

VOL. XI.

SEPTEMBER, 1914

No. 9.

STUDENTS' CHRISTIAN UNION.

THE Christian Union starts this session under a numerical disadvantage, owing to the small number of students in residence. In common with all other branches of College activity, the Christian Union has lost some of its best supporters in the ranks of the volunteers. For this reason we appeal to the remaining students for continued and additional support, particularly in the matter of attendance at the Sunday service, or we shall not be able to maintain the present high standard of speakers. First class speakers cannot be expected to come to the College to address a few dozen students.

The Bible study circles have not felt the unsettled condition of the time and are as flourishing as ever. Thirty students are now attending them.

The attendance at the Sunday services has averaged 46. The speakers have been:—Mr. C. Potts on "A Man's Obligations," Rev. S. Best on Prov. XXIII., 23, Rev. Stacey Waddy on "War, and a Man's Duties in War-time," and Principal Thatcher on "The Origin of the New Testament." The orchestra will now be a permanent feature in these services.

Entertainments have been arranged for every Saturday during the session and we shall have another chance of seeing and hear-

ing many old College favourites. As the School of Arts is booked for every Saturday until Christmas we have decided not to hold a concert in Richmond this session, but the Y.M.C.A. Glee Club will come to the College instead.

HAWKESBURY COLLEGE LITERARY AND DEBATING SOCIETY.

THE general meeting of above society was held in the large lecture hall on 14th inst. Student Macdermott in the chair.

About 120 students present. Business: Election of officers for the ensuing session.

The secretary, student Tonking, read his report for the last session which was adopted.

The following were elected to hold office for the ensuing session:—

President.—The Principal, Mr. H. W. Potts.

Chairman.—Mr. C. Potts.

Vice-Chairmen.—Mr. Musson, Students Wessells, Macdermott and Tonking.

Committee.—Mr. White, Students Waller, Thorpe and Kershaw.

Secretary.—Student A. F. E. Smith.

A vote of thanks was carried to the outgoing secretary.

The meeting then terminated.

Hawkesbury Agricultural College Journal

*Patet ipse colendi haud facilem
esse viam voluit.*

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A MONTHLY JOURNAL

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NOTICE TO CORRESPONDENTS.

All communications relating to advertising should be addressed to the Manager, *Hawkesbury Agricultural College Journal*, 22-24 and 26 Goulburn Street, Sydney.

MEMBERS OF THE COUNCIL OF THE OLD BOYS' UNION.

Patron: THE HON. W. G. ASHFORD, M.L.A., Minister for Agriculture.
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Principal: H. W. POTTS, F.C.S., F.L.S., J.P.
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English Master: R. H. INDER, London University.
Instructor in Agriculture: J. W. HADFIELD (Diploma, H.A.C.).
Demonstrator in Botany: J. N. WHITTET (Diploma, H.A.C.).
Demonstrator in Chemistry: R. M. BEVERIDGE, St. Andrew's University.
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Stock Assistant: F. B. HINTON.
Orchardist: J. ALFORD.
Dairy Instructor: H. BARLOW (Diploma, H.A.C.).
Assistant Dairy Instructor: G. MCGILLIVRAY, H.D.A., H.D.D.
Farm Foreman: G. COBB.
Engineer: C. W. BRENNER.
Assistant Engineer: W. DRAYTON.
Experimentalist: H. BARTLETT (Diploma, H.A.C.).
Assistant Experimentalist: H. T. WATKINS, H.D.A.
Pig and Bacon Expert: E. J. SHELTON (Diploma, H.A.C.).
Assistant Pig and Bacon Expert: R. S. FORSYTH, H.D.A.
Poultry Expert: A. L. WYNDHAM.
Foreman Carpenter: M. ROBERTSON.
Assistant Carpenter: J. H. BULL.
Blacksmith: D. H. REAY.
Wheelwright: A. BUSH.
Saddler and Harness Maker: H. COLLINS.
Gardener: H. REID.
Registrar: S. F. ADAMS.
Assistant Registrar: R. A. LONGWORTH.
Storekeeper: A. G. WHITE.
Head Steward: F. PRATT.
Medical Officer: DR. HULGHAM.

VOL. II. Richmond, N.S.W., Sept. 1, 1914 No.

OLD BOYS,—

THEIR WHEREABOUTS AND OCCUPATIONS

[If any Old Boy deriving pleasure from a chance perusal of these columns, would for a moment reflect that there may be others desirous of ascertaining his whereabouts, or perhaps those of his fellow-students at College, he should not hesitate to forward a short paragraph to the Hon. Sec. of the O.B.U. Even an address would be acceptable. By so doing he would be assisting to further the chief object for which the Union has been called into existence—that of forming a link between the past and the present.]

J. E. CARRIE (1908, piggery certificate) writes from Kooroongarra, via Millmerran, Q., and sends a number of photographs which show the many phases of a pioneer's life. The photographs help us to realise the difficulties which beset him in the conquest of the bush and the scrub; we make the acquaintance of his kelpie, his horses, the sulky, his neighbours, hardy men like himself, the slab residence and the cheese and butter factory, that great adjunct to the development of the country, and we see



A PIONEER.

Ex-Student J. E. Carrie (1908), with his Kelpie at the entrance to his slab residence.

him planting corn with the spade between the standing stumps on the cleared areas. He states that the Berkshire boar received from the College grew at a great pace and would now kill at 250 lb., it is very quiet and is easily kept, and is fed on small quantities of steamed corn and thick separated milk, with a cabbage or any vegetable available. People in the district have taken a great fancy to him, and there are more applications at 10s. per sow than he is able to serve. With regard to the wild pigs in the district he has tried to secure a photo. Exaggerating their dimensions, he says you can only see the wild sow one way, and that is broad side on. These sows have no snort, but have trunks instead, 18 inches to two feet long, from the front of the ears. They grow no hair, the leg comes down like a good milking cow, even when prime fat they grow none, but they get pot-gutted, and will drink at a feed two buckets of thick milk each. Looking along an old sow from behind her you can see her big jaws sticking out on either side of his flat ribs. Their colour is black with red tipped bristles, others are black and white or yellow and white. It takes a good dog to catch them in a 200 yards sprint. His neighbour let a sow and its young loose in an 80 acre well grassed paddock. When liberated they set off at a dog canter, and went around the fence five times from sunset to dark. She must have kept going all night for the young gave it up and she was still going at daylight. Its owner had at last to run it down on horseback as he feared it would get out, and subsequently ran it towards our correspondent and the owner's son, and the former was enabled to place a noose over her neck. As an experiment he was mating her with the Berkshire. Speaking of the country he says that it reminds one of the Richmond River, but the scrub is not so rich in soil for grass purposes, although it appears to be superior for crop culture, it is, moreover, a drought resisting soil, having a good subsoil; it is not a creeper scrub, but dense, with tall trees of brigalow and belah, with wilga, black tea-tree, and other undergrowth of buffalo bush, hop bush, currant vine and native cotton bush. It costs £1 per acre to brush and fell light timber, and up to 30s. for heavier. It is mostly

beautiful wood to chop and as most trees have a leaning to the north or north-west, one is enabled to get breaks of six to 12 trees at a time. Moreover, the brigalow are all top heavy, and in a 60 feet there are only about 10 to 20 feet of limbs, which are at the top.

Allen A. Warden (dairy certificate, 1910) is in partnership with R. Tucker (1910) on the Patterson.

W. L. Warden (dairy certificate, 1909) is dairying on the home farm at Milton.

C. M. Warden (dairy certificate, 1909) is managing the dairy herd on Dr. Davies' farm near Scone.

W. D. Brooks (orchard certificate, 1907) has a place on the Yanco Irrigation Area.

H. J. Braund (diploma, 1909) has taken up his duties under the Water Conservation and Irrigation Commission. His present address is Griffith, via Willbriggil. He considers there is a great future for the settlement.

J. E. Donkin (1897-98) writes from Zak River, Cape Province, South Africa. He has been in Africa since 1899; during the last two years he has been representing the Sunshine Harvester Co., of Melbourne, and is at present assistant manager of the Zak River estate, where wheat and general farming are the chief interests.

D. Botha (1910) sends greetings to old friends and the officers of the College. In dealing with yields in South Africa the morgen is the unit of area which he explains is roughly two and a ninth acres. A bundle is the colonial term for a sheaf, and yields are sometimes spoken of as containing so many bundles. Norman Shaw, he informs us, is very busy at the Potchefstroom Agricultural College, Transvaal.

H. A. Lyth, H.D.A. (1913), is at present in St. Leonards, England, but he has booked his passage to Western Australia where he intends to settle near his brother. In June he made a week-end journey to Devon and saw some fine specimens of Devon red cattle. Around St. Leonards dairying with Short-horn herds is the chief farming industry.

L. F. Jurd, H.D.A. (1913), has settled down to his work at Wellington, N.S.W., and is supervising the work in the park,

which is being prepared for the Governor's visit to the show there next month.

H. P. Waring (diploma, 1910) has left Gracemere, Rockhampton, Q., and has gone to "Silver Springs," Brisbane. He is taking up pear and citrus fruit growing. We are to receive further details at a later date.

H. A. Boddam-Whetham (1911) has started orcharding at Terrigal, N.S.W.

Colin Ward (1910), we regret to announce, is lately deceased. We were informed by S. C. Ward & Co., Adelaide.

F. F. Hoddinott, H.D.A. (1913), is gaining experience on a farm at Narromine, and is reported to be comfortable and doing well.

In answer to our inquiries as to the whereabouts of Old Boys, we hear from B. C. Meek (1900) that he met H. W. Sharpe (1900) and R. J. Savage (1900) on Koorawatha Station, about four years ago. The three of them travelled to Grenfell when that district's show was being held. Sharpe was then engaged in horsebreeding at which he was doing well, whilst Savage was sheep-farming on the old place near Goulburn, he thinks.

TENNIS.

BY "SIDELINE."

THIS year their was a record entry of 20 competitors for the championship.

The tennis has been of much higher standard than that of the previous year, and some really first class contests have been witnessed.

Like last year it was very difficult to pick the winner and the next three to win their colours. At present eight have an equal chance for these honours. We are somewhat behind this year as only one court is being used for the championship, another was being used for the handicap and the third is under repair.

In addition to the championship there was a singles handicap with 20 entries. After some close and exciting contests Student Brett was placed first, with Student Goch runner-up. The play in the handicap was of even a higher character than that in the championship.

Students Brett and Goch are to be specially

congratulated as they were both heavily handicapped.

Owing to our having no lady players we were unable to enter a team this year in the Hawkesbury District Association. In previous years we have been allowed the privilege to compete.

BY G. N. BRETT.

ON August 9 an interblock tennis tournament was held. This was looked forward to with great enthusiasm and the chances of the different blocks was eagerly discussed.

In the draw A. block drew F. block, and B. block drew E. block.

A. block, which was represented by Porter, Hadley, Howard and Chudleigh, made a poor stand against F. block which was represented by S. Campbell, A. Campbell, Mayne and Brett.

E. block after some strenuous play made a draw with B. block. In the play, however, B. block proved to be the better team, and was represented by Paull, Scholer, Randell and Goch. E. block was represented by Macdermott, Yeats, Johnston and Allanson.

This was a great surprise as everybody thought that E. block would win the tournament.

The final proved to be rather an easy thing for F. block. The scores being:—

Campbell, S. and A. v. Paull and Scholer, 6—4

Campbell, S. and A. v. Randell and Goch, 6—3

Mayne and Brett v. Paull and Scholer, 6—4

Mayne and Brett v. Randell and Goch, 6—1

This gave F. block a win by 12 games.

For the winners Mayne and S. Campbell played best. The tennis proved a great success and provided a good day's amusement.

OUR EXCHANGES.

WE beg to acknowledge receipt of the following exchanges (with apologies for possible omissions):—*The City of London School Magazine, The Kingswood Magazine, The Reporter, School Journal (N.Z.), The Leys Fortnightly, The Pegasus, The Wesley College Journal, The Scotch Collegian, The Corian, The Mitre, "Our Alma Mater."*

NEW ZEALAND SECURES MORE OF OUR EX-STUDENTS.

J. W. HADFIELD (diploma, 1906), instructor in agriculture at the College, has been appointed to a similar position under the Auckland Board of Agriculture, N.Z. There he will again have ex-Student A. V. Donnan as a colleague, and New Zealand is fortunate in securing the services of these two instructors. We congratulate Hadfield on his well deserved advancement, but are sorry to lose him. Born at Lifu, in the Loyalty Islands, he was educated at the Eltham School, Kent, England, when that school was situated at Blackheath. He obtained the College Diploma in Agriculture in 1906, then did further work at the Sydney Technical School, and was appointed instructor in agriculture at the Hurlstone High School in 1907; in 1911 he was made experimentalist at the College and the same year was appointed to

the position of instructor in agriculture. The latter position involves a large amount of lecturing and field instruction which has increased correspondingly to the growth of the College.

John Bull (1902-5), who took a special course in carpentry at the College, has been appointed as instructor in woodwork and farm carpentry under the Wanganui Education Board. Following his course at the College he entered the trade in Sydney as an apprentice and attended the Sydney Technical College for a full course, taking honours in woodwork and building construction at his final examination. He was then appointed assistant instructor in carpentry at the College which he has now vacated for the post in New Zealand. He has taken up his residence with his family at Fielding, N.Z. At the College he was an enthusiastic and excellent rifle shot. We wish him good fortune in his new sphere.



FIRST XI. HOCKEY TEAM.

Standing (reading from left to right).—Students H. Purves, M. C. Evans, T. P. Hughes, J. P. Wills, F. McGowen, E. Abraham. Sitting.—Students S. G. Raymond, E. G. Chudleigh, R. A. Porter, W. J. Saunders, H. K. L. Hughes.

THE SPORTS CLUB.

THE half-yearly general meeting of the Sports Club was held on August 6. Mr. C. Potts was in the chair and there was some 90 students present.

The election of the committees for the various branches of sport was as follows:—

General Secretary—Student Patterson was elected but he subsequently resigned and Student Waller was elected in his stead on August 7.

Football—Students G. G. Potts, C. A. Lee and S. Campbell.

Cricket—Students F. E. Paull, C. J. Macdermott and S. Campbell.

Hockey—Students Saunders, Dyson, Hughes and Purves.

Tennis—Students Brett, Johnston and Goch. Swimming—Students Kemp, Rickards and Hollingworth.

Gymnastics—Students Thorpe, Kershaw and Smith.

Rifle Club—Mr. Inder, Students A. Campbell and S. E. Stephens.

General business.—The following motions were carried:—(1) "That all motions to be put to a general meeting of the Sports Club, and those which effect or alter the constitution must be displayed on the Sports Club notice board for seven clear days before such meeting, and further that such motions must be carried by a two-thirds majority of the meeting." (2) "In the event of a student or students wishing to call a general meeting of the Sports Club, a request, stating reasons, must first be submitted to the Sports Committee, who will then decide whether such meeting is to be called or not." The following motion will be moved at the next general meeting: "That the champion all-round athlete of the College have a distinction placed on his blazer and that this be retrospective."

JOURNAL NOTES.

WE acknowledge the receipt of the 30th annual report of the Bowral School of Arts, in which the *Journal* is mentioned as a contribution to the reading room.

FOOTBALL.

BY STUDENT G. G. ST. C. POTTS.

COLLEGE FIRST XV. V. HOLWOOD F.C.

THIS match was played at the College on August 15, 1914. Holwood kicked off against the sun, and Still returned the kick down the line with fine judgment. From the line-out Hadley passed to Johnston, the half back, who set the backs moving, which ended in Goodchild scoring at the corner after a very determined run. S. Campbell failed with the kick.

From now the College took charge and two tries came in quick succession by Mr. McGillivray, S. Campbell converting one. Mr. McGillivray obtained his tries by following up fast, dribbling with good judgment, and using his weight to advantage.

S. Campbell was the next to score. From the line-out Mr. McGillivray passed to the back and the ball went across to Goodchild on the wing, who was stopped, he in-passed to Campbell, who ran well and scored. McBroom converted. The next to score was McLaren, who followed up fast from a penalty kick by McBroom.

McBroom kicked at goal but the ball flew wide, and McLaren, rushing up fast, secured and fell over. Campbell converted.

The half-time whistle now sounded with the scores: College, 21; Holwood, nil.

From the kick-off Holwood pressed hard, but Still continually drove them back with good line kicks. His play throughout was brilliant, and he centred when on attack with well judged kicks.

Thorpe now scored a good individual try. From a kick Thorpe secured, beat two men, punted over the full back's head, and running fast showed the field a clean pair of heels and scored under the posts. McBroom converted. College, 26; Holwood, nil.

From a line-out Hadley broke through and passed to Allanson, who scored. Campbell converted. College, 31; Holwood, nil.

The play now was very even and S. Campbell was doing good work in the backs. However, play soon hovered near Holwood's line and from a line-out Morrow secured, gave the dummy pass to two men, and after

getting Allanson into a good position, passed, the last named scoring the try. McBroom failed to convert.

The final whistle went shortly after with the College victors by 34 points to nil after a very good game.

The points scored would make one think it was an uninteresting match, but this was not so.

The points were scored in an excellent manner, and the College played the best combination game of the season.

FOOTBALL RESULTS.

			Points for	Points against
June 8th	v. Hawkesbury Jun.	Won	20	0
" 13th	v. St. Annes	"	21	3
August 1st	v. Warroo	"	10	3
" 3rd	v. Manly Firsts	Draw	8	8
" 8th	v. University	Lost	8	25
" 15th	v. Holwood	Won	34	0

A DREAM.

OFFICERS V. STUDENTS FOOTBALL MATCH.

(By "Ref.")

JUST as the petty affairs of States, and the internal discords of nations faded into insignificance with the event of the present European crisis, so the Lecture v. Special match, as also all other struggles on the sport's ground, or functions within the walls of the H.A.C. lost their momentary interest and were forgotten when it was announced that the officers had accepted the challenge of the students to measure swords on the football field.

Anticipation made the great day seem far off, but it arrived at last. The crowd included some Richmond folk who were never before seen at a football match, Old Boys and every student to even the "fags" turned out.



SECOND XI. HOCKEY TEAM.

Standing (reading from left to right).—Students N. C. Ingall, H. F. Best, R. Hollingworth, A. Astbury, W. J. Barnes, W. L. Atkinson, H. G. Belschner, E. Furby, J. C. Mayne. In Front.—Students H. Purves, E. Abraham.

"Here they come!" said a small boy, who in the colloquial lingo of a student is termed a "runt."

Officers (colour, white)—Forwards, C. P. Potts, Hadfield, Musson, Inder, Watkins, Robertson, Helsham and Reid; halves, Wyndham and Collins; three-quarters, Goddard, Cobb, Barlow and Pratt; full back, Brebner.

Students (colours, maroon and gold)—Forwards, Torrens, Brett, McBroom, J. Morrow, W. Morrow, C. A. Johnston, Mahony and Hadley; halves, Lee and Johnston; three-quarters, McLaren, Goodchild, S. Campbell and Thorpe; full back, Still.

Watkins captained the Officers and had considerable trouble in settling places, as some argued when they saw the list up on Thursday evening, that they had played two weeks in the same position; moreover, others objected to Hadfield, as it was rumoured that he was turning "pro." and shortly would be going over to the "All Blacks."

However, at 3.30 p.m. the ball was kicked off by the Officers. The vanguard pranced off in fine style headed by Musson. Campbell mulled. From the scrum Johnston secured, passed to Lee, who ran strongly, but Potts soon "put the acid on him," the ball going wide. Wyndham, the nippy little half, gathered in, "ducked" behind the ruck and passed to Collins who attempted to screw punt, but was tackled. A ruck ensued but the referee blew his whistle, and cautioned Wyndham for "fowl" play and Collins for "whippin' in the leather" too freely. Both players remonstrated but a voice from one of the Officer's was heard to say: "What rot, when the referee speaks, you may suspect something is wrong. Biddle's been here for 23 years and he ought to know."

From the pack the ball went quickly from Collins, to Cobb, to Barlow, to Goddard who made a "bee line" for the posts, but cut in and passed to Pratt, "who was bumped out at the corner." He was carried off and Helsham suggested that he be put on the sick list.

From the line-out, Reid, "the white hope," got a mark. Potts took the kick. Reid, by a succession of digs of his heel, made almost a trench in which to place the ball. Potts observed the angle to be about 30 degrees.

Referee Biddle protested that he was wasting time drawing a diagram but he insisted and mechanically taking eight paces he kicked, the ball describing a beautiful parabola through the air, but the kicker having miscalculated the force to be applied, the ball dropped short.

From the drop-out Barlow, "the cream" of the backs, kicked into touch at the centre. From the line-out McBroom broke away, dribbled, and Thorpe picked up and "but-(er)ed" his way through the opposing backs and fell over. The referee had dropped behind being a little out of condition, but awarded a try. Campbell added the extra points. 5 to nil.

The whites now made a great rally in which Robertson and Cobb figured rather brilliantly—the former, who showed bad form at the start, now got his "punch," and was seen "hammering" his way through his opponents defence, while the latter several times "ploughed" through the ruck with the ball at the toe.

From the kick off Torrens fielded nicely and ran strongly, but was over-balanced by Inder, and brought him down rather roughly. The latter, who was cautioned, said: "He owed a grudge on account of several students being credited with kicking in the pack, and he intended to pay it off." From the scrum the Whites heeled and a great passing rush followed, the ball going like a flash from Collins to Cobb, who outpaced his man and passed to Barlow, to Goddard, who looked like being forced into touch, when, to the surprise of all, the full back (Brebner) dashed forward in top-gear, "engineered" his way through his opponents, and amid intense excitement crossed the line and brought the leather to mother earth. Making no mistake this time with the amount and direction of the force to be applied Potts notched the extra two points. A deafening shout rent the air. I awoke—on the floor—and to my intense surprise and horror remembered that I was on bails.

Changes of addresses should be communicated to the Editor without delay, otherwise he cannot be held responsible for the non-receipt of the paper.

THE WAR.

THE British Empire is at war! The last word has been spoken; the die has been cast; and the nations of the world have once more appealed to the sword as the arbitrament of international disputes, whilst the expression of friendship and goodwill have bravely left the lips of our treacherous enemy.

Many of our ploughmen no longer "homeward wend their weary way," but, forsaking their ploughs—that emblem of peace—they are metaphorically beating their ploughshares and reaping hooks into swords. However, we cannot all grasp the sword, and it would be equally futile if we could; but here in Australia let us not be despondent if many of us cannot join in the fight, because a noble work awaits us. Let us not forget that one of the greatest if not the greatest decisive factor in this titanic struggle is the question of providing food for the belli-

gerents. The British navy, true to its traditions, has succeeded in retaining control of the seas, and keeping the trade routes open. Therefore we will have opportunities of demonstrating our patriotism by seeking to maintain an adequate supply of foodstuffs to the motherland where they will shortly be required to drive away that fell enemy who overrides all barriers and knows no refusal of admittance.

Hence our agriculturalists are fighting for the Empire no less than the soldier; our primary producers no less than the sailor, and it is by means of this unity of purpose, this co-operation of activity, that we may together work out the solution of our Empire. If we think for a moment of the many mouths at home who must already be feeling the pinch of hunger, let us redouble our energies to regain the latent energy of the soil by extending our operations, by increasing the efficiency of our methods, and by utilising



GROUP IN THE EMPIRE DAY PROCESSION AT THE COLLEGE.

These three students, C. A. Johnston, R. J. McBroom and W. Needs, have volunteered for active service.

the information placed at our disposal by the advancement of agricultural science. The result will be an enormous increase in our production, which will in turn enable us to supply Great Britain with foodstuffs in the hour of her greatest need. This will be of infinite service to the old country and her allies, and will enable them to wage the war with greater heart, conscious that starvation and all its attendant horrors will not be allowed to ravage the land.

Let us then with calm confidence in God, in the naval and military strength of our Empire, but not in the fallacy of pride and dangerous egotism, each do our share towards the great task that lies before us—the fight of fidelity and integrity against selfish insatiable military glory and ambition, or right against wrong.

It is to be noticed that six of the first XV. forwards are going to the war, namely, McBroom, Brett, Torrens, Hadley, McGillivray and C. A. Johnston. Goodchild (wing three-quarter) is also going with them.

We all wish them the best of "good wishes" and trust they will be back again next season to keep up our football records. "Good luck to all."

The following students are with the forces:—R. F. Ellis (N.Z. Expeditionary Force), S. E. Stephens (Naval Reserve), C. C. Blumer (Infantry), E. S. Clayton (A.A.M.C.), A. S. Goodchild (A.A.M.C.), N. H. Lipscomb (A.A.M.C.), A. McLachlan (A.A.M.C.), T. F. Rutherford (A.A.M.C.), R. H. Threlfall (A.A.M.C.), J. P. Wills (to England for Officers' Training Corps), M. C. Evans, L. Yeats, F. McGowen, A. C. Kershaw, D. Evans, A. K. Maclean, E. Hadley, R. Playoust, C. A. Johnston, J. N. Brett, W. Needs, R. J. McBroom. Others are waiting for acceptance. The following officers have volunteered for active service:—Messrs. G. McGillivray R. E. Longworth, R. M. Beveridge.

Subscribers not receiving their copies are requested to communicate with the publishers

FOR PRACTICAL WORK.

HAWKESBURY COLLEGE. PRAISE FROM AN AMERICAN VISITOR.

DR. SNOWDEN, of the American Trade Commission, National Association of Manufacturers, visited the Hawkesbury Agricultural College yesterday as a guest of the Minister for Railways, Mr. Hoyle, in company with his colleagues, Mr. John Kirby, jun., and Captain David Parry, and was especially struck with the great work in the science of farming which is being accomplished at the institution under Mr. H. W. Potts.

Dr. Snowden was for some time European Commissioner for the Carnegie Foundation Society for the Advancement of Teaching, and in this capacity he visited the principal schools and colleges of every kind in Great Britain and on the Continent.

"I am quite certain," he said to a *Daily Telegraph* representative, "that there is no other agricultural college in the world that is doing more practical work than is being done at your magnificent institution. The science of agriculture and that which pertains to the land in all its forms has a tremendous bearing on the prosperity of the country. To prove that statement, I shall merely cite, as an example, Iowa, where simply the selection of maize corn has so increased its productiveness that the State is now benefiting £5,000,000 more per annum than it did before the selection took place. The same thing follows, of course, with everything which comes from the earth and the stock, and I am quite satisfied from what I saw that Mr. Potts is working along on these same practical lines."

Dr. Snowden added that he did not know how fully New South Wales appreciated Mr. Potts' efforts, but there was no doubt that he was deserving of every support.

The party included Mr. F. Tate, M.A., I.S.O., Under-Secretary for Public Instruction, Victoria; Mr. P. Board, M.A., Under-Secretary, Department of Public Instruction, Sydney; Miss Board; and Mr. Carew Smyth, Director of Technical Art, Department of Public Instruction, Victoria. —*Daily Telegraph*, May 22, 1914.

PATRIOTIC FUND.

FIRST contributions from the College to the patriotic fund:—

MR. C. POTTS, Mr. C. T. Musson, Mr. S. F. Adams, Mr. R. H. Inder, Mr. F. Pratt, Mr. J. W. Hadfield, Mr. H. Barlow, Mr. J. Aliord, Mr. C. W. Brebner, Mr. M. S. Benjamin, £1 each. Mr. H. Collins, Mr. W. Drayton, Mr. W. W. Smith and Mr. A. Bennett, 12s each. Mr. D. H. Reay, 11s. Mr. J. N. Whittet, Mr. E. J. Shelton, Mr. A. G. White, Mr. F. B. Hinton, Mr. M. H. Robertson, Mr. A. Peterson, Mr. A. Bush, Mr. J. Pye, sen., Mr. A. Reilly, Mr. T. W. Powell, Mr. H. S. Dixon, Mr. G. A. Silk, and Mr. W. J. Davies, 10s. each. Mr. W. Giddons, Mr. J. Carr, Mr. A. Knott, Mr. R. Watts, Mr. J. H. Dunston, Mr. Wm. Bull, Mr. H. Reid, Mr. L. C. Goddard, Mr. W. Biddle, Mr. M. Horan, Mr. G. Davis, Mr. Walter Drayton, Mr. G. Silk, Mr. N. Silk, Mr. H. Hough, Mr. E. Durrington, Mr. J. T. Pye, Mr. J. Gunton, Mr. W. Avery, Mr. G. N. Turnbull, Mr. P. E. Cupitt and Mr. H. Pearce, 8s each. Mr. J. Wearing, Mr. H. A. Pavey, Mr. H.

Burrow, Mr. F. J. Haring, Mr. H. Pearce, Mr. W. Murphy, Mr. A. Roberts and Mr. J. Tribblehorne, 7s. 6d. each. Mr. H. T. Watkins, Mr. R. S. Forsyth, Mr. W. Lewis, Mr. W. Lawler, Mr. G. Avery, Mr. E. Menzies, Mr. H. G. Pavey, Mr. R. Macman, Mr. J. H. Haffa, Mr. G. Burton, Mr. W. Wheatley, Mr. L. Pearce and Mr. G. J. Williams, 5s. each. Mr. J. Pye, jun. and Mr. E. R. Hudson, 4s. each. Mr. F. H. Reay and Mr. F. G. Ross, 2s. 6d. each. Mr. L. Pearce and Mr. G. J. Williams, 5s. each. Mr. Total, £36 13s.

SUBSCRIPTIONS.

WE beg to acknowledge receipt of the following subscriptions:—J. J. Gillies, 19s. (December, 1915); F. A. Power, 12s. 2d. (February, 1917); A. Newton, 5s. (September, 1915).



A COLLEGE CONTINGENT JOINING THE AUSTRALIAN EXPEDITIONARY FORCES TO THE WAR. Standing (reading from left to right).—Steward Killner, — Marlin (Richmond), Students M. C. Evans, F. McGowen, Mr. G. McGillivray, Students A. C. Kershaw, D. Evans, A. K. Maclean, E. Hadley, R. Playoust. Sitting.—Students Johnston, G. N. Brett, W. Needs, Major Helsham, Sergeant Major F. Ezzie (Richmond), Students R. J. McBroom, Steward E. Hird, all mounted A.A.M.C. men attached to the Light Horse.

THE PRINCIPAL'S TRIP TO EUROPE.

WE hear that the "Niagara," on which the Principal and Mrs. Potts are voyaging, reached Honolulu in mid-July. They have had a very fine trip so far. The Principal gave a lecture describing the College and its work to his fellow passengers; as a consequence there are at least four new students in view. The war must unfortunately interfere with the plans of his European tour, and his attention will most probably be confined to American and English agricultural conditions.

LETTER FROM PRINCIPAL POTTS TO MR. BRINSLEY HALL, M.L.A.

AN INTERESTING EPISTLE.

[From the Windsor and Richmond Gazette, 4/9/14.]

S.S. "Ventura,"

At sea,
May 21, 1914.

WE are approaching the American coast, and expect to pass through the Golden Gate to-morrow morning into the famous harbour claimed to be one of the finest in the world, and on the shores of which the renowned city of San Francisco conducts its immense trade with the Pacific. Our experience in the s.s. "Niagara" was very pleasant. Steaming records were made from port to port, and the vessel certainly added to her reputation as an ideal passenger boat. Our first port of call was Auckland, N.Z. On arrival one of our old College ex-students, Mr. Donnan, met us. He is now instructor in agriculture to the Technical Branch of the Department of Public Instruction. A car was secured, and we had the privilege of viewing Auckland and its harbours from a high eminence—an extinct volcano, four miles west of the city. Next day an inspection was made of the Seddon Technical College, under the able guidance of the Director, Mr. George, and we subsequently visited, per car, two schools in the suburbs with school gardens; also the experiment orchard and station conducted by Mr. Donnan for his pupils attending the Technical College. A short run into the country enabled us to realise what rich soils are available there for the farmer.

Leaving Auckland in the afternoon, we steamed for Suva, Fiji, and arrived May 6. The Department of Agriculture was visited, and subsequently a drive taken into the country to inspect tropical vegetation and crops in the shape of cocoanuts, rice, sugar, maize, oranges, mangoes, bananas and pineapples. The city is not well laid out, and the striking feature is the curious mixture of races. Here we note in groups Fijians, Hindoos, South Sea

Islanders and others, in curious costumes. The general aspect of the place denotes prosperity, evidently in response to the availability of cheap labour.

We re-embarked and started for Honolulu. The voyage to that point was characterised by fine weather and smoothness. Although the temperature steadily increased up to the equator, yet everyone seemed to be prepared for it, neither did the heat stultify the energies of the passengers. A strong committee was formed. A busy programme of sports, dances, concerts, &c., was prepared and carried out in a systematic manner. The aim was to keep everyone busy, and this was accomplished. On reaching Honolulu we began to realise the rich charm and rare beauty of the Island of Oahu. After residing there for four days we heartily endorsed the sentiment on Honolulu expressed by the famous American writer, Mark Twain: "No alien land in all the world has any deep, strong charm for me but that one; no other land could longingly and beseechingly hound me sleeping and waking, through half a lifetime, as that one has done. Other things leave me, but it abides; other things change, but it remains the same."

The Hawaii Islands were taken over from native control only 16 years ago. The official statistics set out in unmistakable terms the vast progress made in production and trade in that period. The climate and soil are ideal for the growth of sugar, coffee, rice, fibres, fruits, and spices. The climate and scenery are notable, the former being remarkably equable and the latter of unusual attractiveness. The annual average mean temperature is 72 degrees F., the minimum 51 degrees F., and the maximum 88 degrees F. The latter is and exceptional heat. Situated on the protected aspect of the Island of Oahu, the trade winds are modified by the Korean mountain range. The average rainfall reaches as high as 50 inches. The charm of the scenery lies in the picturesque setting of the city, flanked by wedge-shaped valleys, with the intervening ridges acting as cosy buttresses to the mountain range. The topical foliage on all sides, prominent among which is that formed by the Royal Hawaiian palms growing 40 feet high, add a distinctive aspect to the whole scene. The suburbs and city are furnished with an electric car-system in point of speed and equipment ahead of Sydney. A journey to each suburb is a delightful experience. All the busy city men live in the suburbs in bungalow-shaped houses of special design to suit the temperate climate, and choice and quaint forms of architecture are evidenced on all sides. These pretty and attractive homes appear in the midst of well-groomed gardens and shrubberies, well-stocked with palms, crotons, flowering shrubs and trees, with here and there a hedge of hibiscus or wall covered with magnificent flowering cacti. A notable feature is the absence of fences. Any person can stroll straight from the public road or pathway into the garden surrounding the private house. The only sign of division in adjoining properties is the footpath or marginal stone ridge a few inches above ground.

The soil is exceedingly rich, being volcanic in origin, and all the conditions needed to create wealth of growth, colour and foliage exist here in the maximum degree. All the public buildings, colleges and churches exhibit great taste and considerable architectural skill in their erection. The beauty of the edifice in each instance is enhanced by the well laid out grounds and gorgeous display of flowering scrubs, balanced by a variety of palms.

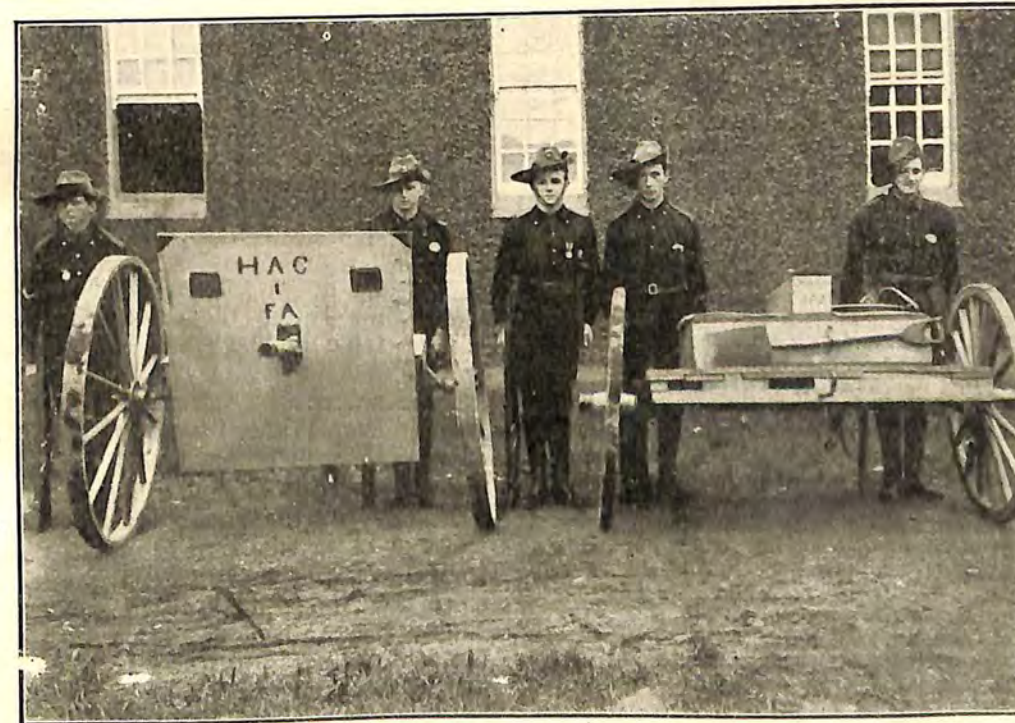
On getting into an open tram car it is a pleasant study to note the varied nationalities of the occupants—swarthy Hawaiians (or natives), tidy Japanese, dusky Hindoos, negroes, Filipinos, Spaniards, Portuguese and Koreans—all distinguished by their native dress or ornaments, and a few Americans or English. A glance at the statistical register shows that there is a population in the Hawaiian Islands of 191,909, of which number 52,183 lives in Honolulu. The nationalities appear as follows: Japanese, 80,000, Hawaiian (natives), 26,000, Portuguese, 22,000, Chinese, 21,000, Koreans, 4,500, Filipinos 4,000, American and English, 14,000, Spaniards, 2,000, Porto Ricans, 5,000. Naturally the question is asked, "Why all these foreigners?" The reply is: "Cheap labour to carry out sugar growing and other forms of production."

The sugar industry stands out boldly as the most important. The Americans have invested over

£12,000,000 in building and equipping sugar factories and refineries, irrigation works, and developing the plantations. It is curious to see the plantations, highly cultivated, on the sides of mountains up to a height of 2,800 feet, as well as through the rich valleys and flats. Last year over 500,000 tons of sugar were exported to the United States, of a total value for sugar and molasses of £7,500,000. One sugar plantation reaches a total output of 150 tons of sugar per day, and employs 3,000 hands, chiefly Japanese.

There are over 10,000 acres of land utilised solely for growing pineapples. There are at least a dozen canning factories, one of which is the largest in the world. The export exceeds two million cases annually (two dozen cans in each case). There are 30,000 cases on the ship we travel in going to San Francisco. The pineapples are fully twice the size of those we are accustomed to see in Sydney, and have a rich flavour. The pineapple juice is all saved, cleared and bottled for the aerated water saloons of the States. Pineapple nectar is a favoured drink in hot weather.

The exports of coffee are valued at £70,000, rice at £37,000, sisal hemp, £9,000, pineapples, canned and fresh, £774,000, bananas, £30,000, honey, £13,000, fruits and nuts, £700,000. Here we note a huge expenditure in plant, and the wonderful



ANOTHER EMPIRE DAY PROCESSION GROUP.

Students G. B. Jenkins, A. Archer, A. N. Jenkin, H. Osborne, J. W. Mackie.

enterprise of the Americans. The striking element from my point of view is the confidence and reliance Americans place on the application of science to their investments.

It was my duty to visit the well-equipped and staffed experiment station provided by the United States Government and the Board of Agriculture of the Territory of Hawaii, as well as the station for sugar experiments conducted by the sugar planters. In these are divisions of forestry, entomology and animal industry. The laboratories, with qualified chemists, entomologists, vegetable pathologists, sugar technologists, are kept fully employed on numerous problems submitted by the planters. Nothing is taken for granted. No money is wasted in so-called "practical" tests. Every investigation is conducted along highly intelligent and scientific lines. The investor and planter asks for the highest skill and scientific intelligence to guide him in his work of commercial investment. Apart from this there is an excellent agricultural college for training students to take the skilled positions in the various primary industries.

A national inquiry led to the point: "Are not the Japanese in such numbers a menace?" and the answer: "Oh, yes; but we have stopped importing them." Those in now are United States citizens. They increase rapidly, and retain their own customs and methods of living. They certainly provide labour in the field, but they are accompanied by their own doctors, grocers, storekeepers, artisans, and so forth. The United States, however, recognise they have a mission.

The islands in point of climate and soil cannot be excelled in any part of the world. Hence precautions are amply provided to maintain order and good government. The harbours are strongly fortified or being so. This is a naval station. Submarines are arriving this week from San Francisco. A permanent garrison of 7,000 federal troops is established. Annexation terminated the admission of Chinese, and of late years restrictions against the importation of Japanese by treaty have been established. The invasion of California by Japanese through Hawaii has thus ended. Now attention is being devoted to the importation of European labour in order to keep pace with the phenomenal development of the islands under the beneficent influence of the United States protection.

I was fortunate to arrive when the summer school of State school teachers was being held under the direction of the Department of Public Instruction. The teachers are nearly all Hawaiians. They take a keen interest in the work of the school.

One vital public function struck me as being worthy of emulation, and that is the effective system adopted by the people, municipal and health authorities, in association with the Bureau of Animal Industry, to suppress tuberculosis. Every cow is subjected to the tuberculin test at regular periods, and all reactors are promptly destroyed. Knowing that at least 25 per cent. of the cases of tuberculosis in children up to 16 years of age are caused by infected milk, this united effort on the part of all concerned is producing splendid results.

We left Honolulu with the abiding impression that the Hawaiian Islands are going to be centralised and controlling factors in the opening up of the Pacific through the Panama Canal. I cannot leave the subject without acknowledging the kindly courtesy of the Americans, their warmth of welcome, and the unobtrusive manner in which they always proffer assistance and timely advice. They are doing noble work in the Hawaiian Islands, and have to set the pace towards a higher civilisation, to the benefit of the native and the other races who have settled there under such genial and vigorating natural conditions.

GAINING EXPERIENCE IN AMERICAN FRUIT CENTRES.

BY EX-STUDENT F. OWEN FRENCH (Orchard Certificate, 1910).

(Continued from page 128.)

HOOD RIVER apples are known the world over and foreign agents speak of them as the "famous Hood River apples." Yet Hood River produces an infinitesimal part of the apples produced in America. New York State, Pennsylvania, Michigan, Missouri and Iowa, in the order named, are the leading apple-producing States in this country. And Iowa, fifth on the list, produces more apples than the combined output of Oregon and Washington.

The secret of this great fame is not so much the quality of the fruit, but the quality of the grading and the standardised pack. This is the great point in the industry that Australian apple growers should get and universally adopt. Then it will be only a short time before they, too, can enjoy a similar fame in the great markets of the world.

Prunes were first introduced to California in 1849 from France by a French sailor, who planted them in Trinity County. Not meeting with success there he finally moved to San Jose, in the Santa Clara Valley. It was not until 1880 that attention was paid to the prune as a commercial product, but since then it has made rapid progress until to-day the State of California with normal crops of the world produces between 50 and 60 per cent. of the entire world's output. Santa Clara Valley is the most important prune section in the State. It has 5,549,280 prune trees.

One finds orchards planted on all kinds of soils, and in various states of productiveness. The trees are more prolific and do better on deep, rich, sandy loams, and from that to a heavier soil. Where the soil is shallow or light they are not nearly so successful. Suitable soil means large thrifty trees, capable of producing from five to ten tons of large-sized green prunes to the acre. Whereas on the unsuitable soils two to five tons of small fruit are all that can be got from practically the same labour.

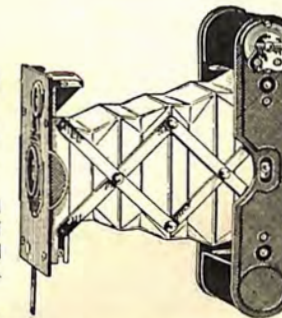
The trees are budded on the Myrobolam plum, bitter almond and peach stocks, and if the orchard is planted in real prune soil, Myrobolam stock is the best and seems to be the most favoured in all parts. In the Sacramento Valley in a large prune orchard in which I worked were growing side by side in a deep heavy loam, trees on peach and Myrobolam stocks. Though planted at the same time those on the plum stock were

larger, hardier and more prolific trees. Trees are planted 22 to 28 feet apart, and in most cases by the square system.

As soon as the trees get properly moulded into shape, many of the growers only prune every second year, and others only keep the dead wood cleaned out. There seems to be a great diversity of opinion on pruning, and I know most successful prune growers that allow intervals of two and three years between pruning. At the same time most growers admit that methodical pruning each year will give better and larger fruit, and it is the big prune that pays.

Irrigation, though not always essential, in many cases means a considerable increase in dollars to the grower. Generally speaking Santa Clara Valley does not depend on irrigation for its crop. The past summer has been dry and hot and as a consequence many of the orchards have suffered. Six miles from San Jose I was on two orchards, side by side. On the one, by a system of wells they had been able to give one watering to the greater part of the orchard. They also ploughed and worked up their land early in the spring, and by continuous cultivation conserved the moisture put there by the winter rains. In spite of the frost they had a fair crop. The adjoining place ploughed late and were unable to get the water, the result being that many of the trees died and the others got a bad set-back. The rainfall for the past two seasons has been considerably below the average of 16 to 20 inches, then a killing frost in the early spring, followed by the hot dry summer, reduced the prune crop to practically nil in this valley. But wherever the grower had access to water, he was able to harvest what prunes the frost left. On the Hecke Ranch, in the Sacramento Valley, which escaped the frost, we irrigated by the check system, three times between spring and harvest, getting a 50 per cent. crop. A noticeable feature about the orchards in the Santa Clara Valley is the absence of fences between orchards and on the road boundaries. The

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Pineapple Lard

Pineapple Bacon

ordinary observer cannot tell where one orchard ends and the other commences. In many cases one could pick prunes from the electric cars which run all through the valley.

Where fertilisers are used, it is principally stable manure from the cities, which, instead of being dumped in the ocean, is sold at reasonable rates. Some growers use the commercial fertilisers and a very great many don't use any fertilisers at all.

The trees blossom in the later part of March and the fruit ripens during the later part of August and September.

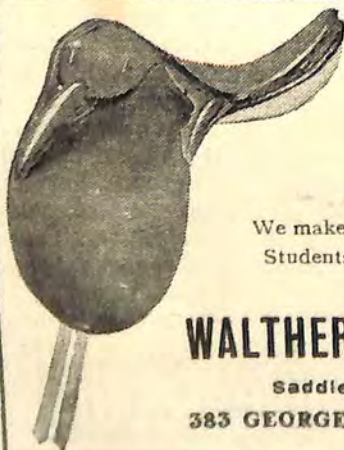
The early spring ploughing and constant summer cultivation, besides conserving the moisture makes a smooth and level surface for the pickers. As a general rule the prunes are never picked but are allowed to fall. The trees are gone over three or four times, each time giving a little assistance by a gentle jarring of the branches. The last time the trees are shaken hard so that all the fruit is cleaned right off. Intervals of seven days or more are allowed between each picking. Sheets are no more used and the fruit just falls right on to the ground. Pickers are paid from five cents per box, according to the size of the log box, or \$1.75 and \$2 a day. They pick the prunes up in buckets and dump them into the picking

boxes. The fruit is then hauled to the dipping house and passed through a solution of lye. About 5 or 6lb. of concentrated lye or caustic soda are used to 100 gallons of water, though there are many variations to the quantity used. The water is brought to and kept at boiling point. If the solution is weak they will have to remain in it longer; if on the other hand it is strong, a few seconds will be sufficient to cut the skin, which is the object of the dipping so that the fruit will dry quicker, without fermentation and with a clear dry meat. From the lye they are rinsed in clean fresh water and spread on to eight-foot trays, which are placed on to a low waggon and hauled to the drying yard and cured by the sun. Under normal conditions the fruit dries in from ten days to two weeks. When the fruit is about three parts dry, the trays are stacked leaving an air space at each alternate end. Here they are allowed to finish curing. They are then sorted over and any that are too wet are put back in the sun for a short time, sunburnt and any that show the seed are thrown out and generally used for hog feed. When sorted they are dumped from the trays into log boxes and carted to the packing house.

(To be continued.)

Pineapple Bacon

Pineapple Lard



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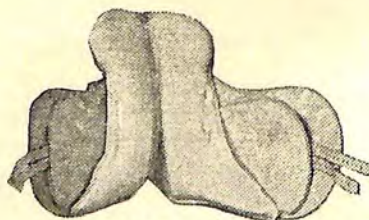
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