or less well-defined and restricted areas, are as yet ill-defined or undetermined. There are, therefore, under the broad term of animal nutrition, numerous problems yet to be solved before the economic position of the animal industry can be regarded as satisfactory.

Then there are the problems which can be broadly classified under the term animal production. Man has selected and modified the domesticated animals to suit his own requirements and the ever-increasing changes in fashion. The selection and breeding of cattle for beef or milk, or for both in the so-called dual purpose animal,
bring about their own special problems, particularly in a continent so wide as Australia with its varied climatic and geo-physical conditions. These remarks apply also to other classes of stock. Broadly speaking, the problem is to find the class of animal that is most nearly adapted to the particular environment. With increasing knowledge, we find that sometimes the geo-physical conditions offer distinct limitations to the successful raising of stock because of the deficiency or absence of some element or group of elements in the soil which is essential to animal nutrition. The nutritional aspect, therefore, must not be neglected in this field of endeavour to select animals most suited to a particular environment. Selection of animals for special purposes has largely been carried out by methods of trial and error. There is always the danger that the breeder may have a fixed idea leading in one direction. He may breed a class of sheep which is nearly ideal either for meat or wool production, but hereditary lethal factors may make their appearance, low fertility may result, or other desirable characteristics disappear, and so an entirely uneconomic class of animal may be the product of his labours. With increasing knowledge of the fundamental mechanisms underlying the transmission of characters from parent to offspring, valuable assistance may be given to the stock breeder.

This is a very broad and very thin consideration of the animal health problems confronting a stock-raising country such as Australia. What are the main animal health problems in Australia? This is not an easy question to answer. What may appear today to be a minor may develop to-morrow into a major problem, and the causes for the change may be purely external, such as a change in fashion affecting an overseas market or the embargo placed on stock because of the presence of some disease which in itself is harmful neither to man nor beast but may offend the aesthetic sense or prove a useful weapon to a competitor.

In tropical Australia, where the main industry is cattle raising, the problems are mainly those connected with the cattle tick and the associated tick fevers, pleuro-pneumonia, nutritional disorders due to mineral and protein deficiencies, and the adaptation of reasonably highly productive animals to tropical and semi-tropical conditions. The introduction of clean animals into these areas cannot be accomplished without first increasing their resistance to the tick fevers and pleuro-pneumonia. According to present knowledge, if these animals are artificially infected with Piromyalma bigeminun and Anaplasma centrale they will remain resistant to natural infection by P. bigeminum, A. marginale and Babesiella. The problems associated with the control and possibly the eradication of these diseases are mainly those of organisation and administration.

In the more extensive areas, the main problem in the sheep and wool industry is the control of fly-strike. The economics of wool production in these extensive areas are such that comparatively heavy losses can be more easily borne than prevented. It is a time-consuming and costly matter to muster the animals for complete inspection or treatment, and preventive methods must be adopted to these conditions. With increase in the price of sheep and in the price of wool during recent years, more attention has been given to the problems of sheep breeding in the more extensive areas. Nutritional problems, including those of drought feeding, are receiving more attention and station owners and managers are coming to a realisation that it does pay to give more attention to animal health problems. Another problem in these areas is that of low lambing percentages, which may be associated with inadequate nutrition, mating times and methods, selection and culling methods, or the effects of climate.
In the areas of greater carrying capacity and higher rainfall the problems become more intense, and pasture improvement, with the consequent crowding together of large numbers of animals on small areas, calls for special methods of animal management to prevent or control parasitism, enterotoxaemia, foot-rot and other troubles which are more or less unknown in the drier areas of light carrying capacity. The two outstanding problems in dairy stock in these areas are mastitis and contagious abortion. The underlying factors associated with the occurrence of mastitis in dairy cows are still very incompletely understood and no successful method of control has yet been evolved. In other farm animals, such as pigs and poultry, parasitism and infectious diseases are causes of economic loss.

Adequate nutrition for all classes of animals is essential if production is to be carried on economically. The provision of this and the correct methods of management to attain it bring to light problems which differ under various climatic conditions and the solution of which requires the co-operative efforts of agrostologists and others with the veterinarian. The mineral requirements of various animals are still incompletely understood, and the demonstration of cobalt as an essential requirement of ruminant animals is an example of the danger in advocating phosphorus and still more phosphorus for the alleviation of all evidence of malnutrition in our stock. Certain areas, fortunately in some instances restricted in extent, offer special problems in mineral deficiency associated with soil types which are reflected, not only in the malnutrition of the animal, but often in the limited number of plant species that can maintain themselves on such soils.

The solution of many of these problems requires the co-operation of specially trained workers, such as chemists, bacteriologists, pathologists, geneticists, parasitologists, agrostologists and others, but not least amongst these is the trained observer in the field, the man who knows his animal and who can define the problems before the laboratory worker is called upon to assist.

**FOUR BEASTS**

There be four things which are little upon the earth
But they are exceeding wise;
The ants are a people not strong,
Yet they prepare their meat in the summer;
The conies are but a feeble folk,
Yet they make their houses in the rocks;
The locusts have no king,
Yet they go forth all of them by bands;
The spider taketh hold with her hands,
And is in kings' palaces.

—The Authorised Version.
SOME FACTORS INFLUENCING LAMBING PERCENTAGES OF MERINO SHEEP

An Essay by H. E. B. Shaw.*
Abstracted by R. N. Sanders.

A. RAMS: MANAGEMENT AND FEEDING.
Breeding rams must be examined for any clinical defect which might render them unable to serve a ewe or which might reduce their fertility. Such rams must be prepared for the mating season.

Shearing before service improves condition and activity. Shearing also reduces fly-strike. The latter is capable of having serious effects on a ram's fertility. Shearing or even crutching appears to act as a stimulus to oestrum in the ewe.

Rams are more fertile if in good hard condition. It is suggested that beneficial results would be obtained if rams were given an adequate diet prior to mating. Rest and extra feed during the mating season makes a ram more vigorous.

Many low lamb-drops of the past have been due to the fact that one or more rams become isolated with a single ewe. This is more liable to occur in very large mating paddocks. In such paddocks rams have to travel long distances to find ewes in oestrum. To overcome this, the rams and ewes are often "mixed," either by yarding overnight or by "mobbing" them into a corner of the mating paddock for an hour or so.

B. MANAGEMENT OF EWES.
Under-nourished or over-fat ewes are liable to be infertile. A practice termed "flushing," where ewes are placed on an improved diet for two to three weeks before mating, has proved successful.

In Australia, seasons appear to have little effect on breeding efficiency of merinos, and time of mating varies with the locality.

To safeguard a complete gestation, ewes should be fed, during pregnancy, so that there is no loss of body weight. This helps to protect the ewe and lamb from death due to pregnancy diseases, or weakness and exhaustion. Even when hand-feeding is practised to supplement the natural pastures, it is often insufficient to support, adequately, a pregnant ewe.

Losses at lambing are sometimes great. Consequently the lambing paddock should be of a suitable size for supervision and well sheltered and watered. Ewes in low condition and maiden ewes need more attention during lambing.

C. GENERAL FACTORS.
As an illustration of environmental effects on lambing percentages, it is worthy of note that the lambing percentage frequently runs parallel with the annual rainfall when graphed. A high rainfall, but unfavourably distributed, may produce an equivalent of a low annual rainfall.

Cold or unfavourable weather may cause a drop of 5-10 per cent. in the lambing percentage. Foxes, crows, etc., may reduce it by 1-2 per cent.

D. LAMBING PERCENTAGE AND CORRECTION FIGURE.
Lambing percentage in this essay "is the percentage of lambs marked to the ewes mated"—a method used on most Australian properties.

The lambing percentage of properties examined was 67.6 per cent. (weighted average). This, however, is far below the lamb

*Mr. Shaw was awarded the Dean's prize for the best essay of 1936.
drop. Approximately 7-10 per cent. (12-16 per cent. for twins) of lambs are lost between birth and marking, due to weather, feed, pests, etc. To this must be added 2-4 per cent. for death of ewes up to marking, due to pregnancy disease, malpresentation, exhaustion, etc.

CONCLUSIONS.

The above figures are most conservative. Improved management will not only improve the lamb drop, but will also reduce the loss of lambs between birth and marking. "It at once becomes apparent that low marking percentages are due to the system of animal husbandry, feeding and environment, and not to inherent low fecundity."

A million million spermatozoa,
All of them alive;
Out of their cataclysm but one poor Noah
Dare hope to survive.

Aldous Huxley.

ABATTOIR

Out of a mile-long corridor,
Clattering conveyor above,
Taking pale, dead pigs
To the cold,
One enters a thundering hell
Of beef! The air is thick with
Slowly-moving, transmogrifying,
Blood-stained beeves.
Sub-human creatures, uttering
Strange cries, hardly discernible,
As pale, ugly men in
Blood and rags,
Moving wildly, sharpening worn,
Bloody, slippery knives;
And cutting quickly, cleanly, soft,
Dead, quivering flesh.
Blood, blood everywhere,
Smoking, brown, spurting blood,
Or bright-red, clotted blood
Spewed over floors.
Screeching, shrill-piercing shrieks
Of two round-saws spraying bone-dust
And spinal-cord mush. Smell
Of scorching bone . . . Noise.
Noise and blood . . .
Blood and madness . .
Beef-hell . . .
Our food!

T.K.E.
SOME PATHOLOGICAL SPECIMENS OF SPECIAL INTEREST RECENTLY SUBMITTED FOR EXAMINATION

By H. R. Carne.

I. RHABDOMYOMA OF THE LARYNX OF A DOG.

This specimen was submitted by Mr. S. P. Hebden, B.V.Sc., who supplied the following information:—

Subject: A Pomeranian, male, aged 15 months.

History: Six months prior to the animal being seen, the owner had noticed the dog producing a noise, apparently as the result of some derangement of the larynx. This became progressively louder and difficulty in breathing was observed.

Mr. Hebden located a swelling in the thyroid region, extending round the lower two-thirds of the larynx. As the tumour was not well-defined and involved important structures, extirpation was not attempted and the dog was destroyed.

On microscopic examination the larynx was found to be surrounded by a firm, fleshy mass which had invaded the epiglottis and arytenoid cartilages, and encroached extensively on the laryngeal opening.

Microscopical examination showed that the tumour was composed of primitive voluntary muscle cells.

The interest of this specimen lies in the rarity of this type of neoplasm, and its occurrence in such a young animal.

II. CEREBELLAR ABSCESS IN A YOUNG PIG CAUSED BY CORYNEBACTERIUM PYOGENES.

A young Berkshire pig, about eight weeks old, was sent in alive suffering from what was stated to be "paralysis". On examination it was found that the animal remained permanently recumbent on its right side with all limbs extended. Any attempt to turn it on to its left side was followed by very vigorous struggling, resulting in a return to the right side, when it lay quiet once more.

On post-mortem examination, a double otitis media was found to be present, and on the right side the medial aspect of the petrous temporal bone showed suppurative osteitis. The infection had spread into the contiguous lateral portion of the cerebellum, in which was found an abscess approximately 2 cm. in diameter.

The causative micro-organism was found to be Corynebacterium pyogenes, which had apparently spread via the eustachian tubes from an infection of the upper respiratory passages.

III. HAEMOPERICARDIUM IN A DRAKE.

This bird was submitted with the history of having died suddenly several hours previously without any premonitory signs of illness.

On post-mortem examination, the pericardium was found filled with clotted blood which had escaped from a small rent in the left atrial wall. Such a cause of death has been reported on a number of occasions in horses, but is apparently rare in birds.
CASE REPORTS, Etc.

1. VALVULAR DISEASE IN A GREYHOUND.

By R. D. Earl, 4th Year.

Subject: The animal was a white and black Greyhound bitch, aged 15 months. (Case No. 1782/37.)

History: On 24th June, 1937, the animal was brought to the Sydney University Veterinary Clinic for examination. It had never been raced. Seven weeks previously it had contracted distemper, but had made a seemingly good recovery. Four weeks later the owner noticed swelling of the head, hind limbs, and along the belly. He stated that the swelling of the head was more marked each morning. The animal had gone off its food, but, until a day or so before being examined, would take egg flips and a little milk.

Examination: Temperature, 102.5° F.; pulse, 140 per minute. Oedema of the dependent parts was most noticeable. The hind limbs were affected mostly below the hocks; the submaxilliary space was involved ("Bottle Jaw"). A definite ascites was also clinically evident. The visible mucous membranes were normal. On auscultation the heart sounds were heard over a large area, suggesting a much dilated heart; they were full, regular, bounding and frequent. The animal was given a slow run for about 100 yards. Auscultation of the heart revealed that, whilst the first heart sound was apparently normal, the second heart sound was prolonged and murmuring, producing a hissing effect. The case was diagnosed as "Valvular Disease," and the prognosis was considered to be grave enough to advise destruction. Next morning the ascites had decreased, but the oedema of the other parts had increased. Throughout the next two days various fluctuations of the oedema were noticed, particularly in the "bottling of the jaw."

Post-mortem appearance: Examination of the heart revealed several very small recent vegetations on both the bicuspid and tricuspid valves, while the heart was dilated and the muscular walls much weakened. The following appearances were seen and considered to be secondary to the heart defects:—

The presence of 5.0 ml. of clear fluid in the pericardium; increased pleural fluid; about 250 ml. of light straw-coloured fluid in the peritoneal cavity; general distension of the veins and marked oedema of the diaphragmatic and cardiac lobes of the lungs, less so the apical ones. Patches of oedematous tissue were observed subcutaneously in the lower part of the abdomen and in the legs above and below the carpal and tarsal joints. The spleen was contracted, the liver congested, and the portal vein and the vena cava particularly were very distended.

Additional post-mortem observations were: enlargement of the left kidney, necrotic areas in the wall of the stomach, general inflammation of most of the urogenital tract, hyperaemic intestinal mucous membranes and haemorrhagic and swollen mesenteric lymph glands.

It is held that this condition was due to the secondary invaders causing the vegetation on the heart valves and its accompanying lesions following the distemper virus.

A confusing feature of this case was the marked and irregular fluctuations in the degree of ascites and general oedema.

Acknowledgment.

I wish to thank Dr. R. M. C. Gunn, to whom I am indebted for permission to publish this case.
2. By W. R. Sidman.

The subject was a black and white Fox Terrier dog, aged about 8 years.

History: The history of the case was that some twelve months previously the dog had escaped from the premises while no one was at home. There was a bitch on heat in the neighborhood at the time. The dog had apparently escaped by burrowing beneath a gate. The animal was found next day lying on the street in an exhausted condition and apparently in a bad way. There was blood escaping from the preputial opening, and the animal was blood-stained. He was carried home and, under home treatment, eventually apparently recovered. However, after this the dog was observed to be constantly dripping urine and appeared to have great difficulty in urinating. He was observed to spend up to an hour in some secluded corner of the yard attempting to urinate. Eventually the owner decided to call in veterinary assistance.

Examination: The dog being rather savage, examination at the owner's residence was rather cursory. The bladder was, on palpation, noticed to be fairly full and the constant dripping of the urine was observed. As urethral calculi or pebbles in the urethra, gathered while burrowing, were suspected, the owner was asked to bring the dog into the surgery. The dog was brought in some four days later. He was placed on the table and an attempt made to pass a catheter. Difficulty was experienced in extracting the penis, and on palpation it was found that the prepuce was empty and that the penis could only be felt as a small stump situated right back just in front of the scrotum.

It was concluded from this fact, in conjunction with the history of blood, exhaustion and weakness, that the penis had been amputated, probably with a knife or an axe, while the dog was interfering with the bitch. The constant dripping of the urine was attributed to the contraction of the urethral opening following the wound.


The subject in this case was a brown gelding of the farm horse type.

History: Assistance was called in by the owner to suture a large wound on the leg which had been made when the horse had been entangled in some fencing wire. The wound was some three days old and rather septic, and it was considered inadvisable to suture at the time. It was merely dressed with a carbolic antiseptic oil, and an examination made for further wounds. Only a few scratches were found. The owner was advised to foment the wound and dress with the antiseptic oil.

Examination: About ten days later the horse was brought into the surgery, when it was observed that there was a large suppurating wound just above the off hind fetlock. The horse was extremely lame, the fetlock being lowered almost to the ground when weight was borne upon it. Examination showed that the tendon of the superficial muscle of the digit was completely ruptured and that of the deep flexor also, if not completely ruptured, at least nearly so. The suspensory ligament appeared sound. It appeared that a piece of the wire had penetrated the synovial sheath of the tendon, and infection had set in, causing suppuration, which had brought about the rupture of the muscles.

Treatment: The wound was cleansed and treated with carbolic antiseptic and in three weeks the horse was discharged. The tendons
were still weak, but appeared to be uniting well, and complete rest was advised.

My thanks are due to Mr. B. H. Pottie, M.R.C.V.S., for allowing me to publish these two cases.

4. DIFFICULTIES OF DIAGNOSIS.

By Kathleen I. Farr.

During the last vacation, the writer had the good fortune to see an interesting and somewhat amusing case, which was presented to Mr. Roy Stewart of Randwick. The urgent message received from a nearby greengrocer, was, “Come at once! My horse has tetanus!” Acting on this information all necessary articles, including antitetanic serum, were quickly packed and hurried to the scene.

The horse was standing with neck extended and a strained expression. It had ceased feeding, the saliva was running freely from its mouth, and it was coughing at frequent intervals in a distressed fashion. This condition had apparently developed suddenly, some hours earlier, but interrogation of the worried owner elicited the very definite information that the animal had eaten only chaff previously. Nevertheless the case was diagnosed as obstruction of the oesophagus by some hard substance.

The immediate treatment prescribed was the administration of saline enemas, and the subcutaneous injection of pilocarpine and eserine (one grain of each in half an ounce of solution). This treatment was continued daily, and on the afternoon of the third day the animal suddenly commenced to eat normally and, apart from loss of condition, was evidently none the worse for its experience.

At this juncture, when the case was concluded, the owner disclosed that the horse was very fond of bananas, and had eaten some just prior to taking ill.

Research Note.—There seems to be a definite need for the development of straight bananas.


A good illustration occurred a few years ago of the desire for human company often shown by animals on the point of death.

A nine year old creamy gelding was suffering the greatest agony from urethral calculi (at the time still undiagnosed). While all the hands were away at work he felt his last hour upon him. He made his way to the overseer’s cottage, opened the gate and entered the yard. On reaching the verandah of the laundry he suffered another painful spasm, and as a last mute protest proceeded to kick the copper into its component brick and mortar. This job completed, he breathed his last.

Incidentally, the case was interesting from a clinical point of view; for on post mortem, four calculi, each about the size of a broad bean, were found packed in the urethra. All were of a dark blue colour, and on biochemical examination were found to be composed largely of indigo—probably arising from indican, a product of intestinal putrefaction.

THE HORSE

I know two things about the horse,
And one of them is rather coarse.

Anon., 20th Cent.
The ability to age horses by dental examination is of vital importance to all Veterinarians. Not only is this advice sought for purposes of sale or purchase, shows and the like, but is often invaluable in the diagnosis, prognosis, and treatment of certain conditions.

The problem is not a particularly difficult one in the ordinary course of events, but when a decision is required as to whether the animal is “rising” or “off” any age, many people make an estimate from the dental examination, others “take a shot in the dark,” while the more honest person declines to give a decision either way. When it is considered that the dental picture varies tremendously, even in animals reared and kept under the same conditions, it is obvious that even the person who honestly endeavours to make such a decision on the dental examination alone is often very wide of the mark.

Under ordinary conditions the use of these two terms is not desirable, because they mean nothing to the examiner, and he is often ridiculed by the owner, particularly if the latter person knows the actual age of the animal. However, the greater precision derived from a consideration of the month of the year in which the examination is made, gives these terms a definite value.

The best example is that of the thoroughbred whose official birthday is the 1st of August. Such a horse on dental examination is, say, about three years of age, and the examination is made in June; hence the animal is rising three. Similarly, in the following December the age is three off.

Horses other than thoroughbreds have no official birthday, and other means have to be sought. Take as an example a draught horse in the New England district of New South Wales. In this district the foaling time is between September and December, and it is therefore obviously ridiculous to pronounce an animal as “rising” any age whatsoever in January or February, or any age “off” in August.

For convenience of explanation let us take November as the month in which the greatest percentage of foals are born in this particular district, and the animal in question is about four years of age. If the examination be carried out in February, then since the foal was born in November it must be four years and three months. Examination of the teeth shows the horse to be about four, so that the age is four off.

Similarly, if the examination were made in the following August on the same horse, the age could be confidently declared to be rising five, although the corner incisors, which normally erupt at four and a half, may not have come through. In this case, if we adhere to the fact that the foal was most likely born in November, his actual age would be four years and nine months, or rising five.

On the other hand, if in February a horse is pronounced to be, say—rising five—after an examination of the teeth; the impossibility is obvious, as in such a case the animal would necessarily be a June foal, which are seldom or never seen in Australia, unless the horse was imported from the Northern Hemisphere.

Naturally, this is to a certain degree a variable hypothesis, because all foals are not born in the one month, and therefore a certain amount of judgment and discretion are essential on the part of the examiner. However, in all cases, and particularly when the teeth are slow in erupting, show abnormal wear, or in any case where the age indicated is to be questioned, consideration of this factor will render a decision easier, quicker, and more accurate.
A WIDER VISION
By T. K. Ewer, 4th Year.

It is true that, under the present rigid and unenlightened examination system, almost all the waking moments of an undergraduate, especially if he be one in a professional faculty, must remain clouded, if not wholly obsessed by the fear they inevitably engender. Such is the appalling truth that even certain lecturers, so cursed have we become with this examination fetish, tend to harp dismally on “what I expect you to know,” etc. No wonder, then, that always before us is the haunting problem of cramming temporarily as many ill-assorted facts within our minds as we may contrive to do in the relatively short time of an academic year.

No wonder, then, that the veterinary student tends to emerge with a deplorable narrowness of outlook and a severe restriction of interest. No wonder, perhaps, that the result of the privilege of four or five years at our University is so often the emergence of a veterinarian possessed of an unbalance of random scientific truths—and little else.

Too many men go forth from our school equipped merely with a modicum of technical knowledge, and an official sanction to live upon the use the public may wish to make of it. Most, let it be said, may indeed be capable veterinarians, but are they University men, leaders, men of wide sympathies, of cultured tastes? Apart from the inevitable formation of enjoyable friendships, little of spiritual value has been obtained. In the same way, our contribution to the life and prestige of our University has been negligible.

Yet it should give us pause to reflect that it is just the men, whether from our own school or any other, who possess the wider cultural background, the keener interest in the humanities, who have consistently brought greatest credit to our profession. The status of the profession is measured directly by the calibre of each individual member.

It is true that we, in the Faculty of Veterinary Science, have reason to be proud of our reputation in the realm of sport; and in the living of the full University life, participation in some form of organised sport should obviously play a part. Rather is it to the means of enrichment of our minds, the widening of our sympathies, the deepening of our fund of general knowledge, that it seems to me each of us might profitably turn our closer attention. Insofar as we neglect the opportunities with which the University provides us for these things, so shall we merit the charge sometimes levelled at us that we make of it little more than a species of Technical College.

Without doubt our own Veterinary Society fulfils a most useful purpose, but members could make still more profitable use of it. More varied discussion should follow addresses and, if members submitted more papers of their own, we should all profit. It is hoped that the newly formed library may help to stimulate a wider scientific reading.

Within the University there are almost countless societies whose aims and objects are as diverse as the winds. The inclinations and tastes of Everyman are generously provided for, and it may be maintained with truth that their existence is the very essence of the full University life. Let us join in, then. It is both our right and our privilege.

If our taste is for music, there is the Musical Society, the Gramophone Society. If for books, the Book Society, the Literary Society. The Biological Society discusses subjects nearer our own work. The paramount claim of religion may find satisfaction in the
discussion groups of S.C.M. or E.U. A desire for service as well as fellowship is readily satisfied in the University Group of Toc H, the University Rovers, or the University Settlement. If debating attracts us, and certainly we should all strive to master the art of expressing our thoughts clearly and effectively in public, there is Union Night. Do not only attend it, join in its discussions.

Many Societies arrange lunch-hour addresses to which all are invited. Certainly, attendance at those organised by the L.N.U. or Public Questions Society, wherein knowledgeable men attempt to elucidate aspects of pressing current problems, can only result in profit.

Half of Thursday’s lunch-hour spent at an organ recital within the Great Hall can be a very enriching experience; for the beauty of the building itself, appreciated quietly and in comfort, away from the surge and fret of examinations, must bring enjoyment.

Every one of these meetings is open to us, every one of them would welcome us, and within them we shall find kindred spirits, fellowship with whom must result in our personal gain—in a wider vision.

Perhaps you think this thing a good idea—or have thought so for some time. In that case, I would remind you of John Hunter’s famous remark: “Why think? Why not try the experiment?”

ANATOMICAL RHAPSODY

(In the Modern Style.)

“Aponeuroses,”
I will shower.
Smile,
Like bile,
If you will,
All the while.—
I do not care.
Oh! Your hair!
Like papillae,
On the tongue,
Of the young, or adult mare.
And your eyes—
Slanty, wise.
And their size!
Like a sheep’s,
Darkling deeps.
Whence there peeps—
Upward seeps,
Palely luminous,
Smooth ceruminous—
Thoughts that give me creeps!
I do not care.
Oh! Your ribs
So well “sprung”!
And your hocks,
Neatly hung.
Vertical.
Not a fault,
Gives me halt.
Conformation quite supreme.
What a team;
You and I,
For double harness!

G.R.B.
LAY LAPAROTOMY

By G. R. Brettingham-Moore, 4th Year.

"Quick Boss. Old Blossom's over the bank near Toby's Hut." I was in the shearing shed, rolling and classing for the four blade shearsers. Obviously they would have to be left to the "picker up" for the time being, so off I went. The bank over which faithful old Blossom had fallen was about 6 feet high, and she was now lying on her right side in the gutter at the foot of it.

Alfred, the driver, was busy stuffing large quantities of bowel back through a gash in the abdomen, where the tug-hook of the dray had caught her as she rolled down. His son Reg was sitting contentedly on Blossom's head. Incidents such as these make a pleasant break in the peaceful tenor of country life. Alfred seemed to be making no progress with his stuffing operations. It rather appeared as though he were losing ground, and that the amount of bowel in sight had actually increased to a barrowful.

I made him desist in his Irocrustean task, and sent for needles, sheep dip, soap, water, towels and scissors. By the time they had arrived it had begun to rain, so an umbrella was impounded, too.

The bowel was well smeared with mud from the road, and epithelial debris from Alfred's hands. After washing as well as possible with warm water and soap, it was massaged gently back into the abdomen. By some instinctive process I next sutured the wound as best I could in three layers, and left a drainage opening in the lowest part.

A cotton wool pad soaked in sheep dip was placed in position, and over all a broad surcingle.

The anaesthetist vacated his perch on Blossom's poll, and the mare rose to her feet without much difficulty. She was rubbed down, rugged, and put into a sheltered paddock with good grass and water. Next morning, as might have been expected, the dressings were soaked with pus. For a week they were changed twice daily, and became very putrid.

Certainly Blossom must have had a high temperature, but no one knew how to take a horse's temperature, and it would have served no good purpose had it been done.

In two months she was back again at work as well as ever. Had anyone suggested the veterinary profession to me then, I should have laughed at them—it was all in the day's work.

But since then I have at times recalled a childish determination to be a "Pony Herd," and wondered if at times the veil is not drawn aside, just a fraction. It is a long way from training as a mining chemist, through a war, and a farming interlude, to the haven of the profession.

THE RABBIT

The rabbit has a charming face:
Its private life is a disgrace.
I really dare not name to you
The awful things that rabbits do;
Things that your paper never prints—
You only mention them in hints.
They have such lost, degraded souls,
No wonder they inhabit holes;
Where such depravity is found,
It only can live underground.

Anon., 20th Cent.
THE VETERINARY SCIENCE SPORTS CLUB

OFFICE-BEARERS, 1937:
President: Prof. J. D. Stewart, B.V.Sc, F.R.C.V.S.
Delegate to Inter-Faculty Sports Committee: W. Granger.
Sub-Committees for the various sports.

The recent increase in numerical strength of the Faculty has had two direct and important effects on our Sports Club. In the first case we have graduated to the status of a "major" faculty, for the purposes of inter-faculty sports competition, and thus forfeit certain concessions granted to us as a "minor" faculty. In the second case we must assume the responsibility of providing sporting facilities for a larger number of members.

Our first participation as a major faculty in inter-faculty competitions occurred in 1936, and we were placed third, thereby losing the Tenfold Shield. We heartily congratulate Engineering, who won the shield.

Our need for increased sporting facilities has been generously provided for by the donation of a Tennis Trophy by Mr. Brettingham-Moore, and of a Golf Trophy by Mr McMananmy. In each case the trophy is for annual competition, and the object of its donation is to encourage the respective sport within the faculty. In a further effort to increase the number of active participants in sporting activities, two teams have been entered in both the tennis and the rugby inter-faculty competitions.

In general, it can be stated that a high standard of enthusiasm and support has been maintained in all sections of sport.

SWIMMING.—Sub-Committee: L. Whitten, J. Odbert, R. Long.

Our only placing was a second in the diving by W. Whitten. However, we competed in every event, Miss Scott swimming in the women's events. The attendance of supporters was very poor.

ATHLETICS.—Sub-Committee: R. Biddle, P. Bazeley, F. Hutchinson.

At Festival Day Sports J. Ryan and J. Gill ran to second place in the mile. Several fourths were obtained in other events, but better results cannot be expected unless training is started earlier.

The faculty was fully represented in the women's events.

BOXING.—Sub-Committee: J. Johnson, R. Chappel, J. Odbert.

Together with Medicine and Engineering, we won in two divisions, but the number of our entries was disappointing.

J. Johnson was runner-up in the welterweight.

D. Newman won both middle and light-heavyweight classes. Newman's performance was distinctly creditable, particularly since both events took place within the hour, and since in the light-heavy class he fought above his weight.

ROWING.—Sub-Committee: A. Gunson, P. Bazeley, W. Sidman.

It has not been possible to enter an eight this year.

TENNIS.—Sub-Committee: J. W. McLean, G. Brettingham-Moore, B. Barraclough.

Competition for the Brettingham-Moore Tennis Shield was held on several Saturday mornings of Lent term. E. Shephard and B. Barraclough are this year's winners.

The value of the practice thus obtained has been reflected in an improved performance by the inter-faculty teams.

The A team were eliminated by Engineering after a very close match, while the B team reached the finals, losing to Medicine by the narrow margin of only one game.
FOOTBALL.—Sub-Committee: B. Taylor, F. Hutchinson, H. Pile.
Two teams have been entered to provide for the large number of players.
The A team is very strong, this strength being contributed to by a change into the Monday division, which has enabled Fourth Year men to play.
This team won the inter-faculty competition, thus gaining the premiership for yet another season.

GOLF.—Sub-committee: L. McManamny, J. W. McLean, I. J. Cunningham.
Competition for the McManamny Cup was held at St. Andrew’s Club, Blacktown, on 2nd August. The cup was won this year by J. W. McLean.
A faculty representative team competed in the inter-faculty competitions, and was defeated in the first round by Science.

CRICKET and RIFLE SHOOTING will be held in Michaelmas Term.
During the year many men have gained distinction in Varsity sport. In the Varsity XV are A. A. Blakely, E. J. Callaghan, F. Hutchinson, I. Johnstone, J. S. Stewart, B. A. Taylor. F. Hutchinson was unlucky not to make the Australian Team again, owing to an injury to his ankle.
L. POCKLEY has received the Australian Universities Award for fife shooting.
A. GUNSON rowed in the Varsity eight at Brisbane.
E. G. LOWE is Varsity hockey captain this year.
At this year’s Varsity championship meeting R. POTTS retained his mile title, and won the two-mile run; he was also second in the half mile.
W. P. NICHOLAS was second in the hundred yards run.
Although not able to compete in the Championships, R. A. CHAPPEL won the inter-collegiate half mile in better time than the Varsity record.
D. NEWMAN won the University Middleweight Boxing Championship, the Inter-University Middleweight Championship, and the N.S.W. State Amateur Middleweight Championship.

W. GRANGER.

2nd CAVALRY MOBILE VETERINARY AND 2nd MOBILE VETERINARY SECTIONS

2.C.M.V.S. 2.M.V.S.
B. H. E. Barraclough .... Sgt. W. Granger ................ Cpl.
M. S. Anderson ............. Cpl.
R. L. Turner ................ Cpl.
The activities of these units include annual training camps and visits to the Moore Park Remount Depot, and to the Veterinary Hospital at Mount Holdsworthy. The instruction thus provided in Veterinary First Aid, in horse management, and in horse mastership, offers practical training of very real value.
The units held their joint annual camp at Liverpool in March of this year, while, in addition, the normal regular home parades have been held. Of special note is the good performance of the sections at the Coronation Parade at Centennial Park on 12th May.
The combined dance, held in the Union Refectory, was a most successful function, as also was the theatre party held a few weeks later.
LETTER

To the Editor,

Journal of the Sydney University Veterinary Society.

Dear Sir,—

In a recent article in Nature (Nature 139, 784), attention was drawn to a modern trend of scientific thought, a reversion, the author claims, towards the "Aristotelian" philosophy of the Middle Ages. This "Aristotelian" philosophy he defines as being based on the conception that "Nature is the visible working out of general principles known to the human mind apart from sense perceptions." The "experimental" philosophy of Galileo to which the "Aristotelian" philosophy gave place in the early 17th century, contends, on the other hand, that the first step in the study of Nature should be sense observation; no general principles being admitted which are not derived by induction therefrom. This philosophy has held sway since its inception. As the author of the article remarks, "It is no idle boast that until now the thoughts and practices of men of science have been such as Galileo would have approved." That a change is taking place is evident, however, from the "texts" which were taken for the article.

"And we do hereby make and constitute the said society by the Name, President, Council, and Fellows of the Royal Society of London to be a Body corporate, to be continued under the same name in a perpetual succession; and that they and their successors (whose studies are to be employed for the promoting of knowledge of natural things and useful arts by experiments . . . ) shall . . . (First Charter of the Royal Society, 1662)."

"It is in fact possible to derive the laws of dynamics rationally . . . without recourse to experience (Prof. E. A. Milne, Proc. of the Royal Society A., 158, 329; 1937)."

The commonest cause of this "heresy" is considered to be the theory of relativity, and it is only as far as this that the article carries the discussion. Does not, however, an Aristotelian outlook tend to make itself at times evident in the biological sciences? Is it so rare that the dogmas of our biological knowledge, when analysed, are found to have arisen out of theories based on assumptions, the assumptions having later been forgotten? And what of the dogmas that remain unanalysed? In other words, can we believe anything, and if so, how much?

I am, yours etc.,

R.N.W. 23/7/'37.
FIRST AID

Before Hobnailing the Liver.

Before Occasions devoted to Hobnailing the Liver it is recommended to take half to one ounce of Olive Oil. The Parkinson tierbal states that "if one doe eate five or sixe bitter Almonds before he fall into drinking company, it will keepe him from being overtaken more than the rest." On the occasion itself, deal with imminent Emergencies by partaking of the following sedative: Acid Hydrocyan Dil.miv, Tr.Nuc.Vom.m.x, Tr.Aurant, m.x, Aqua Cinn. ad ʒi. But to such as cannot themselves partake, administer a potion of Liq. Ammon. Acet. ʒi. and await the event with kindly interest.

—Quoted from The Week-End Book.

The Morning After.

On the Morning After, comfort the cold and feeble brain by recalling the warning of Mayster Isaac Judaeus who saith: "It is unpossyble for them that drinketh overmoche water in theyr youth to come to ye aenge that God ordained, them."

If it matters little to you whether the age that God ordained be reached or no, drink the following cordial: Take of Sp.Ammon.-Aromat.m.x, Sodii Bic. gr.xv, Tr.Capsici m.iii, Tr. Cinc. Co.m.x, Tr.-Nuc.Vom.m.x, Sp.Chlorof.m.x and Water of Orange Flowers up to ʒi. Take also of Caffein Cit. gr.x, Tr.Aurant mv; and water up to ʒi. Add two tablespoonfuls of the first to two of the second, and drink whilst the effervescence lasts.

Some recommend—if only the head suffers—to take of Calcium Lactate, gr.xxx.

—Quoted from The Week-End Book.

EPITAPH

Here lie I, Martin Elginbrodde:
Ha'e mercy o' my soul, Lord God,
As I wad do, were I Lord God,
And ye were Martin Elginbrodde.

—From an Aberdeen Tombstone.
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<table>
<thead>
<tr>
<th>Product</th>
<th>Retail Price</th>
<th>Retail Price</th>
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<tbody>
<tr>
<td>Alterative Blood Mixture</td>
<td>2/9</td>
<td>St. Vitus Dance Powders</td>
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<tr>
<td>Anti-Diarrhoea Mixture</td>
<td>2/9</td>
<td>Tonic Food</td>
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<tr>
<td>Anti-Diarrhoea Powders</td>
<td>1/6</td>
<td>Training Liniment</td>
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<tr>
<td>Canker Lotion</td>
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<tr>
<td>Canker Powder</td>
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<tr>
<td>Eczema Pills</td>
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<td>Eye Lotion</td>
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<td>Eye Ointment</td>
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<td>Gastritis Pills</td>
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<tr>
<td>Iodine Dog Soap</td>
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<td>Pad Paint</td>
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<td>Rheumatism Pills</td>
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<tr>
<td>Skin Lotion</td>
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<tr>
<td>St. Vitus Dance (Chorea) Mixture</td>
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