For many years past this Company has maintained a Technical Service from North to South, East to West. Wherever there's a welding or cutting job to be done—from the building of a bridge to the humble repair job—this Technical Service is available at call.

With a wealth of experience and skill, gathered from years of research and practical application to engineers and industry—our wholehearted cooperation is yours for the asking.

Free service available through

THE COMMONWEALTH INDUSTRIAL GASES LIMITED
ALEXANDRIA, N.S.W. . . . ALL STATES
DAVID JONES FOR SERVICE SINCE 1838

White Coats for Professional Men

We’ve put everything we can into these White Professional Coats. Check up and see that this is so. They give you freedom of movement, they have roomy, comfortable fitting armholes, and they’re made of British White Drill of thoroughly dependable quality.

"Doctors" Coats. Of three-quarter length it has three large pockets. half belt at back. Price, 22/6 and 2 coupons.

"Sac" Coat. This half length coat has three handy patch pockets, full turn-up on cuffs. Price, 16/3 and 2 coupons.

"Dissection" Coat. A full length coat, ensuring all-over protection. It has through pockets and half belt at back. Price 31/10 and 2 coupons.

All sizes are available for these three styles.

MEN’S WEAR AT DAVID JONES’ TWO STORES

LIVABIX

THE BEST ALL-ROUND FOOD DIET

YOU CANNOT AFFORD TO BE WITHOUT THESE BISCUITS—WRITE TO-DAY FOR A FREE TRIAL!

• Contains LIVER (66% Protein, 17% Fat), WHILE WHEAT, WHEAT GERM, COD LIVER OIL, CALCIUM, BONE MEAL, MALT, YEAST and CHARCOAL
• The food that is sufficient and is fit for human consumption.
• Here you have the essential Fats, Carbohydrates, Proteins and Vitamins.
• Wards off a tendency towards Gastritis, Hysteria and Eczema.

Obtainable from Anthony Hordern & Sons Ltd., Mick Simmons Ltd., Nock & Kirby, Val Angrim’s Dog Shop, leading Country Storekeepers and local Produce Merchants.

Abbco Bakery Phones: WB1223 and WB1588
483 BALMAIN ROAD, LEICHHARDT - SYDNEY
In 1919 the Cooper Technical Bureau was founded at 47 Russell Square London; and in June, 1940, twenty-one years later, it moved to its newly constructed Laboratories at Berkhamsted, quite close to the Cooper Research Farm. In connection with this move, Dr. F. A. Cooper, Principal of the Bureau, said:

"We invite the free co-operation of our distinguished colleagues in science in all parts of the world, and we seek the experience and advice of all farmers and stock-owners on the economic problems with which they have to contend.

"We are confident that our Company's enterprise in providing such excellent facilities for the advancement of applied science will be well repaid in the services we shall render to them and to the agricultural community throughout the world."

WILLIAM COOPER & NEPHEWS (AUSTRALIA) PTY. LIMITED

Proprietors of

COOPER'S POWDER SHEEP DIP

Cooper House, 9 O'Connell Street - Sydney
# CENTAUR

The Journal
of the
Sydney University Veterinary Society

Number Seven.

Editor: D. A. TITCHEN.  Asst. Editor: Miss A. GUBBINS.

## TABLE OF CONTENTS.

<table>
<thead>
<tr>
<th>Article</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Photograph</td>
<td>2</td>
</tr>
<tr>
<td>The Veterinarian and Wool Research</td>
<td>3</td>
</tr>
<tr>
<td>Report of S.U.V.S.</td>
<td>6</td>
</tr>
<tr>
<td>Sports Club</td>
<td>8</td>
</tr>
<tr>
<td>Centaur, 1944-45</td>
<td>11</td>
</tr>
<tr>
<td>Final Year, 1944, Photograph</td>
<td>12</td>
</tr>
<tr>
<td>1944 Graduates’ Notes</td>
<td>13</td>
</tr>
<tr>
<td>Third Year Notes, 1944</td>
<td>15</td>
</tr>
<tr>
<td>Women’s Notes, 1944-45</td>
<td>15</td>
</tr>
<tr>
<td>Editorial</td>
<td>17</td>
</tr>
<tr>
<td>Cheaper Milk for Sydney</td>
<td>18</td>
</tr>
<tr>
<td>A New England Property</td>
<td>19</td>
</tr>
<tr>
<td>Veterinary Science Pays Dividends</td>
<td>21</td>
</tr>
<tr>
<td>Enterotoxaemia</td>
<td>23</td>
</tr>
<tr>
<td>The Geneticists Manifesto</td>
<td>24</td>
</tr>
<tr>
<td>If You Want to be a Vet.</td>
<td>27</td>
</tr>
<tr>
<td>A Word About Fiji</td>
<td>28</td>
</tr>
<tr>
<td>S.U.V.S., 1945</td>
<td>31</td>
</tr>
<tr>
<td>Fifth Year, 1945</td>
<td>32</td>
</tr>
<tr>
<td>Final Year Photograph, 1945</td>
<td>33</td>
</tr>
<tr>
<td>Fourth Year, 1945</td>
<td>34</td>
</tr>
<tr>
<td>Third Year Notes</td>
<td>35</td>
</tr>
<tr>
<td>First Year</td>
<td>36</td>
</tr>
<tr>
<td>Honour Roll and Enlistments</td>
<td>37</td>
</tr>
</tbody>
</table>
THE VETERINARIAN AND WOOL RESEARCH

Under the terms of the Wool use Promotion Act, which became operative on July 1st, 1945, funds to the value of £650,000 per annum will become available for Wool Research and Promotion. Of these funds half will be provided by the Wool Growers from a tax of 2/- per bale on all wool grown, and half by the Commonwealth Government.

At least half of the total amount will be spent on research, and the remainder on wool publicity and promotion, through the Australian Wool Board and the International Wool Secretariat in London.

Scientific research will not be limited to biological research, but will include textile research, and economic research into both biological and textile production problems.

What will this whole programme mean to the veterinarian? He will, of course, find his main interest in the biological side of the work, but not necessarily so much in the more accustomed field of disease investigation and control as in that of general sheep husbandry.

Over the past fifteen years considerable effort has been devoted to sheep disease investigation, and Australia has to its credit some strikingly successful work, as for example, that relating to the nature and control of Black Disease, Foot Rot, the trace element deficiency diseases, parasitic infestations, and so on. There can with advantage be considerable extension of this work, since modification and improvement of methods of control are nearly always possible, while in addition, the solution of many important diseases still eludes our research workers, and fresh problems are always likely to arise in consequence of changed methods of sheep husbandry.

An example of this last category is the fertility problem which has in recent years become of major importance in Western Australia, following, or so it is thought, the highly successful introduction of a special strain, the Walganup strain, of Subterranean Clover on much of the poor grazing lands of that State. In these areas carrying capacity may have been quadrupled but gradually lambing percentages have fallen—in some cases as low as 5-10%—and lambing is associated with dystocia, prolapse of the uterus, and other abnormalities. Similar new and unexpected problems will undoubtedly arise from time to time.

In contrast, however, to the considerable volume of disease research, we have largely neglected the field of genetics, nutrition and sheep management and here the opportunities for increasing efficiency of production and reducing losses are at least as great as from the investigation and control of disease.
Further, it is to be hoped that with the extension of research by the Commonwealth there will, through the agency of the State Departments of Agriculture, be a great expansion of extension work in order to ensure that knowledge arising from research is made available and used by the farmer and grazier. We cannot afford the serious waste of effort which has been suffered in the past by failure to apply in practical form the advances in knowledge which research has provided. The time lag in the adoption of the Mules' Operation for the prevention of Blow Fly Strike has undoubtedly cost the country some millions of pounds over the last six to seven years.

Extension services must therefore be enlarged and improved and the status of field or extension officers regarded as every bit as important as that of the research worker, just as it must be recognised that extension work requires special techniques which involve training facilities that must also be provided.

It is probable that development of biological research will take the form first, of the establishment of a major laboratory on the outskirts of Sydney, at which fundamental work in genetics of the sheep, and into its physiology and biochemistry will be centred. Here veterinary graduates with a special interest in and aptitude for research may expect to find considerable opportunities for employment, though in many cases some post graduate training to fit them for these studies will be necessary.

Secondly, a chain of regional sheep and wool research stations is likely to be set up year by year until all the major sheep raising areas of the Commonwealth are covered. On these stations, problems of nutrition, genetics, sheep and pasture management and disease control will be studied under the local conditions of the region. On them, too, it is to be hoped that State extension officers will be located, in close association with research workers, and from which they will convey the results of the work to the stock owners of the district. It is hoped eventually that these regional research stations will cover all the main sheep raising zones of the Commonwealth, and that they will become centres of scientific stimulus to the sheep industry of the surrounding district. How many there will be and when they will be established depends on a variety of factors, and not least the supply of trained personnel which can be drawn upon to staff them. At the moment there are simply too few veterinarians, agrostologists, animal husbandmen and agricultural economists to allow of the contemplation of the immediate establishment of more than two or three at the most.

Let us imagine, however, that there were some scores of bright young graduates with an inclination and aptitude for research in all the above categories available. We would then want to establish these stations, sometimes under the auspices of the Council for Scientific and Industrial Research, sometimes by developing existing State experiment stations, in perhaps the following districts: in Queensland, at Longreach on the Central Plains, at Cunnamulla in the South-West and
Dalby on the Darling Downs. In New South Wales, at Moree, Armidale, Trangie, the Liverpool Plains, Forbes, the Southern Tablelands, Wagga and Deniliquin; in Victoria, at Wangaratta, Werribee and at Hamilton in the Western District; in South Australia, at Clare and perhaps in the South-East; in Western Australia, at Kojinup in the so-called Clover Belt, and at other centres such as Wongan Hills in the drier wheat belt, and finally in the Midlands of Tasmania.

It is probable that even to approach the completion of this list of stations, concurrently with the establishment of another major biological laboratory for the more fundamental studies will take up to ten years.

It is obvious, however, that the attempt to bring adequate scientific resources to the assistance of the wool industry will provide an additional and important avenue of employment for veterinary graduates. It should be possible before long for the authorities responsible to define just what the scope of this employment is likely to be and for a statement to be made of the facilities which will be provided for graduates interested to obtain post graduate training, either in Australia or abroad, in one or other fields of investigation. Sheep and wool research, with its aim of establishing Australia's greatest industry on firm foundations, should provide at least as satisfying a life's work as any other that the Commonwealth has to offer.

— I. CLUNIES ROSS.

ELEGY

Drought!
The land is stricken
The multitudinous particles, the soil,
Dehydrated
Play on the wind's enticing wings
And are blown away.
Bare stone
Hard subsoil breaks through,
With multi-heads of stark infertility
Strewn hazard-like
In the barren gloominess
Beneath the haunting shadows
Of trees
Roots reticulated by the ravage
Of erosion's grim impartiality,
There lie the shiny bones
And bone tightened pelts of death.
Now Nature's fury is unbent . . .
The kindlewood of our hopes
And the very spark which illumes our dreams
For a land of flowing joys
With the soul of the soil
In the wind's wings . . . are blown away.
Mr. President, Ladies and Gentlemen:

It gives me great pleasure to submit this report on the activities of the Society during 1944.

Considering the disorganised conditions during the year, with Third and Fourth Year's examinations in September and a four term year for most of us, I think the Society put up a good record.

During the year the Society held seven meetings including the following addresses:—

April 21st: Professor J. D. Stewart gave an inspiring address upon the Society, its history, aims and achievements.

May 5th: Lieutenant G. Simonson, of the United States Army Veterinary Corps, delivered a very enjoyable and instructive address on his experiences in private practice in the United States.

June 23rd: Mr. J. R. Stewart, B.V.Sc., gave a very instructive address on the things to do and not to do in private practice: This talk was packed with the good advice gleaned from much experience.

July 28th: Mr. R. M. Webb, B.V.Sc., delivered a very interesting talk about the different types of eyes and their function, seen in the animal kingdom.

The other meetings were mainly concerned with domestic affairs of the Students. The Society as a whole submitted a report to the Faculty, dealing with the proposed alterations to the course. Many of these suggestions have since been adopted by the Faculty.

The Society passed a motion opposing the proposed site of the University Theatre, and offering alternate sites. This plan was submitted to the Theatre Committee of the University and the site altered for the present. During the year owing to the fact that Fourth Year was away on extra-mural work, Mr. G. Skillman was elected Acting-President and Mr. A. C. Juleff Acting-Treasurer in place of Messrs. C. H. G. Irvine and E. R. Tuohy respectively.

A dinner was held in the first term as a farewell to Final Year and a welcome to Freshers. This was held in the Union, and proved a very great success socially. Over a hundred guests were present and a good time was had by all. A dance was run in conjunction with the S.R.C. on the Wednesday night of Festival Week. This function was a great success both financially and socially.

An attempt was made to have a Faculty Picnic during the year, but the arrangements fell through at the last moment owing to very heavy rains. I think that this idea should be carried forward this year to promote congenial relations between
the students themselves and among the students and staff. I
know the members of the staff are in favour of all such attempts
I would like to stress this point as Dr. Gunn has already spoken
of this matter again this year. I can only hope further attempts
in this direction will meet with greater success.

*I don't want to complain, but I found that support of any
movements, be what it may, was lacking from the general student
body during the year.* This to me indicated a deplorable lack
of Faculty Spirit, made even more deplorable in our Faculty
in view of the consistent support of Faculty activities by the
students in the past. All this, in spite of the fact that at the
Annual General Meeting last year, members of the Society stood
up and criticised the retiring Executive Committee because they
were lax in organisation of Faculty affairs. As a result of this
criticism the various committees looked for strong support in
their various functions, but alas! found it lacking.

That, ladies and gentlemen, is my only complaint. I hope
that future Committees will not find you lacking in generous
support of their work. I wish to thank the members of the
various Committees for their very generous support in all
activities undertaken by the Society. I can truthfully say that
the greater part of the work of organisation was lifted from my
shoulders, and for this I am very grateful. It made the job of
Secretary a very pleasant one and not a worry and a lot of
work as is usually the case.

In conclusion, I want to wish the Society and all its members
every success and happiness for the coming year.

J. P. WOODBRIDGE, Honorary Secretary.

**URBS IN RURE**

A leading W.V.S. official in Berkshire has given me the
following essay by a ten year-old boy evacuated from London:—

"The bird that I am going to write about is the owl. The
owl cannot see at all by day, and at night is as blind as a bat. I
do not know much about the owl so I will go on to the beast
which I am going to choose. It is the cow. The cow is a
mammal. It has six sides, right, left, an upper and a below. At
the back it has a tail on which hangs a brush. With this it
sends the flies away so that it will not fall in the milk. The
head is for the purpose of growing horns and so that the mouth
can be somewhere. The horns are to butt with. The mouth is
to moo with. Under the cow hangs the milk. It is arranged for
milking. When people milk the milk comes and there is never
an end to the supply. How the cow does I have not yet realised,
but it makes more and more. The cow has a fine sense of smell,
one can smell it far away. This is the reason for all the fresh
air in the country. The man cow is called an ox. It is not a
mammal. The cow does not eat much, but what it eats it eats
twice, so that it gets enough. When it is hungry it moos, and
when it says nothing it is because its inside is full of grass."

Acknowledgements to "Home" and Pat Stuart.
VETERINARY SCIENCE SPORTS CLUB
OFFICE BEARERS, 1944

Patron: Professor J. D. Stewart.
President: Mr. W. Crogan.
Vice-Presidents: Professor I. Clunies Ross, Dr. R. M. C. Gunn,
Dr. H. R. Carne, Mr. R. M. Webb, Mr. F. Whitehouse,
Mr. J. W. Newcombe, Mr. H. J. Geddes.
Honorary Secretary: Mr. J. Fearn.
Honorary Treasurer: Mr. K. Garnett.
Committee: Messrs. J. Berriman, D. Thompson, W. Thompson.
Delegate to the Inter-Faculty Sports Committee: Mr. W.
Thompson.

Sub-Committees

Swimming: Messrs. Titcher, Bentley.
Boxing: Messrs. J. H. Irvine, Dennis, Ashcroft.
Golf: Messrs. J. M. Irvine, Bentley, Titcher.
Tennis: Messrs. Berriman, L. Williams, Ackary.
Cricket: Messrs. Bennett, D. Thompson, W. Thompson.
Football: Messrs. Robson, Macadam, Evans.
Basketball: Messrs. Titcher, Fearn, West.

General

This year there was a much more marked display of interest
in sport than in 1943. Despite the fact that both interest and
success waned as the year lengthened, we feel that the Vets.
have put on a fair show when we consider our smallness of
numbers and the fact that some of us are, at various times,
far away from the rest. We hope that the interest and success
of the earlier part of the year will be maintained throughout
the year in 1945.

Cricket

Our team was weakened considerably on the day of our
match against Agriculture by the absence from the University
of the greater part of our "stars." Agriculture had no trouble
in eliminating us from the competition, despite the time of the
match being limited to two and a half hours of play by a terrific
storm. The only bright spot was a very nice knock by "Sam"
Robson, of 26 not out... our total was 41. Agriculture answered
with 2 for 50 before the bad light stopped further play.

Boxing

For the second year in succession the Vets. failed to provide
a single representative. This is really deplorable, in view of the
strength of the Vets. in this field of sport in the past. We hope
that 1945 will bring with it a strong team and that we will be
able to regain some of our past glory in this field.
Golf

A lamentable lack of enthusiasm resulted in no Vet. team in this sport. Conditions are trying as far as golf is concerned, but it is hoped that in the not too distant future things will brighten up a bit and that we will be able to put on a better show than we have been doing.

Swimming

The swimming was held at the very beginning of the first term, before Vet. had time to realise it was on and organise accordingly, it was over—hence not one representative took the plunge.

Athletics

Thanks to good urging by Rex Hartwell an excellent team took the track. The competition was very close, the result being in doubt right until the last event, when the Greasers sneaked up and "pipped" us. The star performer was Les McKeand, who broke records with Williams in the Discus, and McClure, in the Hop, Step and Jump. McKeand and McClure also pulled off the Broad Jump. Hartwell, Webster, Thompson and Manefield put on a very fine performance, winning the 440 yards relay in almost record time, despite the wet track.

The strong representation of Vets, both on the field and in the stand was very encouraging. Congratulations for a fine job to all who participated.

Basketball

Vet. was very strongly represented at Basketball, showing no trouble in sailing to the final, where our opponents, Science, failed to show up and caused us considerable trouble by demanding a play-off later in the year. Their talking proved of no avail to them and the honours are ours.

Tennis

Early in the year we were able to run an Inter-Faculty Singles and Doubles Tournament. Considerable interest was shown and Fred Evans pulled off the singles in nice style. Partnered by Brian Downey, Fred was again successful in the doubles. In the Inter-Faculty contest we were defeated in the first round by the Engineering B team. Our representatives were Williams, Willgoose, Kelley and Hardy.

Football

We faced the football competition with great optimism on inspecting our large batch of new Kiwis and we weren't disappointed. We were victorious over Engineering, Science and Agriculture in the first three rounds. Engineering and Science did not offer much opposition but Agriculture turned on a surprise along with a few worries before we managed to get their measure and overcome them.

In the fourth round we met Dentistry and although we were defeated, our team went down fighting and were by no
means disgraced. The match was very closely contested and with a little more luck we might easily have been in Dentistry's shoes. Our last game was with Medicine. When our team was leading 44-0 with another ten minutes to play, the referee and the Med. linesmen decided they had had enough and put an end to the cricket score.

Unfortunately there were no finals this year, so we had no opportunity to revenge our one defeat. The whole team played excellent football, but perhaps the outstanding performer was Pete Fallon, who was eventually persuaded to play Club football and promptly made his presence felt in the first XV. "Gus" Willgoose gave some outstanding displays as half, while Jim Macadam and Bill Crogan put in a lot of work, not only in the pack, but also in organising and getting the team on to the field. To the whole team we extend our congratulations for such a fine display and hope that you will have better luck next year.

"UDDERANCES"

Under the caption of "Udderances," the Massey Agricultural College students' magazine, "Chaff," propounds the following: "To be successful a dairyman must be udderwise. Many udder facts must be known. All that a dairyman is he owes to udders. While feed is important, milk is made from udder materials. Cows must be milked from the udder end, and many cows are udderly ruined by poor milking; so do unto udders as you would have them do unto you."

CLINICAL EXAMINATION

Demeanour good, my word quite bright,
Can poke and scratch without a fight.
Respiration, it seems O.K.
Breathing well as Night's not day.
The temp., Oh dear, I near forgot,
The Weapon quick, or I'll be shot.
The pulse, the artery's easily found,
It feels alright, in fact, quite sound.
Heart sounds, Ah yes, the gadget quick,
The sounds are heard (we sure are slick)
Membranes all right, the eyes quite clear,
The lungs, Oh dear, please have no fear,
The sounds normal, no rales, no pains,
The abdo. right, the dog it feigns.
Cripes no, just look! A toe nail broke,
Dear me, was this all for a joke?
The sulpha drug just slam it on,
Yes, wrap it up . . . Oh, dog, begone.
Our work is done, let us go quick,
No doubt at all, we Vets are slick.

—G.J.S.
This issue of *Centaur* would have been a dismal failure if in our innocence we had relied on contributions from the junior years to make it a success. Actually, it seems reasonable to expect that the major proportion of contributions would come from these junior years, having (as they have) more time on their hands than the senior students. However, if it were not for the Final Year’s keenness there would have been no *Centaur*. *Centaur* is your journal; you have the opportunity to make it something worth keeping as a memento. How about having a shot at it next time?

Taking into account the extra pressure of work with the abbreviated nature of the course over the past few years, it has been decided that this issue of *Centaur* will be for 1944-45 and the next for 1945-46, this alteration should help to catch up on the time-lag previously experienced in the appearance of *Centaur*.

Third and Fourth Years wish to offer an expression of thanks to the Faculty for the invitation to tender their ideas and suggestions as to the future nature of the course. Particularly do we wish to thank Dr. Gunn, at whose instance the invitation was made, for his generous gesture first in making the offer and secondly in discussing the proposals with our representatives.

The S.U.V.S. takes this opportunity of tendering congratulations to Mr. A. W. Banks on his recent appointment to the post of Lecturer in Bacteriology.

Mr. J. W. Newcombe’s generous donation has very substantially added to the extent of the Library. It is to be hoped that students will avail themselves of the opportunities offered by these additions and so express their gratitude to Mr. Newcombe in a manner far more effective than mere words . . . by using the books to advantage.

It is with deep regret that we learn of the loss by Mr. F. Whitehouse and his family of his son Peter. All of us join in extending to Mr. Whitehouse our sincere sympathy.

We wish to thank Mr. Geddes for his assistance and advice in compiling of the editorial material.
FINAL YEAR, 1944.

Back (from left): D. Morison, D. Thornbury, J. McNiven, Miss N. Wickham, G. Osborne, K. Baker, R. Irvine, N. Freeman.

THE 1944 GRADUATES IN BRIEF

N.W. (Nancy): "Oh, what a lot of drivel! That man puts me to sleep."

The only gentle light to weather the gusts of Veterinary final years and not flutter. She was always bright and cheery although not exempt from an occasional winge. Nance always impressed her fellows with the constancy of her opinions on the nature of matter but of late years she, too, was convinced of the variability of phenomena and studied at great length (especially during the farm and special term) that diabolical distribution of data on Oxoplasm.

K.B. (Bake): "Aw, come and do some work Bray."

One of the shy lads of the year who gained confidence, however, as the years progressed. Although his methods of reading and re-reading notes ad nausem did not appeal to some of us, he produced good solid results right throughout the course—always with a fair sprinkly of credits. He also made a good stand in the noble art and upheld the Faculty as Bantam-weight Champion.

W.N.F. (Noel): "It's not really worth going to, it's all in the notes."

This man was perhaps best known for ravings about his greater interest in the Medical Faculty and for his frequent sorties to the Union, the Quad and classic (corny to us) musical recitals. His abstinance from 'burning the herb and consuming the hops' seems to exclude him from the general run of Vets. As a student he progressed favourably but his theory (held by others, too, I believe) that one only has to study the last half of the last term, had to be modified after third year.

R.D.J. (Bob): "Coming up for a noggin?"

The year picked Bob up in second year and was never to regret it. He ran abreast of the best in studies and field right to the end and made his weight felt in many a spot—especially the Faculty boxing. A good solid man was Bob and always willing to help. His main pastime was the U.P. and other allied institutions.

J.J.S.Mc. (Mac): "What about a quickie, Dick!"

Another champion of Medicine and frequenter of the classics but a good man for all that. On the field the year was proud to say they had with them the Captain of Varsity 1st Hockey. As an exponent of the noble science of Oxometry this man graduated with honours. Now, in stature Mac was not excessive, but in some ways he excelled—however, it has been rumoured he has found what he has been looking for all these years.

D.L.M. (Stonker): "You should have seen the eaglehawk I caught last week-end."

Solid is the word for Don, both in second row and his studies—not once did he falter in his stride. Here is a true
lover of Nature and all spare time found Stonker catching, training and observing the flora and fauna of our bush. In keeping with this is the rumour we've heard that Don is to be future apiary chief of Department of Agriculture—just another bee man.

\[ \text{H.G.O. (George): "Got a roll, Jack?" or, "If you insist, Dick."} \]

Quite a nice lad when he first arrived from the north, but I'm afraid he must have fallen in with bad company. George will be remembered, I should say, for his ability to argue into or out of a situation, prove his ability and for his luck at tossing a coin or betting (he always won) but I suppose the smokers of the year will remember him best of all.

\[ \text{B.L.R. (Bev): "Hey, did I tell you the one about the..."} \]

One of our trainees from the Department of Agriculture—rather quiet in the early years but later began to prove himself. He was unsurpassed throughout the course not only scholastically but also in spinal treatments, passing the bull and stock-taking. Oxymetrically speaking he was prime. Mention must be made, of course, of his music, the crowd began to jig for miles around when Bev hit the ivory and many's the time he and his confederates agglutinated in the Badham room to hear Fats, Arte and such-like corn artists get in the groove.

\[ \text{R.S.T. (Dick): "Well..., you see..., it varies..."} \]

Another one of our quiet members, who blossomed forth (in studies and other spheres) in later years. In the field he was always a pillar of strength in the back line and although frequently threatening to give up the game after getting half killed each week, we would see him in the team again next game. Given an interesting job in a picturesque district together with a few of the necessary amenities of life, this man would have his Eldorado.

\[ \text{J.E.W. (Jim): "No, you tell him what to do with it, Bev."} \]

The athlete of the year, being indespensible in practically every phase of athletic activity—half for the University 1st XV., Captain of Vet. Sc. XV. and basketball team and bike riding, are only mentioning a few. Always keen on doing things for the Faculty, Jim was forever organising functions, etc., and so was Year Rep. and one year Hon. Sec. for the Society. He really has nothing to recommend him other than the ability to pass the bull and a sound practitioner's viewpoint.
THIRD YEAR NOTES, 1944

After unloading the burden of knowledge in writing and passing the critical eye of the examiners, we boldly walked into our third year to be stricken with penophobia (dreaded disease of all students) and stunned with all the —ologies we had encountered in getting here. However, we pride ourselves that our appearance is as yet unmarred by the ordeal (don’t look at us on Monday mornings).

First term was taken fairly easily in due consideration of the weather and the remoteness of the ever threatening examinations. However, we got cracking in the next couple of terms. Still, work was mixed with play, the year patronising the Faculty Dinner and the Dance with all due enthusiasm and, of course, enjoying themselves very much.

Mr. J. P. Woodbridge was elected the Hon. Sec. of the Society and heads the year’s contribution of executive genius to the numerous committees looking after the Society’s affairs.

Our traditional representation in the field of sport was maintained. J. F. Macadam was the only member of our year in the football team. R. D. Hartwell having been scratched as the result of a broken ankle, sustained while playing against us in a preliminary match. In athletics we were again represented by R. D. Hartwell, who served as chief urger, manager and persuader and, of course, also competing. R. J. Titcher was our only representative in the successful basketball team.

Of course, there was the occasion on which our dear ladies were to be seen running around at some sport or other ("Oh, what little short shirts . . . sorry, skirts"), anyhow, it was very nice to watch . . . let’s have another performance some time, girls.

In Third Year one says:—
That pigeon racing has not proved a profitable hobby owing to the extraordinary prevalence of pathological conditions as yet undiagnosed by the layman.
That being Leurad away is permissible but that Varsity vacations should coincide and that the mountain air was just what the doctor ordered.
That Shanghai Lil was well named.
That form was studied a lot—too much for some who giggle.
That masseuses make good tea brewers for those who wheel bath chairs.
That blowflies are being eradicated.
That rum does not preserve bone.
That punting is profitable . . . sometimes.

WOMEN’S NOTES, 1944-45

Despite the ominous decline in numbers the nearer to fifth year we progress (fault purely of examiners) nine women chose to ignore the warning and started out in first year in 1944, and have been enrolled in first year, 1945. Second year, 1945, has the largest number of women, numbering 11 in a year of about 70. In all there are now 25 women in the Faculty.
We feel that congratulations are in order for Miss Nancy Wickham on her graduation last year, as the only woman graduate of her year—pessimists please note. She is now an assistant bacteriologist and demonstrator in pathology and bacteriology.

Apart from an excellent win for the tennis team (M. Stewart, A. Francis, J. Stainforth and H. McVicar) against Medicine in the Inter-Faculty tennis, nothing spectacular was achieved by our women in the sporting field. The excuses were numerous—especially when the time for practice drew nigh and enthusiasm without zeal was too much in evidence. We feel sure that with Josie Stainforth as Sports Representative for 1945 we will be roused from our apathy and that some of us, at least, will be able to lend the men the support they merit, athletically as well as vocally. Give Josie plenty of encouragement by co-operating with her in making the best use of the talent that must lie in the midst of our unprecedented 25. To some extent our lethargy in sport was made up for by enthusiastic participation in the round of social activities.

Our heartiest congratulations to Peg and Alan Banks on the birth of a daughter, Anne. Peg graduated in 1943 and married shortly afterwards. Margaret Stewart has announced her engagement to Squadron-Leader Loudon, D.F.C., of Lae. We wish you all the very best Maggie. Your dissecting coat still carries the torch even if its light is a bit obscured by the length of the sleeves. Mrs. Josta Rogers (nee van Lenning) left us last year to be married. Best of luck Josta and we hope you are very happy in America.

We wish Fifth Year success in their exams... very close at hand at the time of writing. We bid our new first years and second years from Victoria and New Zealand welcome. Well, at last, things are looking up; as we write this we are overjoyed to see two youthful female enthusiasts springing lightly through the corridor en route to the oval for training (fifteen times round every day 'tis rumoured)... good for you girls.

ST. NED KELLY

The resource of Australians, usually equal to all occasions, was exemplified in a prisoner-of-war camp in Italy when ready inventive faculty earned them a day’s holiday. The Australians were impressed by the number of saints’ days observed by the Italians, and as these observances involved holidays from work they had obvious merits. The Australian prisoners, however, were not permitted to share these holidays. So they tried an experiment. They approached the camp commandant and announced that a certain day would be, to them, an important saint’s day, and asked leave to observe it as a holiday. To their gratification the request was at once granted, but an unexpected complication arose when the commandant inquired the name of the saint. Audacity equaled resource in the reply: “St. Ned Kelly.” The Italian had never heard of Ned Kelly, and the Australians got their holiday.
EDITORIAL.

The veterinary profession stands at the beginning of what can be a new and glorious era. We have, on the one hand, a rapidly growing appreciation of the part the veterinarian can play in his traditional role as a healer and, on the other, an ever-widening sphere of activity, particularly in animal husbandry. Thanks to the sterling work of the pioneers of veterinary research in Australia another great field for veterinary endeavour beckons members of our profession.

The growing appreciation of the veterinarian’s clinical work is in part a product of the steady faith of those whose own fine work and example helped to keep alive the spirit of the profession at a time when the outlook for us was black, indeed.

We must also give credit to that band of veterinarians who pioneered and made such a brilliant success of the veterinary clubs in the dairying districts of the North Island of New Zealand. There may be divergent opinions within the profession whether the veterinary club of the New Zealand pattern is equally suited to Australian conditions, but even the most trenchant critic of the system cannot deny that the New Zealanders have done a great deal to enhance the prestige of the profession and to show how valuable its services to the community can be.

Animal husbandry work provides a new and important role for the veterinarian. It is surprising that in a country so dependant upon its animal industries as Australia so little attention has been given to the development of training facilities in modern animal husbandry and, in fact, to the use of scientific advances in animal management. But the times are changing; now that the limits of settlement have been reached further development must take the form of intensification. Such intensification will require an up-to-date knowledge of animal husbandry principles. Economic nutrition, for example, holds out great possibilities in this country of uncertain rainfall. Advances in genetic knowledge throw doubt upon established systems and point the way to more effective methods of livestock improvement. Animal husbandry is no longer based upon tradition, mysticism and intuition. It draws its strength from numerous scientific investigations. It, too, is growing up.

The Veterinary School is alert to the needs of the times. Behind the purchase of the farm and the frequent re-shufflings of the curriculum has been the aim to fit the veterinarian for his growing responsibilities.

What we as veterinarians make of the future that holds so much promise is our individual responsibility. The men who brought the profession to its present status who shaped that future have been men with an ideal of service to the community. That must continue to be the profession’s ideal if it is to realise its opportunity.
CHEAPER MILK FOR SYDNEY

Sydney milk suppliers are milking the wrong animal. Sows could produce milk far cheaper than cows. This is not a frivolous suggestion. It arises from the relative cheapness of concentrates and the high cost of roughage in the milk zone.

Nature designed the pig to live on an all-concentrate diet. The digestive system of the cow demands a diet containing a proportion of roughage, the cost of which has reached fantastic levels during the past four years.

Let the doubters consider these figures. Carlyle (1) reports that the milk production of sows in Oklahoma ranged from 4.9 lb. to 10.3 lb. a day. Let's be quite fair—we'll take the average, namely, 7.6 lb. or three-quarters of a gallon. Sows in milk normally receive 8 lb. to 12 lb. of concentrates a day. We'll split the difference, say, 10 lb. a day. The present cost of a suitable concentrate mixture is 0.9 pence a lb. This makes the cost of feed per gallon of sow's milk equal to a shilling.

A cow giving two gallons a day—a fair day's work for the fair cow—requires 11 lb. of starch equivalent, six of them in the form of hay and five as concentrates. At present "white" market prices, hay costs 3½d. per lb. starch equivalent. On the "black" it runs up to 5d. The average price, therefore, is 4½d. a lb. S.E. That 6 lb. of starch equivalent will cost 25½d.

Concentrates should be obtainable at not much more than 1d. a lb. S.E., which makes the cow's concentrate bill 5d. a day. Total cost of the two gallon cow's ration is 30½d. or 15½d. a gallon. The pig wins by a clear 3¼d. a gallon. The savings don't end there. Pig's milk averages 6.7 per cent. fat. Cow's milk delivered in Sydney is supposed to contain 3.2 per cent. fat. In other constituents also pig's milk excels that of the cow. It is no exaggeration to claim that one drop of pig's milk equals in nutritive value two drops from a cow. If we make allowance for this two-fold superiority the relative costs of equal quantities of nutriment from the sow and cow are 6d. and 15½d. respectively.

Pig's milk is likely to be more readily digested by infants. Woll (2) states that the fat globules in sow's milk are only one-fourth as large as those of cow's milk, but eight times as numerous!

The change-over from the cow to the pig as Sydney's milk producer which the above figures show to be inevitable, will involve a few initial difficulties. Some of the more timid souls fear that the milking machine makers will be in trouble, but this objection can be quickly dismissed. A milking machine has been made for white mice. By comparison the construction of a machine for sows should be a simple business.

2. Woll, Wisconsin Rept., 1897.

—H.J.G.
The Transformation of a well known New England Property by Enlightened Management Allied with Scientific Methods of Agriculture and Disease Control.

(The following, prepared by Mr. G. J. O’Neill, Inspector Stock, Armidale, and Mr. E. R. Tuohy, B.V.Sc., from the data supplied by Col. H. F. White, of Bald Blair, outlines briefly the improvements made on Bald Blair by the enterprise of the White family over a period of forty years).

Bald Blair is situated eight miles east of Guyra and bounded south by Black Mountain, north by the Mitchell River and Backwater, east by Wangwibinda, and west by the Northern Railway Line.

In 1902, it was purchased by J. C. White against the wishes of his brother and co-partner, F. J. White, the father of the present owner.

At that time, Bald Blair was very heavily timbered, predominantly with Peppermint, White Gum and "Sally" on the basalt and trap country, and Stringybark on the granite areas to the east. Native grasses consisted of Kangaroo, Wild Sorghum and Tussocky Pod, with minor grasses of sheep type. The climate was very wet; the swamps and the extensive wet, low lying eastern slopes were covered with sedges and foxtail, and were totally unsuitable for sheep raising, a fact well exemplified by the disasters of many previous small settlers, whose losses from worms, fluke, foot-rot and malnutrition were particularly severe.

In 1923, their hand forced by the cattle market slump, the White brothers commenced to graze sheep on Bald Blair. Realising at the outset that some organised system of attack was essential if the venture was to be a success, a plan of action was decided upon with respect to the following:

Timber Control: The effect of systematic ring barking and timber control was to let in the sunlight, the drying of the ground, and the sweetening of the pasture growth.

Fencing: This was a major work, the whole area being sub-divided and netted.

Choice of Sheep and Rate of Stocking: The first sheep introduced amongst the cattle (the latter being reduced in number) were all western bred young wethers. These were stocked at the rate of 900 sheep to 1,000 acres for winter shearing, whilst early shorn young wethers were bought in the early Spring (October). During the Summer, stocking was increased 25-50%, according to prevailing conditions. In addition, cattle were run at the rate of a beast to 8-10 acres. About February-March, stocking was reduced to normal Winter carrying capacity. Under this system of controlled stocking and the free use of cattle as grass eaters, very real progress in pasture management became apparent: the red grasses were depressed (thus eliminating the necessity for the "Spring burn"), Tussocky Pod was controlled, and the Danthonias appeared to spread.

Fluke and Black Disease: During the first five years the
fleshed appearance. Certainly, many racehorses show it and still win, but it looked like a dietary deficiency to me. So I put her on a scientifically complete and balanced ration, and gave her free access to pasture that would supply all the vitamins that science hasn’t yet discovered.

I was pretty busy right then but the Oval caretaker, Tom Ludwig, looked after her, while Joe Berriman gave her exercise. Her training track was St. John’s Oval because at the standard tracks they like you to use a saddle rather than a sack tied on with string, and also they like to collect training fees. However, Tom and Joe kept her improving and eventually the great day arrived when the field was so weak that even Western Lady’s nomination was accepted.

I can’t describe the race to you because, when the dust cleared, the Lady and I were so far behind that I wasn’t sure which way they went. We finished thirteenth—there were thirteen starters—which was a bad sign whichever way you take it. I was bitterly disappointed, but on July 24 we lined up again. This time the Lady jumped away well and shot to an early lead. I let her bowl along until I couldn’t hear the field behind me, then eased her up to win in a jog by three lengths. I tackled a good field with her next start and she was narrowly beaten after being left. I invested my remaining few shillings on her at the September meeting and, although again left at the peg, she raced round the field and won easily by six lengths. She was re-handicapped for the October meeting, but again carried the bank roll to a brilliant victory. She looked a good thing for the big Flying Mile in November, but the night before the race a certain citizen, now in clink, smashed the locks off the boxes of the Lady and a stallion, and let them into the yard together. She was in no condition to race the next day and, as she was later proved in foal, her racing days were finished.

Her place was taken by eight-year-old Bob Black who had reached senility without even running a place. Some of you saw him at the University, on the Newsreels, or at the “Park.” He won three races in the first six weeks, and has had other victories since—a really outstanding performer! He was handled by leading driver Frank Culbert.

Western Lady overcame the handicap of my unorthodox training because of her excellent physical condition attained with the co-operation of the staff of this Faculty. Parasitology played a big part in the success of Bob Black, the Lady, and a number of others who improved markedly after scientific diagnosis and treatment. Though lectures and text-books were of most value in avoiding the pitfalls of inexperience, I feel that even the best trainer could profit from the knowledge each one of you will have when you graduate—not merely in disease treatment, but also in the fitting of the animal for the greatest of all contests—the horse race.
ENTEROTOXAEMIA . . . ITS CAUSE, COURSE & CONTROL

(With apologies to the Bacteriologists . . . past, present and future).

Enterotoxaemia (alias “Pulpy Kidney”) is a wicked disease of sheep caused by the absorption of the toxin of Clostridium welchii type D from the bowel. Clostridium welchii type D is a strict anaerobic, rod-shaped organism with parallel sides and which forms oval subterminal spores. It can readily be distinguished from Cl. oedematiens, Cl. chauvoei, and Cl. septicum. (other members of the “gas gangrene” group) which are strict anaerobic, rod-shaped organisms with parallel sides, and which form oval subterminal spores. Care must be taken in differentiating it from Cl. welchii types A, B & C which are the same only different. The organism probably lives in the soil, although its actual habitat is unknown.

Being a widespread disease, numerous penetrating observations have been made, and the following predisposing factors are considered important:

1. **Type of Feed.** (a) An abundance of green feed.
   (b) A scarcity of green feed but where the supplementary feeds is nuts.

2. **Slight Traumatic Injury to Gastro-intestinal Tract.** Normally such irritation leads to increased motility of the tract and diarrhoea.

3. **Bowel Stasis.** A condition which quickly leads to constipation.

Enterotoxaemia is a disease of sheep, but is peculiar in that it affects only young or old sheep. The following groups are considered to be the most susceptible:

1. Lambs under four weeks, especially in New Zealand.
2. Lambs under 10 weeks, especially in N.S.W.
3. Adult animals, especially those in fat condition.
4. Adult animals in poor condition.

The course of the disease is short, and death usually occurs rapidly and quietly. However, death in convulsions with violent galloping movements, champing of teeth, twitching muscles, rolling eyes, excessive salivation and opisthotonus quite commonly occur. Quiet and violent deaths are the only types recorded, and, as far as is known, no animal has died both ways.

The post-mortem picture is quite characteristic. Summarised they are:

1. No lesions occur in the alimentary tract. The importance of this observation lies in the fact that it enables the disease to be readily differentiated from diseases in which lesions of the tract do occur.

2. Straw coloured fluid in the pericardial sac, and haemorrhages beneath the endo—and epicardium are constant features. This is important since it allows the disease to be readily confused with Black Disease and other toxaeamias.

3. Pulpy Kidney in lambs. The kidneys must not be confused with jelly, because this is not naturally found in this site in sheep.
Control of the Disease in Australia.
This is based on our knowledge of its aetiology, and of its predisposing factors, and of the animals which are the most susceptible to it. The following lines of attack are now being adopted:

1. Elimination of Predisposing Causes by Controlled Feeding.
   (a) By not allowing sheep access to lush greenstuffs. This can be prevented by either muzzling, or running the sheep on concrete paddocks. The latter method is the more suitable as it (i) Disposes of the main source of infection, viz., the soil. (ii) Has the added advantage of helping to control parasitic infestations.
   (b) By not feeding nuts, when there is greenstuff which should not be fed, anyway. (See (a)).
   (c) By not feeding. This practice has the all important result of increasing the pastoralist's revenue . . . he can then lease his pastures to some individual unenlightened in the control of enterotoxaemia.

If these three procedures are rigourously carried out these quick, important results are obtained.
I. Fat sheep cease to exist.
II. Poor sheep (the least susceptible group) increase temporarily in numbers.

2. Cessation of Breeding.
   Purposes achieved by this are:
   (a) There is no annual increase in the numbers of very susceptible animals, i.e., the lambs.
   (b) The rams and ewes can be sold to offset the cost of concreting the paddocks.

Summarised, the sum total of these two methods of control is:
A. Immediate reduction in the total number of susceptible sheep, with a corresponding decrease in Enterotoxaemia.
B. A subsequent reduction in the total number of sheep, with a further decrease in the incidence of the disease.
C. Annihilation of the sheep, and a final complete reduction in the disease. Such measures of control are guaranteed to eradicate the disease on any property in the Commonwealth or elsewhere.

"SUNBEAM."

THE "GENETICISTS MANIFESTO"

The Seventh International Congress of Genetics adjourned at Edinburgh only three days before World War II. got under way. It is interesting to recall that just before the shooting started a group of geneticists at that Congress-informally formulated what we might call an Edinburgh Charter of the genetic rights of man. (At the time it was called by some who signed it the "Geneticists Manifesto.") Now that we are setting forth on a sea of words toward the New Horizon and the Four Freedoms it may not be amiss to recall this statement of fundamentals, drawn up and subscribed to at a very solemn time, by some of the leaders of genetic thought—

The "Manifesto"

The question "how could the world's population be improved most effectively genetically" raises far broader problems than the purely
biological ones, problems which the biologist unavoidably encounters as soon as he tries to get the principles of his own special field put into practice. For the effective genetic improvement of mankind is dependent upon major changes in social conditions, and correlative changes in human attitudes. In the first place there can be no valid basis for estimating and comparing the intrinsic worth of different individuals without economic and social conditions which provide approximately equal opportunities for all members of society instead of stratifying them from birth into classes with widely different privileges.

The second major hindrance to genetic improvement lies in the economic and political conditions which foster antagonism between different peoples, nations and "races." The removal of race prejudices and of the unscientific doctrine that good or bad genes are the monopoly of particular peoples or of persons with features of a given kind will not be possible, however, before the conditions which make for war and economic exploitation have been eliminated. This requires some effective sort of federation of the whole world, based on the common interests of all its peoples.

Thirdly, it cannot be expected that the raising of children will be influenced actively by considerations of the worth of future generations unless parents in general have a very considerable economic security and unless they are extended such adequate economic, medical, educational and other aids in the bearing and rearing of each additional child that the having of more children does not overburden either of them. As the woman is more especially affected by child bearing and rearing she must be given special protection to ensure that her reproductive duties do not interfere too greatly with her opportunities to participate in the life and work of the community at large. These objects cannot be achieved unless there is an organisation of production primarily for the benefit of consumer and worker, unless the conditions of employment are adapted to the needs of parents and especially of mothers, and unless dwellings, towns and community services generally are reshaped with the good of children as one of their main objectives.

A fourth prerequisite for effective genetic improvement is the legalisation, the universal dissemination, and the further development through scientific investigation, of ever more efficacious means of birth control, both negative and positive, that can be put into effect at all stages of the reproductive process—as by voluntary temporary or permanent sterilisation, contraception, abortion (as a third line of defence), control of fertility and of the sexual cycle, artificial insemination, etc. Along with all this the development of social consciousness and responsibility in regard to the production of children is required, and this cannot be expected to be operative unless the above mentioned economic and social conditions for its fulfilment are present and unless the superstitious attitude towards sex and reproduction now prevalent has been replaced by a scientific and social attitude. This will result in its being regarded as an honour and a privilege, if not a duty, for a mother, married or unmarried, or for a couple, to have the best children possible, both in respect of their upbringing and of their genetic endowment, even where the latter would mean an artificial—though always voluntary—control over the processes of parentage.

Before people in general, or the State which is supposed to represent them, can be relied upon to adopt rational policies for the guidance of their reproduction, there will have to be, fifthly, a wider spread of knowledge of biological principles and of recognition of the truth that both environment and heredity constitute dominating and inescapable complementary factors in human well-being, but factors both of which are under the potential control of man and admit of unlimited but inter-dependent progress. Betterment of environmental conditions enhances the opportunities for genetic betterment in the ways above indicated. But it must also be understood that the effect of the bettered environment is not a direct one on the germ cells and that the Lamarckian doctrine is fallacious, according to which the children of parents who have had better opportunities for physical and mental development inherit these improvements, biologically, and
according to which in consequence, the dominant classes and peoples
would have become genetically superior to the unprivileged ones. The
intrinsic (genetic) characteristics of any generation can be better than
those of the preceding generation only as a result of some kind of
selection, i.e., by those persons of the preceding generation who had a
better genetic equipment having produced more offspring, on the
whole, than the rest, either through conscious choice, or as an auto­
matic result of the way in which they lived. Under modern civilised
conditions such selection is far less likely to be automatic than under
primitive conditions, hence some kind of conscious guidance of selection
is called for. To make this possible, however, the population must first
appreciate the force of the above principles, and the social value which
a wisely guided selection would have.

Sixthly, conscious selection requires, in addition, an agreed direc­
tion or directions for selection to take, and these directions cannot be
social ones, that is, for the good of mankind at large, unless social
motives predominate in society. This in turn implies its socialised
organisation. The most important genetic objectives, from a social
point of view, are the improvement of those genetic characteristics
which make (a) for health, (b) for the complex called intelligence
and (c) for those temperamental qualities which favour fellow-feeling
and social behaviour rather than those (to-day most esteemed by
many) which make for personal "success," as success is usually under­
stood at present.

A more widespread understanding of biological principles will
bring with it the realisation that much more than the prevention of
genetic deterioration is to be sought for and that the raising of the
level of the average of the population nearly to that of the highest
now existing in isolated individuals, in regard to physical well-being,
intelligence and temperamental qualities, is an achievement that
would—so far as purely genetic considerations are concerned—be
physically possible within a comparatively small number of generations.
Thus everyone might look upon "genius," combined of course with
stability, as his birthright. And, as the course of evolution shows, this
would represent no final stage at all, but only an earnest of still
further progress in the future.

The effectiveness of such progress, however, would demand in­
creasingly intensive and intensive research in human genetics and in
the numerous fields of investigations correlated therewith. This would
involve the co-operation of specialists in various branches of medicine,
psychology, chemistry and, not the least, the social sciences, with the
improvement of the inner constitution of man himself as their central
theme. The organisation of the human body is marvellously intricate
and the study of its genetics is beset with special difficulties which
require the prosecution of research in this field to be on a much vaster
scale, as well as more exact and analytical, than hitherto contemplated.
This can, however, come about when men's minds are turned from war
and hate and the struggle for the elementary means of subsistence to
larger aims, pursued in common.

The day when economic reconstruction will reach the stage where
such human forces will be released is not yet, but it is the task of this
generation to prepare for it, and all steps along the way will represent
a gain, not only for the possibilities of the ultimate genetic improve­
ment of man, to a degree seldom dreamed of hitherto, but at the same
time, more directly, for human mastery over those more immediate
evils which are so threatening our modern civilisation.

(original signers)

J. B. S. Haldane.  H. J. Muller.
L. T. Hogben.
IF YOU WANT TO BE A VET.
Adapted by J. T. Fearn.

Few occupations demand such a diversity of qualifications as the practice of Veterinary Science.

First one must spend five years of his life in the University before he can legally qualify. He must be athletic enough to match wits and muscle with all types of livestock, be as nimble as a matador and as careful as a dynamite handler.

Amongst other things he must have stamina enough to go 48 hours without sleep, if need be, and to possess a digestive tract that will handle "catch-as-catch-can" meals and all types of country "vittles."

Unlike the medico who deals only with genus homo, the veterinarian must have a working knowledge of the husbandry breeding peculiarities, appetite, susceptibilities, requirements and characteristics of horses, mules, hinnies, jennies, jacks, cattle, sheep, pigs, goats, dogs, cats, turkeys, ducks, geese and fowls, plus a speaking acquaintance with the habits of fur-bearing and zoo animals, canaries, parrakeets, and all other creatures with fur or feathers.

The vet's day to day activity requires a thorough conception of surgery, obstetrics, materia medica, pharmacy and such light subjects as immunology, hygiene, pathology, bacteriology, mycology, toxicology, botany, endocrinology, anatomy and physiology, biochemistry, parasitology, haematology, chemistry (both organic and inorganic), nutrition and vitaminology, testology, genetics and jurisprudence.

His "jack of all trades" knowledge must include architecture of farm buildings, construction of stables and silos, contour banking and irrigation with some idea of surveying, and a thorough conception of the inner workings and external structure of the automobile.

Outside of working hours he must be a good business man, a practical psychologist, a keen analyst of credit expansion, his own purchasing agent, book-keeper and general manager. In numberless communities he is also called upon to serve as mayor, alderman, county commissioner, or chairman of the school board.

Granting that he lives to be 70—provided he avoids being kicked by a horse, tramped by a mule, gored by a bull, horned by a cow, bitten by a rabid dog, weather exposure to undulant
fever, anthrax, erysipeloid, streptococci and a few dozen other hazards—he can settle down to a few years at Palm Beach or St. Kilda if he will live frugally and avoid financial pitfalls provided for the aged and unwary.

A WORD ABOUT FIJI

Most Australians have a pretty vague idea about the Fiji Islands, and are rather surprised when told that the group consists of 250 islands, about 80 of which are inhabited. The main island, Viti Levu, is about 80 miles by 50 miles, while some of the smaller ones are only a couple of acres. The population is made up of about 98,000 Fijian natives, 84,000 Indians, 5,000 Europeans, 5,000 half-castes and 5,000 miscellaneous. The main industry is sugar and in addition there is quite a large fruit export trade and, prior to the war, a growing gold mining industry. Copra is now only of minor importance. Dairying is on a fairly large scale, and although there is not an export surplus, there were, prior to the war, ample dairy products for local consumption.

Students will probably be more interested in the Veterinary and Livestock aspects. Fiji is the only British Colony which will accept the Australian Veterinary Degree, and graduates of this school who have seen service in the Colony as Government Veterinary Officers are: Messrs. C. R. Gurbett, B.V.Sc., M.R.C.V.S., W. G. Bennett, B.V.Sc., H. M. Stutchberry, B.V.Sc., H. T. B. Hall, B.V.Sc., and R. N. Sanders, B.V.Sc.

The Veterinary Division maintains two clinics which between them treated or examined 833 cases in 1942 and 1,245 cases in 1943. There are no private practitioners in Fiji, so that all animal disease and injury treatment devolves on the Government Veterinary Staff, who are not allowed private practice. In addition, Veterinary Officers administer the Stock Improvement Ordinance, Contagious Diseases (Animals) Ordinance, Animal Importation Ordinance and Brands Ordinance. Furthermore, advice is given in relation to certain aspects of public health, transport of cattle, trespass of cattle, pasture improvement and the instruction of peasant farmers in animal husbandry. Some idea of the work entailed may be gauged from the fact that prior to the war there were only three Veterinary Officers in the Colony and the animal population in a census in 1941 was: Cattle 84,000, horses 16,000, pigs 8,500, goats 27,000, sheep 365, fowls 110,000, ducks 6,500, turkeys 1,000, geese 350, and in addition, cats and dogs, for which no figures are given, provide extensive clinical work.

With the exception of tuberculosis, disease incidence in large animals is low and there are no acute infection diseases in animals of this class. The chief cattle diseases are tuberculosis, contagious abortion and nutritional and parasitic diseases. In horses, goats and sheep nutritional diseases and
MAP BY COURTESY OF H. E. C. ROBINSON PTY. LTD., GEORGE ST., SYDNEY.

THIS MAP IS A COPYRIGHT OF MESSRS. ROBINSON'S.
parasitism are the main ailments. Filariasis is probably the most serious and widespread infection in dogs. An outbreak of Dis-temper appears to have been caused by a dog smuggled in by 'plane by military personnel. Poultry suffer from nutritional causes, parasitism and most of the common acute infectious diseases, but control measures against Pullorum Disease, which was introduced in imported birds several years ago, appear to have been successful in eradicating the disease.

Disease control is one of the most important functions of the Veterinary Staff, and it is worthy of mention that in the dairy herds supplying Suva, the capital, the annual application of the tuberculin test resulted in a reduction of tuberculous infection of 18% in 1931 to less than 2% in 1935, and since then there have been further slight improvements. In 1942 6,000 tuberculin tests were carried out on cattle of all districts and in 1943 4,506 were tested at which 237 or 5.6% gave positive reactions. In addition, 256 manifest cases of tuberculosis were discovered and destroyed. Contagious abortion now appears to be well under control, following the use of the agglutination test and vaccination of the calves. Other diseases met with in 1943, were several cases of gangrenous mastitis, cancer and actinomycosis.

Under the Stock Improvement Ordinance, 185 bulls were registered in 1943 and 402 castrations ordered. Nineteen stallions were registered and 186 castrations ordered. This policy, along with the importation of stock which is under control of the Animal Importation Ordinance has done much to increase the standard of the animals in the Colony, although further importations and improvements in animal husbandry are necessary. The Department maintains several farms for the production of breeding stock and instruction in management of cattle, pigs and poultry, and it is hoped that this will also increase productivity.

Finally, a word on dairying. Probably no country in the world requires the expenditure of less human energy, particularly as regards housing and feeding, than is required in the dairying industry in Fiji. The result has been the acceptance of low standards of production which, however, with low labour costs and cheap land, have shown satisfactory profits in the past. Some idea of the level of production can be gauged from the fact that of 556 cows tested in 1930, only 30 produced more than 50lbs. of fat in 30 days, while only 116 gave more than 30 lbs. of fat in that period. Now, however, labour costs are rapidly rising as also land values and the importance of improved management and nutrition with improved breeding and culling of poor producers takes on an added significance.

—K. J. GARNETT.
Interim Report of the Secretary.

With the cessation of hostilities in Europe and the resumption of the normal academic year we hope that this year will see the turning point in the welfare of the Society and a return to normal activities.

Although the Japanese War has not yet ended, we feel that now is the time for the Society to awaken from its war-time slumber and assume once more its rightful place in student activities.

We welcome back those members of the Faculty returning from the services and hope that their enthusiasm and energy of former years together with our present young blood will manifest itself once more in a revival of the "Old Faculty Spirit."

The activities of the Society so far have been:

- Freshers' Welcome: An informal dance was held in Federation Hall at 8 p.m. on May 7th to welcome our freshers. This was attended by members of the Staff, freshers, and society members. It was a great success—socially. Due to the energetic efforts of the Dance Committee, especially its lady members, it was more of a financial success than of former years.

- Dinner: A dinner will be held early in Trinity term as a farewell to Final Year.

- Dance: The annual dance will be held in the latter part of Trinity term.

- Meetings: In addition to the Annual General Meeting, there have been three Ordinary General Meetings and one Special General Meeting of the members of the Society.

† Addresses delivered at the Ordinary General Meetings were:

to us the methods in use by the Australian Army for Malarial Control. Major Johnson's comments on D.D.T. were very interesting and all in all the address was amongst the most interesting we have heard.

April 20th: Professor J. D. Stewart, "Milestone in the Veterinary Profession." Having been so intimately concerned with the development of the Profession in N.S.W., Professor Stewart is admirably equipped for such a subject, and his address was well up to the standard of his addresses of former years.

May 4th: Mr. D. C. Blood, B.V.Sc., "The Veterinary Profession in New Zealand." Mr. Blood has recently returned from a sojourn in New Zealand and gave us a most interesting address—putting the position of the Profession in New Zealand to us in a very concise manner.

It is the hope of the Executive Committee that we shall be able to arrange fortnightly addresses during the coming two terms.

R. W. HEWETSON, Hon. Sec.

**FIFTH YEAR, 1945.**

We have been in residence at the University Farm for the past two terms. We wish to thank Mr. Geddes, Mr. Steel and all members of the Farm Staff for their help in making our stay a profitable and enjoyable one. Particularly would we thank Mr. Steel for his efforts in establishing a library of not incon siderable value during our sojourn at the Farm.

As is usual, each of our number is listed below:

S.B.: Pull your head in, Bluebeard!

J.B.B.: Just bear and belles.

J.C.: The gentle voice of Spring comes wafting on the breeze.

Hark! But 'tis Foggy outside.

W.E.C.: "So, we'll live,

And pray, and sing, and tell old tales and laugh."

J.C.: The old grey mare ain’t what she used to be.

E.M.B.: He must have some vices, surely.

C.D.: I've had it.

J.E.: The man who nearly guffoofled a "sap" into a mallee hen.

J.T.F.: South Australian element, smooth and pliable, alloys well with heavier metals.

K.J.G.: Did he swallow a coconut? Maybe he's the answer to a maiden's prayer.

L.H.L.: Dip.Oxom.(Hons.)

E.J.McM.: Did he blunder into a mare's nest? Or how was it?


J.W.O.: "Deeper than did ever plummet sound."

J.E.P.: Dark horse for the 5 past 5 Turramurra Stakes.

P.M.S.: Convince me how you will. I’m of the same opinion still, but Bawwy can do it.

E.R.T.: Now listen 'ere echinococcus, no women by special request.

D.H.T.: "This fellow picks up wit as pigeons peas,

And utters it again when God doth please."
FINAL YEAR, 1945.

Front: W. Crogan, Dr. Carne, Dr. Gunn, C. Irvine, K. Garnett.
Back: S. Bennet, D. Thompson, J. Bentley, E. McMahon, J. Peterson.
FOURTH YEAR, 1945

This year we have been in the rather rare but fortunate position of starting the year with not fewer but more members than our year contained last year . . . our new additions have been ex-servicemen who have considerably brightened things up for us . . . it is as though we have received a transfusion of new, better and brighter blood. Already our new members have taken a very noticeable part in student activities. "Pete" Royle as rep., "Sunbeam" as basketball, hurling and hop-step-and-jumping exponent, Brian Rushford as yet another basketball stalwart, and all important two erstwhile Siamese twin racers, none other than "Basher" and Dave Dodd. Of our original members, Rex Hartwell is President S.U.V.S., Bill Thompson, Joe Berriman, Sports Clubmen, and we have active and competent representation on just about every committee that thrives inside the portals of the Vet. School.

We wish to take this opportunity to publically refute any claims that attempts were made, at any stage of the game, to drown a show pony by one of the gamblers who had access to said animal. It is also denied that any metaphysical umbilical cord is or was at any time in existence . . . similarly the presence of any piano wire apparatus is to be regarded as a gross distortion of the facts of the case.

In our midst we have the makings of a potential choral society. On many an otherwise dreary morning have our souls been uplifted with the strains (and they really are) of some, if not all, of the present-day soap box operas. These little excursions have served well to off-set the apparently homicidal tendencies exhibited by some of our number immediately post-breakfast. Talking of homicidal tendencies, it is well to record the presence of our puglistic aspirants, the exact position is somewhat obscure but off-the-record 'tis said there is feverish activity in the way of training and bettering of slaughtering technique. Among us we have one who has developed a unique and very effective method for the slaughtering of pigs . . . we believe this is to be outlined in the A.V.J. at a future date . . . after trial at Homebush. The originator of this scheme is said to believe that both brains and brawn are involved in this method.

To Mr. Banks we extend our heartiest congratulations on his recent appointment to the role of father and shortly after Lecturer in Bacteriology. To those in the services we bid you a speedy and safe return, and offer as an added inducement, the company of our fairies. Our best wishes to Final Year and may we all soon be in your enviable boots. Finally, to Dr. Carne, as originator of and chief dispensor at, the staff and student gathering at the end of Lent term, we extend our congratulations on a movement well made.

34
THIRD YEAR NOTES

"Whence is thy learning? Hath thy toil
O'er books consumed the midnight oil."

"Gay."

The old boy wouldn't have doubted the reply to such a fool question, if there had been a Vet. School in his day.

With five years to absorb, imbibe or otherwise gain knowledge the cry is yet, "Faster," and the end result is expressed in a myriad of fascinating reactions. Entrants in the walking race in the Inter-Faculty sports are trained by expending their every effort on the down journey from the old Med. School (you can't get them out of a snail's mile rate on the way up). While time for meals is profitably utilised by dissecting out and identifying bits of the Sunday joint while the rest of the household pitingly shake their heads.

Even with this increased metabolic rate—our galaxy of intelligentsia looks sound, though some have the tendency to develop whistling (the long, low kind, and it doesn't have its cause in a flaccid vocal cord), but none have degenerated to the stage where it can truthfully be said

"Much study hath made him very lean,
And pale and leaden eyed."

—T. Hood ("Eugene Aram.")

though the Freshers' Welcome went close to bringing on just those symptoms.

Achievements and distinguishing features of the members of this clan are such as to make the most lucid narrator shy off —so that many things will not be told that should have been and probably a few will be told that ought not to have been.

With the affairs of our days so much with us and the first goal achieved in the world struggle, it is with sincere pleasure we welcome back from the services Bruce Frecker, Alec Baldry, A. C. Thompson, Bill Wilkie, Dick Hewetson and Lindsay Stevens, who have brought experience and maturity to us, and whose work in the Society is now becoming apparent. We, as other members of the year, wish them all the best, and that they may successfully arrive at their goal, the pursuit of which was ruthlessly interrupted by war.

And then in 1944 came a veritable invasion from across the Tasman, and although inter-marriage between the two races has not yet occurred (officially), one or two land ladies are reputed to be doing their best, and the hybrids, if produced, may prove a useful acquisition to the football world here, and in convincing Aussies of the intoxicating action of a Haka on all occasions demanding bold action.

There were days at Hawkesbury College when all the world seemed made up of oranges—despite the Great Dane—and the College were downed at football. Students who turned on the Houdini act (unsuccessfully) upon a raft in the Hawkesbury River, and chariot races—equal to anything put on by Ben Hur and Robinson Crusoe.
Visits to the abattoir, so frequent and yet so intimately aromatic that when the community out there decides to increase its leisure, we feel almost compelled to do likewise, for we developed that fraternity which says:

"We be of one blood, brother, thou and I."

A fact which is irresistibly borne out in the dissection room by the crushingly callous destruction often wrought on a precious nerve—those they call "Butch's" and those who accidently failed to cut it they call 'em "whips."

Lecturers who accidentally bid on yearlings to the tune of 900 gns., and those who are desolated when they find the Kangaroo Dog still has a fondness for apple cores, despite his two score years and ten. And the school teacher who doesn't get an apple from her children, but has to chew on bones for most of the year, yet loved nevertheless.

In the affairs of the student body as a whole the majority of the executive positions are filled from this year, and of that we are somewhat proud.

To our lecturers we extend our good wishes and deepest thanks, to Mr. Whitehouse our congratulations on his splendid recovery from a severe illness and to all those who have contributed to a valuable and enjoyable course, sincere gratitude.

With such a brief and sketchy account, dear reader, you may be dissatisfied. Best assured there occurred many more things of which you may like to know. Seek us out, some will be told you, but some may have become carefully submerged to provide fodder for the gossips in the great hereafter.

**FIRST YEAR NOTES**

Despite the large number of students, the election of Year Representative caused no controversy. Jim Barnes was voted for unanimously and has not given his electors any cause for regrets for the trust they put in him. Perhaps this year we have the greatest number of students ever to commence Veterinary Science at Sydney University, there being 60 in all. Amongst these we have nine ex-servicemen.

Owing to certain difficulties, we shall not go to the Animal Husbandry Farm at Badgery's Creek this vacation. This sad fact is much regretted by the present freshers, who having heard of the experiences of last year's freshers, were eager to once more try out the patience of those in charge.

The main function of the term was the Veterinary Science Freshers' Dance, held on 7th May, at Federation House, and although it was not greatly represented by freshers, was very much enjoyed by those who did attend. The quiz held at the Freshers' Dance was won by Jim Barnes and Bruce Mitchell, who were rewarded with a bottle of beer.

Our Year Representative is in the limelight again, this time for coming second to Medicine in the "Swoonatra Competition." First Year displayed the well known Faculty Spirit by greatly assisting Jim in his efforts. To support this competition,
which was in aid of the Red Cross, a theatre party was held on Tuesday night, the 15th May.

The freshers certainly are keen this year—take young Clem Gee for instance—he was so intent on studying horse’s gait one Sunday at Fuller’s Bridge, that he failed to recognise or even notice Nita, the year’s No. 1 glamour girl, upon it.

Although we have quantity we still have plenty of quality. Our football team has several outstanding players, but a little team-work would go a long way. One football match has been played, which was against Ag.-Science, who beat us 12 to 3.

Arthur Eedy, a very good athlete, came second in the mile and half mile at the sports. On the committees we have Jack Crawford for golf, Kevin Tucky for tennis, Leigh Whatmore for baseball, and Bruce Mitchell, Greg McGrath and Arthur Eedy on the Football Committee.

In conclusion, may I, on behalf of first year, extend the best wishes for success to fifth year students in their final year.

ENLISTMENTS

The following list of those of our number who have served in the Forces is not complete, and may contain inaccuracies. We are trying to compile a record of all students and graduates who have served in this war and ask your help in its completion by making any corrections and additions you can. Miss Black or Dick Heweston (3rd Year) will be grateful to receive any further information.

HONOUR ROLL

Dampier-Crossley, E., F/Lt., D.F.C.—Missing. Believed killed whilst on service with the R.A.A.F.
Gibson, P. L., Wing Cdr.—Accidentally killed in New Guinea.
Prior, T. H., Capt., A.A.V.C.—Died in camp in Australia.
Walker, B. M. J., Cpl., A.I.F.—Accidentally killed in Palestine in 1940.

OTHER SERVICE PERSONNEL

Adamson, C. R.—1st A.A. Regt.
Anderson, J. P., Cpl.—After service in the Middle East with the 2/6 Light A.A. Regt., and with the 2/3 Mb. Bact. Laboratory with Major T. S. Gregory, is now in 3rd Year Vet.Sc. (1945).
Barnes, J. E., Pte.—2/2 Commando Sq. Service in New Guinea.
Baldry, A. A. M., Lt.—Served with the 56 Composite A.A. Regt. in Torres Strait, and adjacent areas. Now 3rd Year Vet.Sc. (1945).
Bannister, L., Pte.—2/17 Bn. Taken prisoner in Greece. Has recently been released from a P.O.W. Camp in Germany.
Bazeley, I. L., Major, O.B.E.—Armoured Division. Served for duty in connection with production of penicillin by the Commonwealth.

Blood, D. C.—After service with the Northern Territory Force, was granted a Captaincy in the A.A.V.C. Is now lecturing in Veterinary Medicine at the Veterinary School, University of Sydney.


Brett, J. E.—Enlisted at the end of 1st Year Vet.Sc., 1941.

Byrne, K. V., Capt.—A.A.V.C., A.M.F.

Barker, John, Capt.—A.A.V.C. Now returned to his property near Albury.

Brook-Taylor, F/Lt., D.F.C.—R.N.Z.A.F. Won the D.F.C. while serving with Coastal Command over the North Sea.

Cairney, L., Capt.—New Zealand Army Medical Corps. Saw service in Solomons. Until recently 2nd Div., 2 N.Z.E.F., in Italy.


Chappel, R., Pte.—A.I.F. Recently discharged. Practising his profession, Tamworth.


Cole, V., Capt.—A.A.V.C. Released to take up duties as a Wool Extension Officer.


Dawson, V., Sgt.—Recently discharged from Service. Is not returning to the Vet. School.


Doyle, R. J. B., Cpl.—2/1 Infantry, A.I.F. First Year Vet.Sc., 1941.


Fairfax, R., Capt.—A.A.V.C.


Fowler, C. C.—2/1 Field Regt.


Gould, J., F/Lt.—R.A.A.F. Recently completed an operational tour on Vultees in Dutch New Guinea.

Gregory, T. S., Major.—Having enlisted as a Sgt., is now doing research work in Army Hygiene.


Griffiths, C., Sgt.—Enlisted in A.A.V.C. from 3rd Year, 1941. Recently did a Food Technology course at the University.

Gallagher, K.—R.A.A.F. Doing radio-location work.


Gilmour, G.—A.I.F.

Grainger, W., Major.—A.I.F. Now with A.N.G.A.U.


Henry, J. N., Major.—Divisional H.Q. in a Northern Operational Area.

Hoeban, J. H., Capt.—A.A.V.C., A.M.F.


Istler, T.—Served for a short period with A.I.F. Returned to practise his profession in Queensland, and subsequently joined the R.A.A.F.

Jacobs, A., Spr.—With an Engineering Unit in the Solomons. Was previously with the 2/11 Armoured Car Regt.

Johns, D., Capt.—A.A.V.C. Went with a Pack Train to New Guinea.

Johnston, I. R., R.N.Z.A.F.

Jude, F.—R.A.A.F.


Kesterven, K. V. L., Major.—Armoured Division, A.I.F.

Keiton, I. W., Capt.—A.A.V.C., A.M.F.

Lakeman, M. J., Capt.—A.M.F.


Lawrence, W., F/Lt.—Flying Catalinas in the Islands. Recently ferried an aircraft from U.S.A. Resumed 2nd Year studies in Vet.Sc, 1945.


Lesslie, L., S/Lt.—Has seen service in England. Believed to be serving in one of H.M. Submarines at present.

Love, E. N., Sgt.—A.I.F. Reported missing, N.E.I.


McIntosh, K. S., Lt./Col—D.V.S., H.Q., A.M.F.

McKay, D., Tpr.—6th Armoured Regt.

Marshall, W. K., Major.—A.S.C. Forward Operational Area.

Miller, R., Gnr.—Served with 55th A.A. Regt. at Darwin. Returned to 2nd Year studies in Vet.Sc., 1945.


Mills, W., F/Lt., D.F.C.—With an Air-Sea Rescue Squadron in N.E.I. Has been flying Catalinas for three years. Congratulated on winning the U.S. D.F.C., also.

Merewether, P., Lt.—R.A.N.V.R.

Montgomery, W., Major.—A.A.V.C., H.Q., A.M.F.

Mulhearn, C. J.—After Service with Northern Territory Force granted a Captaincy in the A.A.V.C.


Nicholas, W. P., Capt.—2/2 Mg. Bn. On Service in Islands north of Australia.

Nicholls, M. J., Tpr.—7th Div. Cavalry. Has seen Service in Cyprus, Syria and New Guinea. Hopes to return soon from Victoria, where he is now stationed.


Nott, A. R., Capt.—A.A.V.C., A.M.F.

Officer, T., Lieut.—R.A.N.V.R. Second in Command of small ship. Recently saw service off Leyte.

Oxley, R., Pte.—A.A.M.C., A.I.F. Returned to his Vet. Profession.


Pillinger, D., Sgt.—Enlisted from 3rd Year, 1941. A.A.V.C. Recently did a Food Technology Course at Sydney University.

Phipps, W. J. F., Capt.—A.I.F. Prisoner of War in Italy for four years. Now returned to Australia.

Pockley, L. A., Major.—A.A.V.C., A.S.C., Armoured Division is now with H.Q. Unit at a Northern Operational Base.
Pope, C., Capt.—Saw Service in Middle East as Vet. Officer. Returned to Australia and resumed civilian life in Victoria.


Proctor, K., Gnr.—6th Division Artillery, Aitape.

Purcell, R. T., F/O.—Returned to practice in North Sydney.

Pelsley, H. R., Capt.—A.I.F.

Rees, D. J., Lt.—A.I.F., Darwin.

Rogers, J.

Rose, A. L., L/Cpl.—On Service in Islands north of Australia.


Rutherford, D., Spr.—A.E.M.E., A.I.F. Enlisted from 1st Year Vet.Sc., 1941. At present stationed near Brisbane, Q.

Ryan, J., Pte.—2nd N.Z.E.F. Has seen Service with the Artillery in Italy and the Solomons.

Salstrary, R., W/O.—R.A.AP. Wounded off the coast of Scotland. From Queensland Veterinary School, now in 4th Year at Sydney University Vet. School, 1945.

Sawyers, T.—P.O.W. of the Japanese in Malaya.

Scott-Rogers, E., Capt.—A.A.V.C., A.M.F.

Springhall, J., Lt.—A.I.F. Enlisted from 1st Year Vet.Sc., 1941.


Shaw, H. E. B., Capt.—A.A.V.C.


Sundstrom, H. G., Capt.—A.I.F. After nearly five years service has returned to Australia and taken up a grazing property, "Koona-burra," at Ivanhoe, N.S.W.

Sutherland, J. M.—Enlisted in R.A.A.F. At present at a Northern Operational Base.


Tucker, G. F.—A.I.F., 7th Australian Division.


Ward, C. W., L/Cpl.—2/1 Aust. Inf. Bn. Congratulated on winning the M.M. Now in home State, Western Australia.


Whitten, W. K., Capt.—A.A.V.C., A.M.F.


Williams, Capt.—A.A.V.C., A.M.F.


**SERVICEWOMEN**

Donaldson, Leila.—Bdr. Artificer.

Farr, Kathleen.—Captain, A.W.A.S., Queensland.

Lorenz, Mavis.—A.W.A.S. Discharged.

Scott, Jean.—Section Officer, W.A.A.A.F.
MEGGITT LIMITED’S PURE LINSEED OIL MEAL

Its richness in digestible protein corrects deficiencies of this nutrient which occur in most of the common grains and fodders. Its content of medicinal linseed oil acts as a tonic and regulator, keeping stock thrifty and adding bloom and condition. It is equally good for Horses, Cattle, Sheep, Pigs and Poultry.

MEGGITT LIMITED’S PURE LINSEED SHEEP NUTS

Their richness in digestible protein and mildly laxative action make them the ideal supplement to dry fibrous feed, preventing mortalities, strengthening sheep, and enabling ewes with lamb at foot to maintain a satisfactory milk flow.

MEGGITT LIMITED

Head Office:
Asbestos House, York and Barrack Streets - Sydney
Works: Parramatta, Melbourne, Adelaide.

McGARVIE SMITH ANTHRAX VACCINE

The Original Single Vaccine used in Australia for Thirty Years with Splendid Results!

Stock Department Records show that when this vaccine was introduced, inoculations reached nearly Two Millions per annum in New South Wales alone, and that outbreaks are now of only minor occurrence.

McGarvie Smith Vaccine is now known throughout the world. Its quality has always remained constant, and each new batch of vaccine is subjected to rigid field and laboratory tests.

Operators sent anywhere at shortest notice.

Full particulars on application to—

McGARVIE SMITH INSTITUTE
117 PITT STREET, SYDNEY - N.S.W., Australia
'Phone: B 1277.
Veterinary Instruments and Equipment.

Our complete stock is designed to meet the needs of the Veterinary Surgeon. With our Instrument Factory at your disposal, your requirements for special designs can be met without delay. We cordially invite your personal inspection of our Veterinary and Surgical Instrument Department.

Catalogues on Application.

* 

Elliotts & Australian Drug Pty. Ltd.

Showroom ———— 33 BLIGH STREET, SYDNEY

NUTRITION OF LIVESTOCK

Scientific developments in this important subject over the last few years has been great and far-reaching. The implementation of many scientific findings requires the existence of an efficient Stock Feed Manufacturing Industry.

For over 32 years THORPES LTD. have made it their special business to provide prepared feedstuff to meet the specifications that scientific investigation and practical demonstrations have shown to be necessary for the best results with poultry and livestock.

When the restrictions of war and drought are lifted, we look forward to supplying once more a full range of feeding stuffs.

THORPES LTD.

STOCK FEED MANUFACTURERS
313-317 SUSSEX STREET — SYDNEY
VETERINARY JOURNALS

Annual Subscriptions:

- American Journal of Veterinary Research: Q. £1/9/6
- Journal of American Veterinary Medical Association: M. £2/15/6
- Journal of Heredity: M. £1/10/-
- Veterinary Medicine: M. £1/7/6
- Animal Breeding Abstracts: Q. £1/13/6
- Veterinary Journal: M. £1/14/-
- Veterinary Bulletin: M. £2/13/6
- Veterinary Record: W. £4/19/3
- Onderstepoort Veterinary Journal: Q. £1/15/-

We Specialise in Scientific and Technical Periodicals.

Quotations are Gladly Supplied.

The largest and most representative selection of Veterinary books in Australia.

GRAHAME BOOK COMPANY

Prudential Building — Corner Martin Place and Elizabeth Street, Sydney. B 4241.

LAMBS SAVED!

by using the

DAROUX (Bloodless) EMASCULATOR

No Open Wounds, Flies or Infection.

N.Z. Fat Lamb Breeders declare it a winner, and use it universally. One hand holds Cord — other hand closes instrument. 100 per cent. efficient—humane—safe — and as quick as the fastest knife. Lambs suffer no setback — fatten weeks earlier. No risk of infection—no losses. Don't judge this instrument by other machines.

TRY A DAROUX! IN TWO SIZES: SMALL £3/15/-, LARGE £4/10/-

Also DAROUX LAMB DETAILER — Lessens infection from Flies or Germs. Heals Quickly, Reduces Mortality. Saves Loss of Blood by sealing blood vessels and glands. Freezers for the Meat Trade say improves carcases.

Australian Distributors:

HAIN & SEARIGHT

Licensed Stock and Station Agents

33 MACQUARIE PLACE

SYDNEY
MELASOL
ANTISEPTIC SOLUTION
(The soluble form of "Ti-trol")

The Standard Antiseptic

2½% solution kills b. typhosus in 30 seconds.
2½% solution kills haemolytic streptococcus in 30 seconds.

INHIBITS—
B. Anthracis in a dilution of ... ... 1 : 2500
Streptococcus Pyogenes in a dilution of ... ... 1 : 1200
Staphylococcus Aureus in a dilution of ... ... 1 : 300

THE MEDICAL JOURNAL OF AUSTRALIA
(July 10th, 1937, pages 49 and 52)
reports that "Ti-trol" has not produced any irritant or toxic effect
when left in the lungs, and reduces sputum and odour.

An Unequalled Record

TREMENDOUS KILLING AND INHIBITORY POWER,
over a wide range of infections.
NON-POISONOUS, NON-IRRITANT, NON-TOXIC.
PROVED by its widespread and general use in human and
veterinary surgery, where infection exists.
Used throughout the State's Stud Herds as a treatment and a
prophylactic. Economical in use.

Samples and literature on request.

Australian Essential Oils Ltd.
SYDNEY, N.S.W.
For Economy and Quality...

M. MALONEY
GRAIN AND PRODUCE MERCHANTS
185 Sussex Street - Sydney

PHONE MA 9048

COUNTRY LIFE

The Friend
OF STOCKOWNERS AND THEIR FRIENDS
. . . THE VETERINARIANS.

"COUNTRY LIFE" was this year commended and quoted by the Veterinary Journal, LONDON.

Annual Post Free Subscription, £1. Order from your Newsagent or COUNTRY LIFE NEWSPAPER CO. LTD.

60a PITT STREET :: SYDNEY
Books for Veterinary Students

BREEDING AND IMPROVEMENT OF FARM ANIMALS. By Victor Arthur Rice, Professor of Animal Husbandry in the Massachusetts State College. Third edition. 750 pages. 1942. 35/-, post 1/-

LIVESTOCK PRODUCTION. By Walter H. Peters, Chief of Division of Animal and Poultry Husbandry, University of Minnesota. 450 pages. 1942. 27/-, post 1/-

LIVESTOCK MANAGEMENT. By Joel S. Coffey, Professor of Animal Husbandry, and Lyman E. Jackson, Jnr., Dean, College of Agriculture, Ohio State University. Edited by R. W. Gregory. 500 pages. Illustrated. 27/-, post 1/-

ANIMAL BREEDING PLANS. By Jay L. Lush, Professor in Animal Breeding, Iowa State College. 437 pages, 50 illustrations. 1943. 33/-, post 10d.


VETERINARY OBSTETRICS (Equine and Bovine). By Dr. Franz Benesch, Professor of Obstetrics and Director of the Obstetrical Clinic in the Veterinary High School, Vienna. English translation edited by John G. Wright, F.R.C.V.S., Professor of Surgery at the Royal Veterinary College, London. 259 pages, 135 illustrations. 25/-, post 8d.

SPECIAL REPORT ON DISEASES OF CATTLE. Prepared by the U.S.A. Department of Agriculture Bureau of Animal Industry. 507 pages with illustrations and coloured plates. 1942. 17/6, post 1/-.

SPECIAL REPORT ON THE DISEASES OF HORSES. Prepared by the U.S.A. Department of Agriculture Bureau of Animal Industry. 554 pages with illustrations and coloured plates. 1942. 17/6, post 1/-

THE ANATOMY OF THE DOMESTIC ANIMAL. By Septimus Sisson, S.B.V.S., Professor of Comparative Anatomy in the Ohio State University, Columbus, Ohio; Member, Association of Anatomists. Third edition, 1938. 972 pages, with 734 illustrations, many in colour. 90/-, post 2/-

THE EMBRYOLOGY OF THE PIG. By B. M. Patten, Assistant Director of the Medical Sciences, Rockefeller Foundations. 2nd edition. 337 pages, with coloured frontispiece and 168 illustrations in text (containing 373 figures) of which 2 are in colour. 24/6, post 9d.


VETERINARY ANAESTHESIA. By John G. Wright, F.R.C.V.S., Professor of Veterinary Surgery, University of Liverpool; formerly Professor of Surgery, Royal Veterinary College, London. 207 pages, 57 illustrations. 17/9, post 9d.

Many other titles are also available on Agriculture, Soil Erosion, Livestock, Dairy Science, etc. Write for a complete list, which will be sent post free.

Order from — ANGUS & ROBERTSON LTD.

89 Castlereagh Street, Sydney.
FOR WORMS...

(Gastro-Intestinal)

ACTIVE CONSTITUENT
PHENOTHIAZINE 90%

The effective remedy for nodule, large stomach, small intestine, black scour and other intestinal worms in sheep.

When mixed with water as directed Phenovis powder forms a smooth cream best administered by a single action syringe or drenching funnel. (1 lb. will treat 25 grown sheep.)

Phenovis helps to clean up infected pasture areas, improve stock, avoid losses, and is more effective than any other known drench. Complete directions for use are shown on the label of the container.

Available in:
1 lb. tins 7/-
7 lb. tins 6/8 per lb.
Freight & Postage extra

SUPPLIES AVAILABLE FROM
STORES, MERCHANTS AND PASTORAL HOUSES
A PRODUCT OF
IMPERIAL CHEMICAL INDUSTRIES
OF AUSTRALIA AND NEW ZEALAND LIMITED
AN I.C.I. ANIMAL REMEDY
LEADERS FOR MORE THAN 30 YEARS

MORE than thirty years' experience of building and using farm tractors backs the efficiency, economy, and adaptability of the latest McCormick-Deering tractors now available for vital food production... Full range includes "Standard" and "Row-crop," kerosene and diesel-fuel models on steel wheels, or on rubber tyres for approved purposes... A "permit to purchase" must be obtained... For prices, full details, and help with your application...

... See Your Nearest INTERNATIONAL HARVESTER AGENT

INTERNATIONAL HARVESTER COMPANY OF AUSTRALIA PTY. LTD. (INC. IN VIC.)
BRIS. - SYD. - MELB. - ADEL. - PERTH
In Your HANDS...

Each country must work out its own salvation, plan its own future, and create its own culture. There is no disgrace in benefiting by the experiences of others.... of incorporating in our own composition well proven ideas of more mature nations. History provides a wealth of triumphs and vicissitudes from which to draw both inspiration and warning.

Australians come from stock inheriting the spirit of self-determination and independence. We have been through the hard school. Pioneering and privations have been experienced and the lessons learned.

Now we must settle down as a full-grown nation to take our articulate part in the international circle, to consolidate our gains, to expand our standards of living, to adapt the world's philosophies to our own particular environment, and so to develop a progressive and harmonious Australian way of life — recognised and respected.

RURAL BANK
OF NEW SOUTH WALES

Head Office: MARTIN PLACE, SYDNEY
Commissioners:
C. R. MCKERIHAN (Pres.), H. ROGERS, P. KEARNS
When the peace whistles blow, Australia will enter a new era of industrial accomplishment made possible only by the lessons learned and problems mastered in the factories of today. New methods have been evolved, new machines and tools have come into operation. Men, and women, too, have acquired new skills which will be put to good account in the service of Australia.

In the six great factories of GENERAL MOTORS-HOLDEN'S which have produced engines, wings, and thousands of other parts for aeroplanes, as well as big guns, transport vehicles, and torpedo sections, plans will be laid whereby the full resources of the organisation will be devoted to the furtherance of Australia's advancement in the days of peace.

The same unity of purpose, the same efficiency which has been the hallmark of a free enterprise serving Australia in the critical days of war, will be available to meet the needs of an expanding, virile nation.
For First-Class

SADDLE or
SADDLE-HARNESS

★

J. P. TALTY

6 Cunningham Street,
SYDNEY.

★

WRITE FOR CATALOGUE

Use

VITA-LICK PRODUCTS

FOODS, LICKS,
DRENCHES

Vita-Lick Ltd.
107-9 KENT STREET
SYDNEY
From the world’s Richest Oil Fields

... and your car

Every resource in production, refining and development is now behind Caltex Petroleum Products.

Already from the rich oil lands of North America has come the NEW CALTEX MOTOR OIL ... and soon, with relief from war emergency restrictions, will come other Caltex petroleum products — Motor Spirit, Lighting and Power Kerosenes, Distillate — each as advanced in its own sphere as the New Caltex Motor Oil, that has so quickly established itself in the public mind as TOMORROW’S OIL — TODAY!

Caltex throughout Australia...
Sayers, Allport Pty. Ltd.
53-55 Macquarie St., Sydney.
The Firm which has devoted 50 years of study to help the Primary Producer.

★

MANUFACTURERS OF

"The Drench-or-Vax"
Automatic Drenching and Vaccinating Gun.

"The Beaconray Pistolet"
Non-automatic visible barrel, administers Phenothiazine.

SAYERS DRENCHES:

Green Seal
Carbon Tetrachloride Drench.

Blue-Nik
Nicotine Copper Sulphate Drench.

MANY OTHER WELL KNOWN LINES.

S.A.P. Rabbit and Crow Poison

Let us help you with your problems. Any literature supplied with pleasure.

★

"When better equipment is made, Sayers will make it."

Davies & Cannington Pty. Ltd., Printers, Newcastle.
For Intravenous Medication

with the Sulphonamides

Larger packings of the Sodium Salts of *M. & B. 693 (Sulphapyridine) and *THIAZAMIDE — M. & B. 760 (Sulphathiazole) are now available and may be obtained for use

IN VETERINARY MEDICINE

These packings are:

*M. & B. 693 Soluble—
Boxes of 1 x 4 gm. amp.
Boxes of 25 x 4 gm. amps.

*THIAZAMIDE SODIUM—
M. & B. 760 Soluble
Bottles of 5 gm.
Boxes of 6 x 5 gm. bots.

*Trade Marks.

MAY & BAKER LTD.
Manufacturing Chemists
DAGENHAM — England

Australian Agents:
MAY & BAKER (Australia) Pty. Ltd.
5 PHILLIP STREET, SYDNEY —— N.S.W.