

VARSITY MAGAZINE SUPPLEMENT



TORONTO



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J. TURLE	J. CONWAY	W. DUFFIE
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W. LATHAM	D. RUSSELL	
J. WIGGINS	W. RUSSELL	

*Killed †Wounded ‡Prisoner †Returned

The above who have enlisted for Overseas Service during the war were, until the time of enlistment, associated with—

THE WILLIAM DAVIES COMPANY LIMITED.

NORTHERN ONTARIO

NORTHERN ONTARIO is an immense forest-robed land, stretching from the Province of Quebec on the east to Manitoba on the west, and extending north for 770 miles from Old Ontario to Hudson Bay, an area of 333,000 square miles, or 208,000 square miles larger than the British Isles.

Its climate is similar to that of Manitoba and its soil is as rich. There are from sixteen to twenty million acres of arable land, with only a handful of people, say 250,000 making up its population. Its forest wealth is very great, its mineral wealth alluring, and its volume of water power grand, for there are countless lakes, lakelets and rivers large and small. Game and fish abound, making it the sportsman's delight. Already there are thousands of miles of colonization roads and steam railways spreading like a spider's web over a huge part of that vast new land. Villages, towns and cities have arisen with a wonderful modern equipment. Northern Ontario calls not for the weak and careless, but for the hardy resolute, self-sacrificing pioneer. Some day it will be the home of millions and in the teeth of frost and fire and all other natural obstacles as in the Prairie, it will, like Ontario to the south, blossom as the rose.

The following features—crops, timber and minerals, tell in brief detail what the new land is and what it has done.

CROPS

The different kinds of crops grown in Northern Ontario are cereals, legumes or hay crops, roots and fruits. If regard be paid to proper variety and right time to seeding, many kinds of grains do well. Here the beginner should get information from older settlers or from the local representative of the Department of Agriculture. Late maturing grains may be sown for hay. Corn cannot be profitably grown but in certain parts. All kinds of clover have excellent growth, and large returns of various nutritious hay are got. Clover and timothy, with exceptional quality and vitality of seed, are profitably grown practically all over the agricultural areas. The right varieties of alfalfa give very good results in many parts. Avoid southern grown United States seed, and use seed of Grimm, Ontario Variegated or of the Russian varieties. Alfalfa will not be so much missed where red clover and alsike grow luxuriantly. The roots and vegetables of Northern Ontario are not excelled in abundance of growth by any part of the Province. Potatoes show great yields and mangels and turnips do well. An early variety of potatoes should be planted, particularly in the newer areas; for the spring and early fall frosts injure the crops of late maturity; whereas in the older parts, pretty well cleared of timber, summer frosts are gradually going away and the risk of hurt is less. Vegetables of almost any kind give excellent returns. Apples are suitable only along the north shore of the Great Lakes and around large inland lakes, but crabapples do well in a wider range. The beginner should make judicious inquiry as to the growing of fruit, strawberries, raspberries, gooseberries, currants, etc., practically all kinds of small bush fruits are grown successfully. Many small fruits such as black currant, blueberries, strawberries, raspberries, are growing wild and can be gathered and preserved for household use.

TIMBER

The timber of the great clay belt of Northern Ontario is principally spruce, poplar, balm of gilead, balsam, with occasional groves of jack pine. Red and white pine are seldom found except on the southern border. The timber is chiefly valuable as pulp, although quantities suitable for lumber are to be found where the land is high. Spruce up to a diameter of 20 inches is not uncommon. Balm of gilead and poplar are abundant on the high lands and make valuable lumber. Much of the spruce is of small dimensions, average from 4 to 10 inches in diameter. The pulpwood alone of Northern Ontario is a grand asset and a great opportunity for investment. Along the line of the National Transcontinental Railway there are about 300 million cords.

MINERALS

The total value of the mineral output of Ontario is \$57,856,375 for 1915, as against \$46,295,959 for 1914. This is an increase of \$11,560,416 of which \$10,588,756 represents the increase in valuation put upon the nickel and copper contents of the Sudbury mattes. But even on the old low basis of valuation the increase is \$684,129.

Gold exhibits a large advance in 1915 to be credited mainly to the mines of Porcupine, but offset to some extent by a decrease in silver production, its output, however, being 23,730,839 ounces. In gold production Ontario stands first among the Provinces. As high as 411,588 ounces of gold, worth \$8,501,391, were produced in 1915 as compared with 268,942 ounces worth \$5,529,767 in 1914, an increase of over 53 per cent.

The demand for nickel and copper for munition purposes has been abnormally great, and the mines have been worked to their utmost capacity.

LAND SETTLEMENT SCHEME FOR RETURNED SOLDIERS

Returned soldiers who are desirous of going upon the land under the Land Settlement Scheme of the Ontario Government, will be sent to the Agricultural Training Depot established on the Government Experimental Farm at Monteith, on the T. & N.O. Railway 444 miles north of Toronto. During the training period the men will be paid at the rate of \$1.10 per day. In addition, in the case of the married men, or men with dependents, an allowance of \$6 per month per child under the age of 16 will be made, together with an allowance of \$5 per month for the wife, this grant being in lieu of that which under military service would be received from the Canadian Patriotic Fund, the maximum grant under this provision being \$30 per month. An additional grant of \$20 per month will be paid in lieu of the Dominion Government Separation Allowance, which is paid to the wives of soldiers on active service.

The Colonies will be established adjacent to the line of railway, and it is expected that the adoption of the community system will greatly assist in developing the social side of farm life.

Returned men wishing to take advantage of this scheme should communicate with Mr. Albert Grigg, Deputy Minister of Lands and Forests, Parliament Buildings, Toronto, Ontario.

For further information relating to the Public lands of Northern Ontario write to

H. A. MACDONELL,

Director of Colonization, Parliament Bldgs., Toronto, Ont.

THE HON. G. HOWARD FERGUSON,

Minister of Lands, Forests and Mines.

HONOUR ROLL

Overseas and Enlisted for Active Service

COL. JOHN A. GUNN, D.S.O.	PRIVATE GEO. IMLACH (wounded and honourably discharged)	PRIVATE HARRY TYLER
LIEUT. COL. J. N. GUNN	" EARL IRISH	" JAMI SMELA
MAJOR R. ERNEST GUNN	" ROLAND GREEN	" ARTHUR FIELDS
FLIGHT LIEUT. MURRAY GUNN (killed in action)	" FRED WOOD (killed in action)	" F. PRESTON
LIEUT. ANDREW D. GUNN	LANCE CORP. JOHN SMITH (wounded)	" CLIFFORD BELL
CAPT. WM. GUNN, M.D.	PRIVATE WM. SMITH	" W. BRITTAIN
CAPT. J. G. GUNN, M.D.	" R. HUGHES	" ALEXANDER YULE (wounded)
LIEUT. ANDREW WM. GUNN	" CHAS. BRUNGER	" WILLIAM HAWKINS (wounded)
MAJOR EVAN GUNN ROSS	" GEO. BARNSDALE	" JOHN HAWKINS
LIEUT. HAROLD BAKER (killed in action)	" FRANK JAY (wounded)	" VASIL SPIROFF
SERGT. J. T. CLEVERLY (wounded twice)	" R. SEDDON	" SAMUEL FODEN
LANCE CORP. JAMES L. JAMESION	" FRANK CHAMBERS	" ERNEST WOODS
SERGT. NORMAN AUSTIN	" JOHN NICOL	" JOHN JOHNSON
SERGT. BERT LELAND (killed in action)	" WILLIAM RYALL (died of wounds)	LIEUT. ANGUS G. BELL
Co. SERGT. MAJOR JOHN B. IRONSIDE (killed in action, (Military Cross with Two Bars and Croix de Guerre)	" JOHN JOHNSTON	PRIVATE HUGH GILMOUR
CORP. A. INGRAM	" MORTON ORR (Military Cross)	" JOHN SIKOISKI
GUNNER ROBT. HARVEY	" HARRY ADAMS	" PETER BOGSWORTH
GUNNER WALTER ROBINSON	" WILLIAM BANKS (twice wounded)	" L. J. MORRIS
PRIVATE E. GRISE (killed in action)	" CHARLES NOON (twice wounded)	" EDWARD CHRISTOE
LIEUT. GERALD EARNSHAW	" EDWARD REEVES	" WILLIAM TUCKER
PRIVATE FRANK BALL (wounded)	" A. O. WINTERS	" WILLIAM MELLOR
PRIVATE CHARLES BALL (wounded and at home)	" GEO. H. HARRON	" WILLIAM CROOK
" JOHN MUIR	" GEO. MILLER (killed in action)	" ALEXANDER COWLING
" REGINALD WILD (killed in action)	" PHILLIP MACFARLANE	" JOHN FRASER
" W. LATHAM (wounded)	" JOHN MCKENZIE	" PETER MACKENZIE
" GEO. HOYHEN	CORP. DANIEL FULLERTON	" HUGH HAGARTY
" CHARLES MANN	PRIVATE ROBERT HAISE	" ROBERT WELCH
" FRED TATTLE	" ARTHUR MILES	" NORMAN MCLEOD
" ROBERT CHAPPELL	" WILLIAM SARGENT	" GEO. BAGSWORTH
" MALCOLM STEWART (prisoner)	" FRANK LAMYRE	" J. KIPPING (killed in action)
" WILLIAM MAY (honourably discharged)	" JOSEPH MCDOWELL	" J. WILLIAMSON
" FRED BINNS	" SAMUEL CAPPER (honourably discharged)	" JACK D. BOYNTON (wounded twice)
" EDWARD STRONG	" PETER TURNER	" JAMES CLARKE
" J. DUXBERRY	" EDWARD LATHAM	" WILLIAM MILLER
" B. COURTIS (killed in action)	" W. COLVILLE	" JOHN BARTHOLOMEW
" HARRY BREWSTER	" FRANCIS MORRIS	" S. J. MADDOCK (killed in action)
" GORDON J. ALLWARD	" HUGH CARSON	" ANDREW MITCHELL
" P. PORTER	" THOMAS MARJURY, Sr. (honourably discharged)	" T. SANDWELL
" JOHN HARROWER	" WILLIAM SANDERSON	" DAVID DAVIDOSN
" WILLIAM BENT	" JOSEPH CAMPBELL	" H. BONTHON
" THOMAS MARJURY, JR.	" EDWARD A. ADAMS (honourably discharged)	" H. STEVENSON
" THOMAS THORNTON	" WILLIAM ANTHONY	" R. JENKINS
" JOHN HALES	" A. LEADBETTER	" RICHARD MYERS
" C. SEEDS	" CHARLES NEALE	" ALLAN BOND
" A. AMEROD	" FRANK FRANCIS (killed in action)	" CLEMES HOLDEN (discharged)
" WILLIAM STEVENS	" W. ANDERSON	" CLIFFORD BULLOCK
" THOMAS TICKLE		" H. WILD (killed in action)
" A. GLODE		" THOS. BRENNAN (discharged)
		" JAS. WATTIE (killed in action)
		" PETER PARSONS
		" C. W. WILSON
		" F. EYRE (Military Cross)
		" JOHN HARPER

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The
· VARSITY ·
MAGAZINE
SUPPLEMENT

*What sounds are these, O Varsity, that fall
Loud on thy corridors, the bugle call,
The muster roll, the answering cry, the drum,
As from thy quiet halls thy students come.*

*Hush low the echoes of thy stone-flagged floor
Footsteps are passing now that come no more,
Bid them God speed, Oh Ancient Gateway Grim,
Well may He speed them for they go for Him.*
Leacock.



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University of Toronto
1917



THE BALFOUR CONVOCATION PROCESSION CROSSING THE CAMPUS TO CONVOCATION HALL

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Editor's Preface

THE present issue of the VARSITY MAGAZINE SUPPLEMENT, like its predecessor of 1916-1917, is dedicated to those members of our Alma Mater who during the past three years have left behind the attractive haunts and pursuits of academic life and abandoned pleasant prospects of easy and honourable careers in their chosen professions for the chance of wounds or death. During the past year many of them have returned bearing both the scars and honours of war, some to tarry with us but a short while ere they returned renewed in health and strength to "see this thing through," others incapacitated for further military service to take up the broken threads of life and fit themselves once more into the comparatively humdrum existence of the civilian. To all our returned comrades we extend a hearty greeting and to those on service our hopes for a safe return.

With the exception of a few short articles on the British and Canadian Red Cross Societies, the British Universities and sister Canadian Universities, this issue of the SUPPLEMENT is a simple record of the effect of the War upon the colleges and faculties comprising the University of Toronto, and of the various phases of war work organized and carried on in connection with the University. The record is an indication of the extent to which the University has in in the trying days since August 1914, become transformed into a war institution, offering up its best in men, in scientific research and achievement, in medical and healing skill, and the service of its men and women in many other ways for one fixed purpose, the winning of the War. The articles on the University Hospital Supply Association and Women Student-Farmers indicate that our women are no less keen than our men to do all that lies in their power in this great time of national crisis and opportunity.

Since the last issue of the SUPPLEMENT a year ago the list of our Honoured Dead has lengthened out from one hundred and twenty to three hundred and forty-six names. Because of the splendid traditions they have created by their spirit of self-sacrifice in the cause of Justice and Freedom and by their loyalty to Empire and Country these men have not died in vain. They have added a glorious page to the history of our Alma Mater, which will inspire and stimulate her students for years to come. In this record some thirty-five pages are devoted to a photographic section dedicated to them in the beautiful words of Rupert Brooke, the student-soldier and poet of Cambridge, who himself gave up his life to the Cause. This section contains the photographs, names, and colleges or faculties of three hundred and forty-six members of the University of Toronto who died on Active Service from November 1914 to December 1917.

A second photographic section of twenty-five pages inscribed "On Active Service" contains the photographs of one thousand three hundred and forty-four members of the University now on service. This section is supplementary to the Active Service Section containing two thousand and seventy-two photographs which appeared in the 1916-17 edition of the MAGAZINE SUPPLEMENT. On pages 104 and 105 of the present edition is a printed supplementary list containing the names of five hundred and forty members of the University on Active Service whose photographs it has not yet been possible to obtain.

Together the Honour Roll and Active Service Rolls show approximately four thousand three hundred enlistments from the University. It is a source of pride that the Military Service Act found very few eligible men in our colleges. In some few instances where the death occurred while the record was going through the press a photograph is duplicated in the Honour and Active Service Rolls.

The data for these lists is based on the Official Roll of Service compiled and issued by Professor G. O. Smith for the University, but a few additions will be found in the case of students of the Ontario Agricultural College, the Ontario Veterinary College, and the Ontario College of Pharmacy. The Roll of Service includes only the names of *graduates* on active service from these institutions holding the degrees of

B.S.A., B.V.S., Phm.B. respectively, together with a few others registered as occasional students in the University. THE VARSITY MAGAZINE SUPPLEMENT includes also the names of *undergraduate* students from these colleges, as they have standing as voters for representatives on the Students Administrative Council. Only a few names of such have been obtained and it is quite possible that individual colleges have names on their active service lists which will not be found in this record. Owing to the changing nature of the available data the records can only claim to be approximately correct.

In sending out this edition of the SUPPLEMENT the Students Administrative Council desires to acknowledge the kind reception given by friends of the University to the last issue, which made it such a success financially, and also to acknowledge the whole-hearted co-operation of the Women's Student Council in the organization of the various campaigns for patriotic purposes the Council has been called upon to undertake. In connection with the recent Victory Loan Campaign the Student's Administrative Council was asked to supply 300 men for the final three days effort. The response of the Students was so hearty that 500 men were available. These gave up three days of work without remuneration and sold approximately \$500,000 worth of Victory Bonds. The Council aims to act as a clearing house for student patriotic activities and acknowledges the splendid support and generous response of the students. A summary of disbursements is appended for information:

Profits of VARSITY WAR SUPPLEMENT 1915.	
U. of T. Hospital Supply Association	\$2,125.96
Profits of VARSITY MAGAZINE SUPPLEMENT 1916.	
U. of T. Hospital Supply Association	2,000.00
Canadian Red Cross, Cost of 2 Ambulance Cars	6,000.00
Re-Education Fund, Hart House, U. of T.	500.00
Military Equipment Fund.	
67th U. of T. Battery C.E.F.	1,750.00
U. of T. Overseas Training Coy., C.E.F.	1,550.00
Belgian and Serbian Relief Fund	474.50
British Naval Relief Fund	240.00
British Red Cross Campaigns of 1915, 1916, 1917 . .	7,611.87
Patriotic and Canadian Red Cross 1916	2,257.00
Patriotic and Canadian Red Cross 1917	1,584.85
Total	\$26,094.18

The editor desires to thank the heads of the colleges and faculties who by their articles have made possible the compilation of this publication, together with Professor G. O. Smith, Editor of the Roll of Service, and Miss O'Neil of the Registrar's Office, who have given courteous assistance by supplying data for the lists. The editor is indebted to Mr. J. B. Brodie and Miss P. Wade for much valuable assistance, as also to Mr. C. C. Grant, who, as Secretary-Treasurer of the Students Administrative Council has charge of all business arrangements in connection with the publication and sale of the SUPPLEMENT. We are grateful to the relatives of student-soldiers who have sent in photographs and to the advertisers who have so generously supported our enterprise. All profits from the publication will be disbursed for Hospital and Red Cross work. Corrections of data contained in the photographic records will be gladly noted if addressed to Sidney Childs, Editor of VARSITY MAGAZINE SUPPLEMENT, University of Toronto.

Copies of the SUPPLEMENT may be obtained post free for 75c. each. Address to Collier C. Grant, Varsity Magazine Supplement, University of Toronto.



President of Students Administrative Council.



HIS MAJESTY KING GEORGE V.

His Excellency the Governor-General of Canada

THE ANCIENT Universities of the Mother Country and their younger sisters throughout the Empire have by sacrifice and service shown their devotion and sense of duty to the common cause.

Much has already been accomplished but further efforts are necessary before that complete and final victory is achieved which can alone preserve liberty and freedom for the world. This heritage of liberty has been handed down to us through the toil and labour of our ancestors, many of whom have been trained in the great universities of the Empire. It is for the present generation to ensure that their labour has not been in vain.

The University of Toronto occupies an honoured place in that great record. Over 4,000 of her sons have crossed the seas to fight for their country. Many of them have made the supreme sacrifice.

Many of her daughters are helping to tend the sick and the wounded and to minister to the wants of the men in the trenches. Many are aiding in the great work of saving and retrenchment at home.

I am confident that the students of the University and their fellow students throughout the Dominion will continue to add still further hon-

our and lustre to the great and distinguished institutions of which they have so good reason to feel proud.



HIS GRACE THE DUKE OF DEVONSHIRE, G.C.M.G., G.C.V.O.

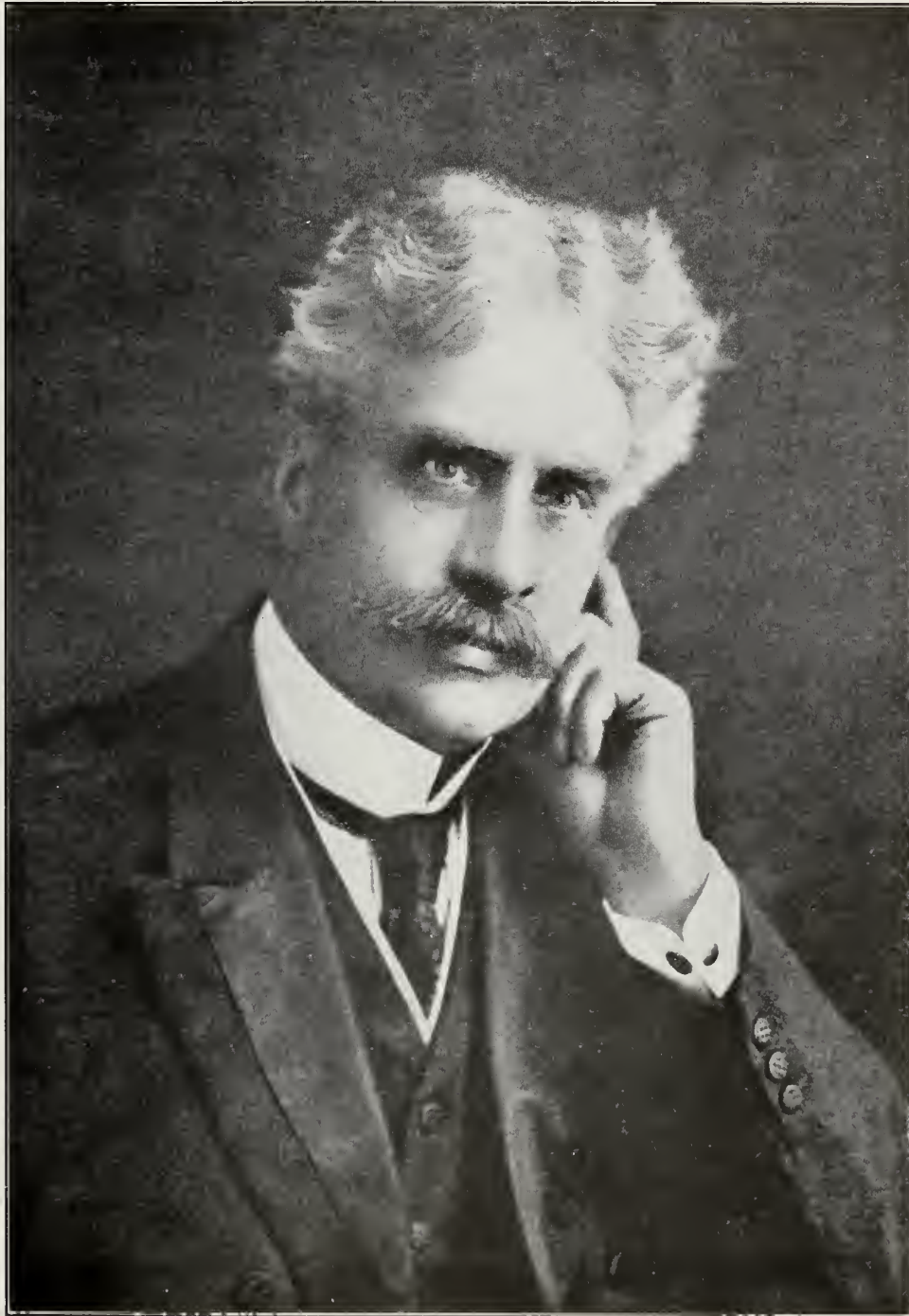
A Message to University Men

BY SIR ROBERT BORDEN
Premier of Canada

IF one of the great services which our universities render consists in the maintenance and communication of a spiritual and intellectual standard which will permeate and

with the facts and implications of international relationships and to realize and estimate before it is too late the forces at work in the world.

inspire the community, it is obvious that they never have had a greater opportunity than is held out to them to-day. There are truths for whose integrity and preservation in the world we as a nation asserted more than three years ago that no sacrifice was too great. Let us not forget it. Let us not forget that we went to war with a high conscience. Remembering this we shall fight with a quiet confidence that begets strength even while the struggle becomes one for our very existence. Why we must win may be learned from contemplation of what failure would mean to ourselves and to the world. Splendidly the young men of the universities are responding to the demands of the hour; by their example, by the memory of those of them who have made the supreme sacrifice, it is laid



SIR ROBERT BORDEN

on the universities themselves through all their continuing life to assume their share in the task of reading aright the lessons of these times---so that to-day all needed effort and sacrifice may be forthcoming; so that in the future the nation may be prepared, not only physically but mentally, to grapple

upon, this inspiring example set by their fellows overseas who have thus so notably proven their high conception of duty and service to the State, must appeal with an especial force. I am confident that the response in every student activity will be worthy of the appeal.

The response of twelve thousand graduates and undergraduates of Canadian Universities now on active service gives eloquent and cogent testimony as to the spirit which has inspired them. Of those so serving about six thousand are undergraduates who have gone forth out of the ten thousand male undergraduates of Canadian Universities to discharge the highest duty and undertake the supreme service for their country. It is thus apparent that our colleges are playing a notable part in the events of tremendous significance through which we are passing and that the highest types of intellectual life in this country have made most notable sacrifices for the ideals and purposes that inspire the nation. To the young men who remain at their studies, who have not yet been called

Our Universities

BY SIR W. H. HEARST,
Premier of Ontario

I DESIRE to render my tribute of deep respect and admiration to the memory of the Graduates and Under-Graduates of our Universities, and particularly the University of Toronto, whose lives have been spent in the great struggle for liberty and also to those who have been wounded in the cause. Not for an instant did they hesitate in risking their lives, with all their brilliant prospects, for our



SIR WILLIAM H. HEARST

protection, and for the protection of the Empire. God grant that their efforts may not, through the indifference of others, prove fruitless. May the undying memory of their noble sacrifices stir every available man among us to a sense of his responsibility and privilege, so that Canada will join with her Allies in striking a mighty and irresistible blow for victory and for freedom.



PROVINCIAL PARLIAMENT BUILDINGS, TORONTO

The War and Canada

BY SIR EDMUND WALKER

(Chairman of the University Board of Governors.)

A YEAR ago we felt sure that the fighting strength of the Central Powers had passed its climax, but on the Western front they are still offering a gigantic opposition to the Allies. It is, I think, safe to say that we are more sure than ever of final victory but more uncertain as to the tribulations which must be endured before we attain our end. Poor distressful Russia, instead of being a vast reservoir of men who could be despatched to the Eastern front as they were required, is but an undisciplined mob of unpractical idealists, individually well-meaning for the most part, but hopelessly disordered and ineffective. The collapse of Russia as a fighting force and the Italian disaster have heartened our enemies and there is much in the general situation to aid the Junkers in their endeavours to persuade the German people of their ultimate success. On the Western front, however, we are winning, step by step, and have proved our superiority in trench fighting, in artillery and in the air. We have not yet driven the enemy from the sea coast in Belgium but hope to do so before winter sets in. The war in Asia, important as it is, is overshadowed by the events in Europe but the success of our troops in a most difficult campaign deserves the highest praise. At sea the submarines are being fought with the characteristic vigour and originality of the British navy but the losses still exceed the new tonnage being built.

The greatest event of the year is the entrance of the United States into the war and this has been followed by the breaking of relations with Germany by almost all states outside of Europe. Germany is thus opposed to a hostile world and the utmost for which she may hope is to tire out her enemies and thus secure a peace which she may employ in preparing for another great war. If, however, the Allies are true to each other and put forth all their power, Germany can secure only the kind of peace that we desire, and that we must have if we are to attain our common aims. This means that the German people must put aside their ruler and assume responsibilities as a nation which will make them akin to the democracies which they affect to despise as inefficient forms of Government. Great as Germany's internal troubles may be, we have no reason to think that they are ready to yield to this extent and they certainly will not yield until, after a crushing defeat, their total ruin stares them in the face.

Can there be any doubt as to our duty in a situation of such gravity? As has often been said the last man, the last

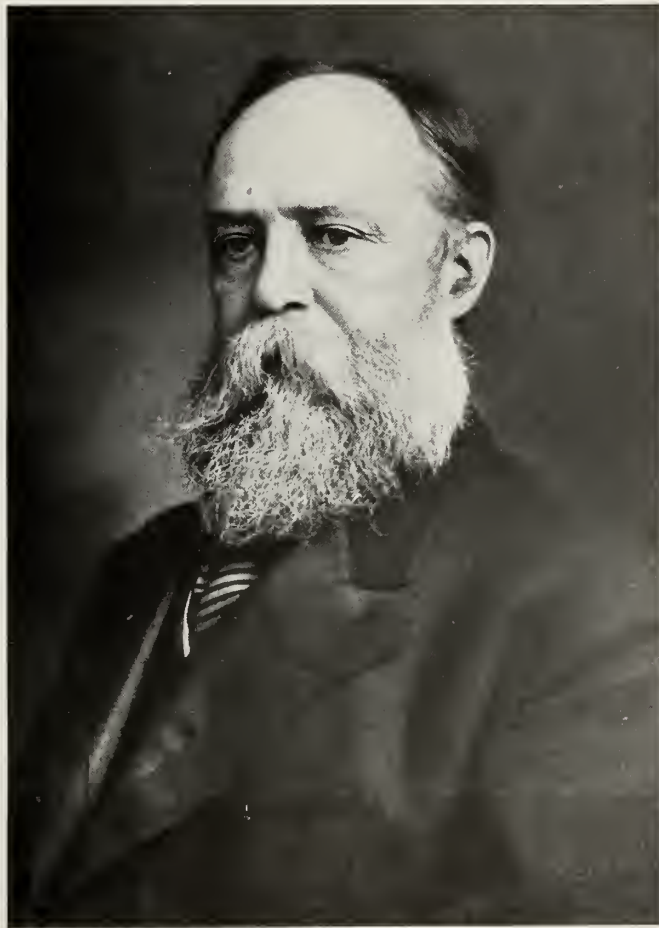
gun, the last dollar may be the means of winning the war. We must do more and more every day until peace comes. Some people may perhaps say: "Haven't we done enough? Done enough for whom? It is our own war. How can we have done enough until the war is won?"

We used to be irritated with our American brothers because they did not realize that we were fighting for the peace of the whole world—fighting thus for them—and they were not helping. Now that they have come in shall we let them say that we are not doing our full share?

Our troops have earned undying honour in the war, they have contributed new ideas and methods and have shown a surprising aptitude for war. Our long honour list of dead and wounded makes us humble and saddened by the terrors of war, but surely these are not reasons for faltering, rather is our cause thrice endeared by the blood that has been shed.

A recent University report states that the graduates, undergraduates, former members of the Faculty and others connected with the University who have enlisted, number over 4,000. Our honour roll shows that 346 have been killed and that the wounded and missing number 415. Honours have been bestowed upon 205 of our men and 122 have been mentioned in despatches. From Canada as a whole 435,000 of our best have enlisted and the casualties as recorded at 24th October were 125,886 of whom 33,485 are returned as dead, and 92,401 have been wounded or are prisoners or are missing. Shall we be true to those who are still fighting? Shall we keep faith with those who have fallen?

If we are to keep faith we must realize much that we have not realized yet. Many families in Canada have suffered and these deeply realize what war means. The vast majority of the men, women and children in Great Britain are daily submitting to sacrifices and discomforts which make war a real thing to them, but the majority of our people have not been deprived of any of the pleasures of life and live as if no war existed. Cheerful we must try to remain; sorrow of itself will do no good; only the stout-hearted can help in the larger way to win the war; but each and all should take their part in the war. If we cannot ourselves go to the front let us do something if it be only to give all we can to every good cause that aids the conduct of the war. We all hope to be alive when the war is over and we must live with our consciences when that time comes. God help us if we find that we no longer can respect ourselves because we did not do our bit.



SIR EDMUND WALKER

Sir Robert Falconer

President of Toronto University

THE third edition of "Varsity" is another tribute to the spirit and valour of our Toronto men. They have done their share in creating the fame of our "incomparable Canadian army". By discipline within and courage and resourcefulness in meeting the foe they have proved themselves to be soldiers who have never been surpassed in all the qualities noble and humane that win a people's admiration and who also have mastered the technique of war. Again we pay our profound respect to our Canadian army and by special mention to those who belong to this University.

Death is so frequent a messenger that our sympathy may seem at times to suffer a stay in the fulness of its flow, but that is only seeming, for the word of loss comes fresh to each father, mother, wife, sister, brother, and the news is borne with unflinching courage. To all those who have been bereaved by the passing of those who have fallen since the last issue of "Varsity" we wish to express the hope that they will not forget that the whole University grieves with them in their proud and faithful sorrow.

Since the last issue of VARSITY SUPPLEMENT the modern world has changed with baffling rapidity. Almost every week Russia has presented fresh causes for anxiety, and for the present at least she is to be counted out of the war, if indeed her action does not give positive aid to our enemies. Changes of great significance have been taking place within our home boundaries and those of our allies, the results of which will continue long after the present war will have come to an end. There have been the incessant shifting of anxiety and hope as we have followed the course of the submarine campaign, the fluctuating operations on the various theatres of the war, and indications of domestic troubles among the central powers. The total effect of these activities is said by our leaders to be reassuring and in spite of much to discourage we have good reason for facing the future with hope.

One great fact, however, which outweighs all the dis-

pointments, disaffections and defeats that can be put into the opposing scale, is the entrance of the United States into the war. At once a breach was made in the financial difficulties that were threatening to become an unsurmountable obstacle

in our path to victory, the food situation was somewhat relieved, and an almost inexhaustible supply of men became available for the future. These contributions to our strength are of course of vital importance, but beyond and above them are the new relations which have been created between the members of the English-speaking families. The course of history during the last hundred years, often it must be confessed running close to the brink of danger, has made us ready for a new understanding. For some time, a year ago or more, the possibility of a diversion of that course into a region of alienation filled most of us with disquietude, but that danger is all past, and from now on we recognise that our peoples with so much that is common in stock, history, literature, language, and moral attitude, will as allies endeavour to preserve the best of our inheritance against the alarmingly efficient foe, who would obliterate our systems of government and society if he could.

Especially on this continent shall we continue to realise the value of co-operation with our new ally. Already we have in this war received abundant signs of their goodwill, and again recently all Canadians have to acknowledge with deep gratitude the prompt, generous and remarkably effective help that our friends from Boston, New York, Washington, and other cities poured into desolated Halifax in the hour of her unspeakable calamity. Friendship will now be secure between us in our days and we hope for ever. To have strengthened it is another of the unexpected results that was not planned by those who engineered the war.



THE "OLD GREY TOWER"

R. A. Falconer

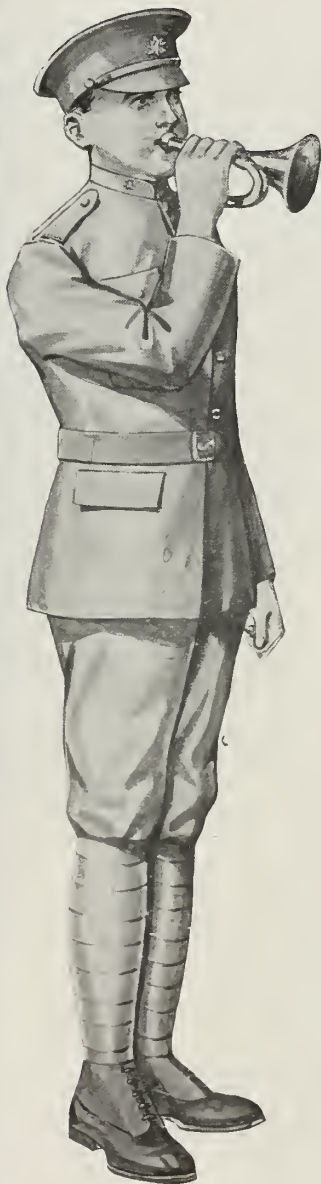


THE DEAD.

Blow out, you bugles, over the rich Dead!
 There's none of these so lonely and poor of old,
 But, dying, has made us rarer gifts than gold.
 These laid the world away; poured out the red
 Sweet wine of youth; gave up the years to be
 Of work and joy, and that unhop'd serene,
 That men call age; and those who
 would have been,
 Their sons, they gave, their immortality.

Blow, bugles, blow! They brought us,
 for our dearth,
 Holiness lacked so long, and Love,
 and Pain.
 Honour has come back, as a king, to
 earth,
 And paid his subjects with a royal
 wage;
 And Nobleness walks in our ways
 again;
 And we have come into our heritage.

—RUPERT BROOKE



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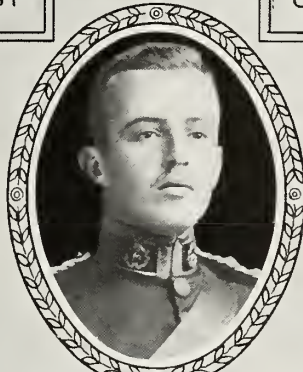
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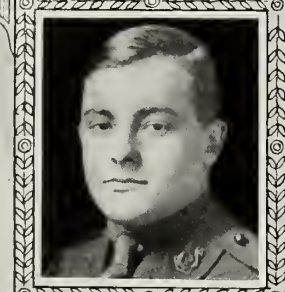
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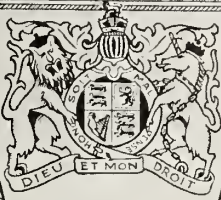
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UNIVERSITY COLLEGE



LIEUT. FREDK. J. ANDERSON
APPLIED SCIENCE



PTE. PERCY L. BARBER
EDUCATION



2. LIEUT. GEORGE H. BERRY
UNIVERSITY COLLEGE



MAJ. R. H. BONNYCASTLE
MEDICINE



MAJ. GEO. H. BOWLBY
TRINITY



COL. RUSSEL H. BRITTON
UNIVERSITY COLLEGE

HONOUR ROLL



CAPT. RICHARD AUSTIN BROWN
UNIVERSITY COLLEGE



CPL. WILLIAM PERCY BUCHANAN
EDUCATION



LIEUT. B.H.A. BURROWS
APPLIED SCIENCE



CAPT. WILLIAM G. BUTSON
EDUCATION



LIEUT. JOHN JAMES CAMPBELL
APPLIED SCIENCE



SGT. ARTHUR HENRY CAVILL
WYCLIFFE



GNR. JAMES R. CHAPMAN
APPLIED SCIENCE



2. LIEUT. PAUL B. CLARKE
TRINITY



FLT. CMDR. C.M. CLEMENT
APPLIED SCIENCE



LIEUT. W.H. CLIPPERTON
EDUCATION

HONOUR ROLL



PTE. WALTER H. COOPER
TRINITY



2ND LIEUT. L. J. CREASY
WYCLIFFE



LT. J. N. CUNNINGHAM
APPLIED SCIENCE



LT. GEORGE T. DAVIDSON
UNIVERSITY COLLEGE



LT. LAWRENCE L. DAVIDSON
UNIVERSITY COLLEGE



CAPT. ROBERT J. G. DOW
TRINITY



MAJ. JAFFRAY EATON
UNIVERSITY COLLEGE



SGT. HUBERT B. GALPIN
EDUCATION



BDR. R. T. GARDNER
APPLIED SCIENCE



2ND LT. W. M. GEGGIE
UNIVERSITY COLLEGE

HONOUR ROLL



LT. STEWART M. GOODEVE
UNIVERSITY COLLEGE



LT. HENRY A. HARDING
TRINITY



BDR. ROY RICHARD HAWKEY
APPLIED SCIENCE



LIEUT. ERNEST D. HOSKEN
UNIVERSITY COLLEGE



CAPT. RICHARD A. IRELAND
MEDICINE



LT. COL. THOMAS C. IRVING
APPLIED SCIENCE



2ND LT. SINCLAIR B. JOHNSTON
UNIVERSITY COLLEGE



MAJOR HERBERT JONES
MEDICINE



LIEUT. ERNEST R. KAPPELE
UNIVERSITY COLLEGE



CPL. HUGH REID KAY
KNOX

HONOUR ROLL



CAPT. A. J. LATORNELL
APPLIED SCIENCE



2ND LIEUT. H. LAWRENCE
WYCLIFFE



LIEUT. GORDON F. LESLIE
EDUCATION



L/CPL. MELVILLE E. LOBB
UNIVERSITY COLLEGE



CAPT. JAMES W. LOWE
PHARMACY



CAPT. C. K. MACPHERSON
APPLIED SCIENCE



SPR. AUBREY T. MCFADDEN
VICTORIA



MAJ. A. E. MCLAUGHLIN
UNIVERSITY COLLEGE



PTE. IAN C. MALLOWH
DENTISTRY



GNR. FRANCIS V. MORTON
UNIVERSITY COLLEGE

**HONOUR ROLL**

 LIEUT. EDGAR W. PATTEN UNIVERSITY COLLEGE	 SPR. CHARLES F. PATTERSON VICTORIA	
 SGT. ROBERT D. PATTERSON APPLIED SCIENCE	 LIEUT. F. C. PEPPIAT WYCLIFFE	 LIEUT. H. V. PICKERING UNIVERSITY COLLEGE
 2ND LIEUT. P. H. RANEY APPLIED SCIENCE	 L/CPL. R. E. RIVERS MEDICINE	 2ND LT. R. W. RYAN VICTORIA
 SGT. EDWIN F. SANDERS UNIVERSITY COLLEGE	 LT. WM GEORGE S. SCOTT UNIVERSITY COLLEGE	

HONOUR ROLL



FLT.S. LT. J. E. SHARMAN
APPLIED SCIENCE



LIEUT. JEFFERY F. SMITH
TRINITY



LIEUT. GEOFFREY A. SNOW
UNIVERSITY COLLEGE



SGT. T. V. SPARLING
VICTORIA



L/CPL. G. S. STRATFORD
APPLIED SCIENCE



MAJ. E. R. STREET
UNIVERSITY COLLEGE



LT. A. F. R. W. SWINNERTON
APPLIED SCIENCE



2ND LT. R. E. TAYLOR
APPLIED SCIENCE



LIEUT. H. R. THOMSON
TRINITY



SPR. JOHN W. TRIBBLE
VICTORIA

HONOUR ROLL

 <p>GNR. GEORGE E. WAIN VICTORIA</p>	 <p>LIEUT. H. J. WATSON VICTORIA</p>	
 <p>CAPT. G. R. WEBER VICTORIA</p>	 <p>PTE. KENNETH WHITE VICTORIA</p>	 <p>PTE. MARK W. WILLIAMS UNIVERSITY COLLEGE</p>
 <p>GNR. JARDINE T. WILSON UNIVERSITY COLLEGE</p>	 <p>LIEUT. W. T. WILSON KNOX</p>	 <p>LIEUT. JOHN R. WOODS UNIVERSITY COLLEGE</p>
 <p>LIEUT. W. J. WRIGHT UNIVERSITY COLLEGE</p>	 <p>2ND LT. M. C. DEB. YOUNG TRINITY</p>	




HONOUR ROLL



Capt. Roswell Morris Burgess
Dentistry

William Lionel Charlton
Education

F.-Lt. Walter Gordon Coutts
Medicine

Lt. Stewart Cowan
University College

Capt. William Henderson
Trinity

Lt. E. P. Jensen
Agriculture

Charles Edmund Keemle
St. Michael's

L.-Cpl. Henry Drummond Lang
University College

Lt. John William McDowell
Medicine

Flt.-Cmdr. George Gordon MacLennan
Applied Science

Aubrey M. W. Patch
Agriculture

Norman Howard Pawley
Agriculture

2nd Lt. Douglas Gordon Scott
Applied Science

L.-Cpl. Chas. Hilton Stewart
Pharmacy

Gnr. W. Alex. D. Sutterby
Victoria

Capt. Frank Abbott Wood
Applied Science

ON THIS PAGE ARE INSCRIBED THE NAMES OF THOSE WHOSE PHOTOGRAPHS WERE NOT OBTAINABLE FOR THIS HONOUR ROLL OF THREE HUNDRED AND FORTY-SIX OF VARSITY'S SONS WHO GAVE THEIR LIVES IN THE DISCHARGE OF THEIR DUTY.

PRISONERS

Lt. C. Van Nostrand
University College

Capt. F. H. Wood
University College



Capt. H. R. Aird
Forestry



Lt. H. A. Barwick
University College



Lt. A. S. Bourinot
University College



Lt. H. E. Bridge
Trinity



2. Lt. J. Charlesworth
Trinity



Lt. A. H. Copeland
University College



Capt. R. Y. Cory
Applied Science



2. Lt. C. Glover
University College



Lt. G. E. D. Greene
Applied Science



Capt. W. R. Haight
Medicine



Pte. R. B. Hare
Medicine



2. Lt. A. Holmes
Wycliffe



Lt. I. Kert
University College



Pte. J. E. Lattimer
Agriculture



Lt. A. H. Lightbourn
University College



Capt. F. Macdonald
University College



Flt. Lt. H. S. Murton
University College



2. Lt. F. C. Noxon
University College



Cpl. C. E. Ogden
University College



Capt. F. S. Park
Medicine



Lt. J. B. Robinson
Trinity



Lt. A. W. Sime
Applied Science



Lt. C. Smythe
Applied Science



Lt. N. J. Taylor
University College



Pte. R. J. Thompson
Applied Science



Capt. F. M. Walker
Medicine



Pte. E. L. Wasson
University College

MISSING



Lt. G. A. Cockburn
Applied Science



Flt. S. Lt. A. Cuzner
University College

Flt. Lt. T. E. Morse
Agriculture



Lt. R. A. Forsyth
University College



Flt. S. Lt. W. Gould
Applied Science



Lt. M. G. Gunn
University College



Lt. H. A. T. Kennedy
Trinity



Lt. P. L. McGavin
Applied Science



S. Flt. Lt. J. Potvin
Victoria



Pte. L. Snyder
University College

No. 4 (University of Toronto) Canadian General Hospital

BY DR. C. K. CLARKE,
Dean of the Faculty of Medicine

THIS unit passed the greater part of its second year of service in the far East under conditions that were trying in the extreme. It has been well said that

Salorika possesses one of the worst climates in the world, and the University unit faced a second summer with a good deal of reluctance, although willing to make almost any sacrifice in the interests of the great cause. The nurses on whom the strain was greatest, suffered severely from diseases incident to the East, and when the Hospital was recalled in August, 1917, very few of the original members of the nursing staff remained, the great majority, as well as many of the medical staff, having been returned to "Blighty".

From the University point of view it is to be regretted that the vacancies made were not, in many instances, filled by University of Toronto representatives, the explanation being no doubt the difficulty of making transfers at such a distance. At all events, it is hoped that now the Hospital has been returned to England, the staff will once more become thoroughly representative of the University of Toronto.

Colonel J. A. Roberts, who was the first O.C. of the unit, returned to England in poor health in the latter part of 1916, and was succeeded by Colonel W. B. Hendry, whose absolute impartiality as referee on the football field is well known to almost every graduate of 'Varsity. Col. Roberts had a brilliant record and his distinguished services were acknowledged by the king, who gave him the rank of C.B. Colonel Hendry, who is immensely popular with all members of Hospital unit, has proved a worthy successor to Col. Roberts and has upheld the traditions of the University in every way possible.

The Canadian public will be gratified to learn that No. 4 unit has proved to be one of the best hospitals in the war, and was more than fortunate in having a

thorough equipment with which to carry on purely scientific work. This equipment was made possible by the generosity of those who contributed so freely to the fund raised by private subscription.

Had the hospital been called on to do a great amount of surgery, it had the men to meet the requirements. The same remark applies to the medical and purely scientific sides. It so happened that the medical, laboratory, x-ray, and dental departments had most to do, in fact established a most flattering reputation in the East, as their equipment of men and apparatus excelled that of most, if not all of the hospitals in that war zone.

In many ways the experience gained was invaluable to the teachers from the University as it gave them a new point of view and added to their knowledge of the diseases of the East. With a daily average of more than seven hundred patients, the staff was kept well occupied, indeed at times too much occupied.

From June 1916, to November of the same year, no less than 5,188 cases of malaria were observed and treated, and during the first year 17,682 patients were admitted—a more than creditable showing. The percentage of deaths was .005, a rate that is very small indeed.

In March 1917, 1,100 cases, chiefly medical, were in the Hospital—these patients for the great part suffering from malaria, black-water fever, pneumonia and rheumatism—also a small number from a mild type of diphtheria. It was at this time, too, that the dental department, which had earned the praise of most of the officers and tommies of the district, achieved the pinnacle of fame. The O.C. writing on March 9th, says: "Our dental department has come in for a good deal of praise latterly. Lieut. - Col. Gow was called a couple of weeks ago to see the King of Serbia, for whom he extracted several teeth and made a couple of dentures. This work greatly pleased the old King and as a re-



SECTION OF ALEXANDER'S ARCH



FRONT ENTRANCE OF U. OF T. HOSPITAL, SALONIKA

sult, this morning Col. Gow received the decoration of the "Order of the White Eagle"—fourth class; while Capt. Shields, who administered the anaesthetic for the extractions, was decorated with the 'Order of Savva', fifth class; and Corporal A. Smith, Privates T. O. Jones and A. W. Jones, each received medals of the Crown Prince's Household. This appears to be about the only trouble that the unit has got into lately."

By June 1917, the unit became restless as so many reports of its removal from Salonika were flying about, and one of the officers, writing to Dean Clarke, stated that there was "little or nothing to report; the people in England say definitely that we have left Salonika; I suppose they ought to know, but as a matter of fact the report is greatly exaggerated. We are still here, but I understand that we are to be sent home as soon as it gets safe to travel; this may be next week, or it may be next year—at any rate we are living in hopes".

Later in June the O.C. reported: "We are carrying on as usual and while many of the nurses look pretty well washed out, they are still very cheerful and optimistic, and seem to realize, as we all do, the difficulties in the way of getting back to England according to schedule. There is no particular change in the work that is now being carried on; we still maintain our daily average of from 1,200 to 1,400 patients, and there is of course a certain monotony of daily routine which cannot be avoided. My only anxiety at the present time is in connection with the health of the nurses. I am doing what I can to give them some variety in the matter of picnics, etc., and at the present time we are running a 'mixed doubles' tennis tournament which is arousing considerable interest and causing no small amount of amusement. We have three tennis courts which are in pretty good condition, and these are all occupied during the cool hours of the day. We also have an arrangement with the Nurses Convalescent Home, established in a very pretty spot in Salonika, by which we can send our nurses, one or two at a time, for a rest of a week or so, when they get run down, or fed up with the monotony of the existence here. This seems to be working very satisfactorily and we will carry on with it as long as we are here."

"We have got well into the summer now and the days are pretty hot, yet, fortunately, not so oppressively hot as those of this time last year, but something like the hottest days of summer at home. The nights, however, have been delightful and so far none of them have been bad enough to keep us from getting a comfortable night's rest."

During August, the unit still remained in Salonika and from the 18th to the 20th saw some exciting scenes. An officer writes: "You have doubtless had accounts of the fire in Salonika which burned from the 18th to the 20th instant inclusive, and then smouldered for a week after. All conditions were favorable for a fire—high winds for three days,



CHRISTMAS REVELS AT SALONIKA



CONSTRUCTING A LABORATORY HUT



GOLF LINKS AT SALONIKA

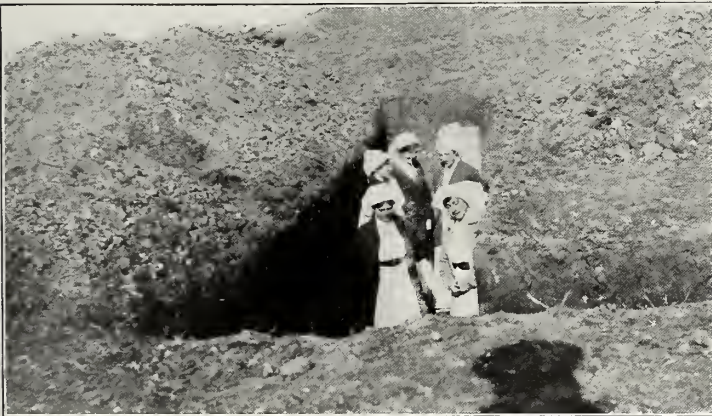


A GERMAN AEROPLANE CAPTURED AT SALONIKA

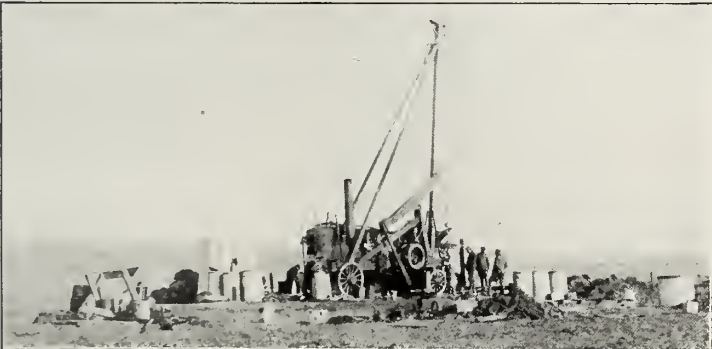
no fire protection, narrow winding streets, houses packed together, often overhanging the streets,—no rain for months. Just how much of Rome burned in Nero's presence I don't know, but I am sure he did not see anything more spectacular. There are over sixty thousand people homeless, eighty per cent. of whom are Jews. The excitement and confusion was great and there was some loss of life. Most of the business section and much of the residential part was quite destroyed. The loss was all civilian and not in any way military. From our camp, some five miles away we could see the flames plainly, and as some of us had duties in town we saw much at close range. X—and I had a real day on Sunday, the nineteenth, emptying a warehouse, clearing out a crowd of looters, and giving lessons in economy to a Greek boatman who wanted to overcharge us for bringing a bunch of refugees across



NURSE'S HUT AT SALONIKA



DUG-OUT REFUGE FOR NURSES DURING AIR RAIDS



WELL-BORING FOR HOSPITAL AT SALONIKA

were under treatment. As many of the original staff have been promoted and carried off to other hospitals it will be necessary for the University authorities to see that the existing vacancies, as well as the new positions made necessary by the enlargement of the Hospital, are filled by men who will preserve the University of Toronto spirit in the unit.



UNIVERSITY NURSES OFF TO THE FRONT

the bay. If the city can be rebuilt with some attempt at sanitation the fire will do good, but it has been burned before and lessons were of no avail".

Sometime in September the members of the unit began to reach England in dribbles, travelling by night, from Greece to an Italian port on account of the dangers from submarines. The nurses preceded the medical officers and all felt the strain of the long and tedious trip, but were delighted when Blighty was reached at last. Shortly after their arrival they were assigned to Basingstoke, Hants., one of the best of the medical hospitals in England. It was built for a hospital for the insane and is magnificently equipped with a duplicate "plant" for almost everything in the mechanical line. It will provide accommodation for more than two thousand patients and shortly after it was taken over, more than five hundred sick soldiers



ALEXANDER'S ARCH, SALONIKA



SIR EDMUND WALKER ACCEPTING CONNAUGHT LABORATORIES FOR THE UNIVERSITY

The War-Work of the Connaught and Antitoxin Laboratories, University of Toronto

J. G. FITZGERALD, DIRECTOR

SINCE the appearance of the last War Supplement of THE VARSITY, the facilities for national service in the Antitoxin Laboratory have been greatly increased and amplified by the completion of the New Connaught Laboratories at the University Farm. These laboratories

and the farm, were formally presented to the University by Colonel Albert Gooderham on October 25th, 1917, and at the same time were officially declared open by His Excellency the Governor-General.

During the past year the quantities of Tetanus Antitoxin prepared and supplied to the Department of Militia and Defence and the Canadian Red Cross have greatly increased. This entire output is for the use of the Canadian Expeditionary Force and of the Second British Army. A general order in France has recently specified the University of Toronto as one of the three sources from which satisfactory Tetanus Antitoxin is to be obtained. A very great distinction was thus conferred by the Army Medical Service in France on the Antitoxin

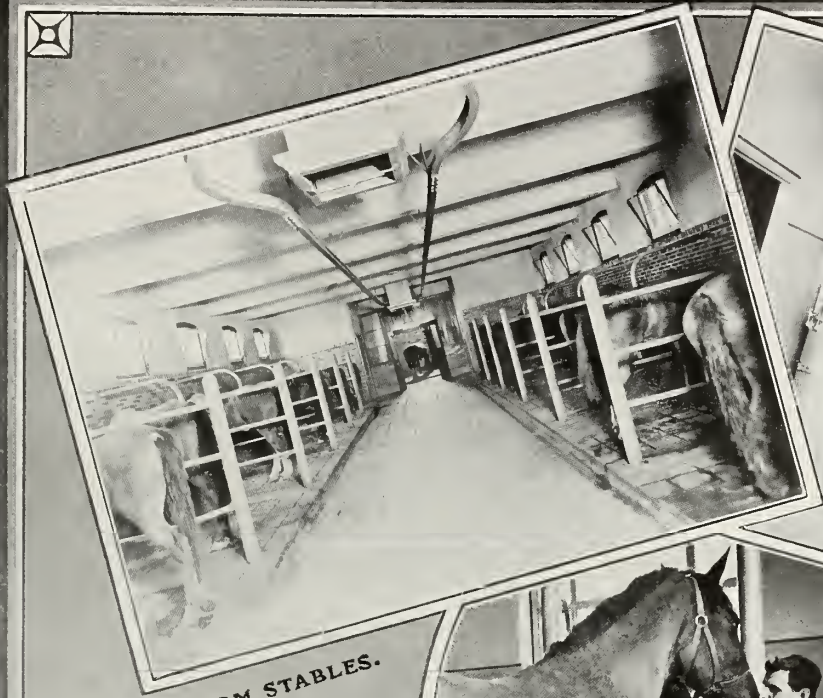
Laboratory. The very greatest credit for this splendid effort is due to Captain R. D. Defries, the assistant Director of the Laboratory, under whose immediate supervision this work has been done.

Recently laboratory tests of the Meningitis serum prepared by the Antitoxin Laboratory, have been conducted in one of the mobile laboratories in France. As a result the University of Toronto serum has been found to be extremely satisfactory and consequently the war office has ordered a large supply for its immediate use. Meningitis Serum prepared in this department is also being used with success in the C.E.F. in Canada.

The splendid endowment for research in the new Connaught Laboratories which was announced by Sir William Hearst on the day of the opening of the laboratories, has already enabled this department of the University to offer to undertake further work for the Department of Militia and Defence in connection with the infection of war wounds, and concentrate vigorously on war work.



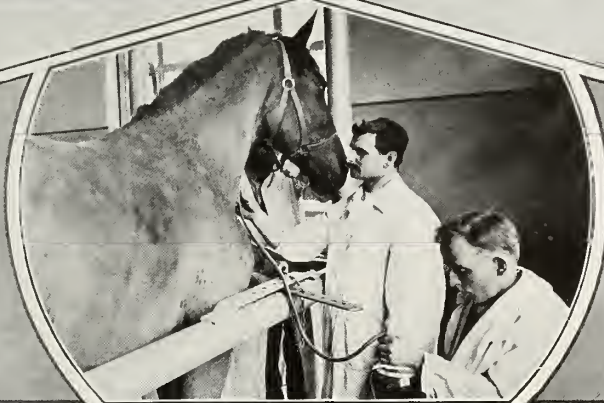
THE CONNAUGHT LABORATORIES



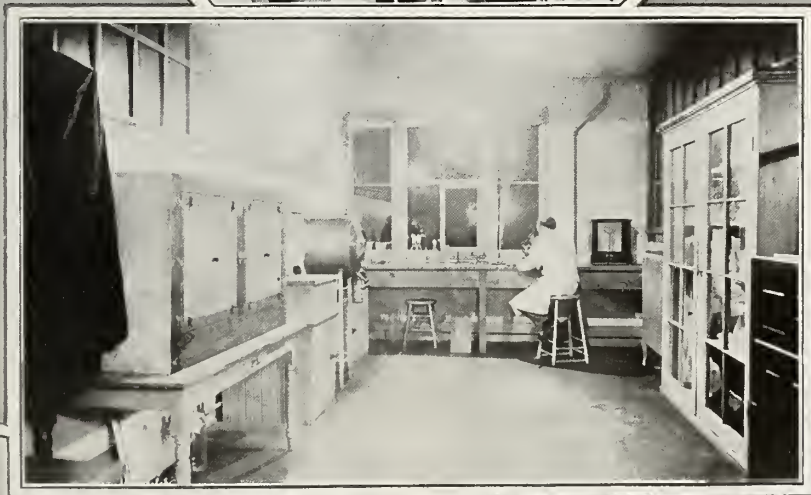
THE FARM STABLES.



FARM SUPERINTENDENT AT WORK.



BLEEDING A HORSE AT FARM.



TETANUS ROOM.



PROCESS OF ANTITOXIN CONCENTRATION.



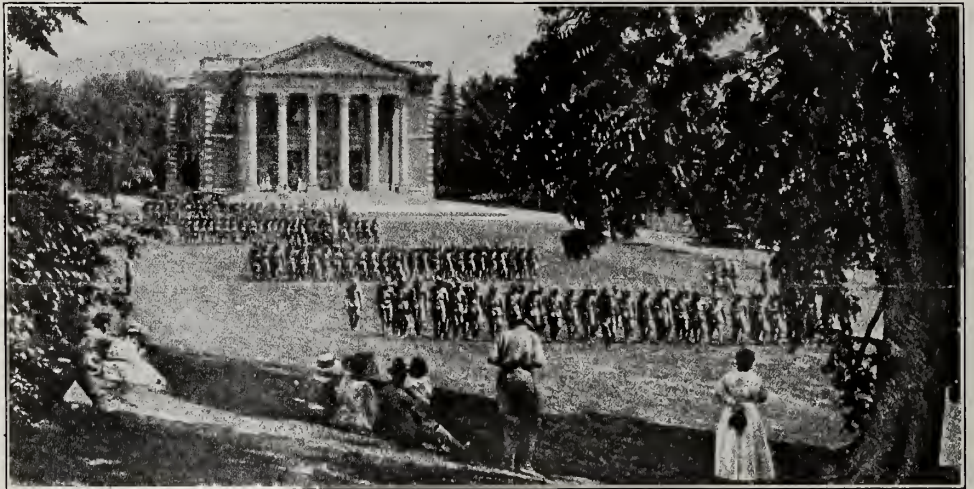
THE SHIPPING ROOM.

Canadian Officers at Universities and Colleges of the United States

THE entry of the United States of America into the war in the spring brought an immediate demand from the universities and colleges of that country for the services of experienced officers to take charge of the training and instruction of their students in military subjects. Several of the larger institutions had already been authorized to form contingents similar to our British and Canadian Officers' Training Corps, and the War Department had granted to these the services of regular officers to take charge of the instruction; but on the declaration of war these officers were in most cases withdrawn and university authorities had to look elsewhere for their instructors. Naturally their first thoughts were to obtain officers of the Canadian service with experience in France who had returned and were physically unfit for anything but home employment.

The demands for the services of such officers, made to Militia Headquarters, and, in many cases, direct to the President of the University of Toronto, immediately became very numerous, alike from the larger universities and the smaller

colleges. In most cases the qualifications asked for included a university training. The first officer to receive such an



STUDENTS DRILLING AT WILLIAM'S COLLEGE, U.S.A.

appointment was Lieutenant R. W. Hodder Williams, U. of T., C.O.T.C., formerly of the P.P.C.L.I., who gained the coveted Military Cross while serving with that unit.

The following is a list of the officers from the University of Toronto now employed at United States colleges, who in most cases, if of the rank of lieutenant, have been granted the local and temporary rank of captain while so serving:

UNIVERSITY OF COLUMBIA.

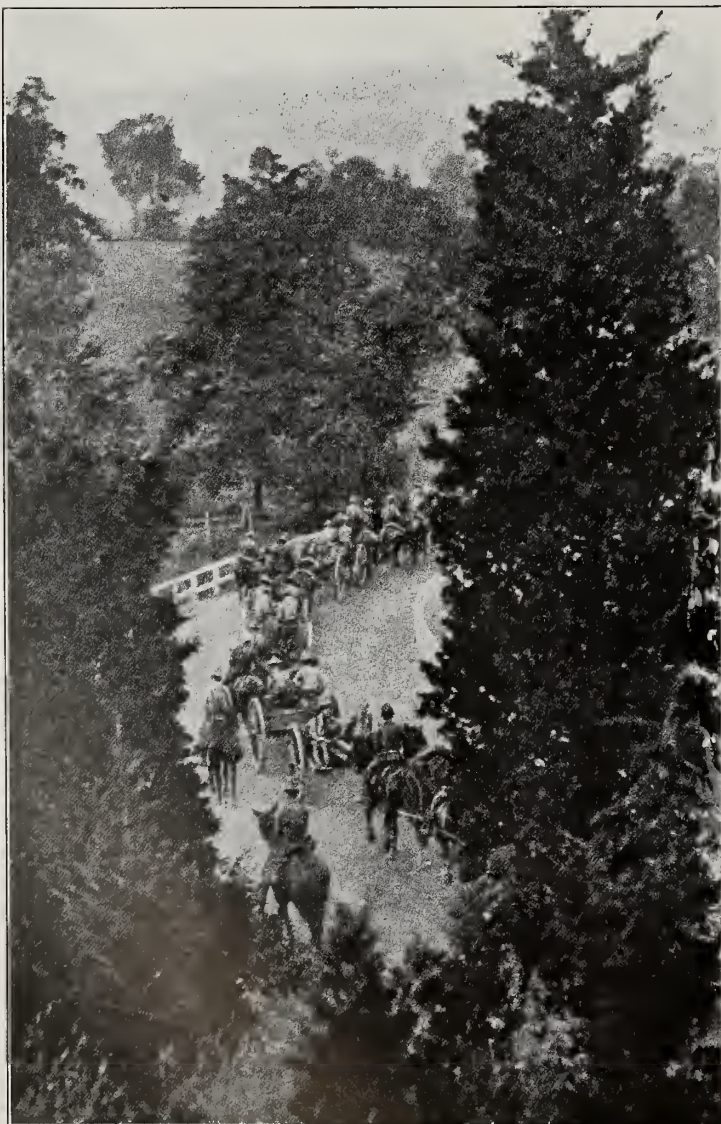
Lieutenant R. Hodder Williams, M.C., C.O.T.C.; was on the History staff of University and Victoria Colleges. He enlisted as a private in the 2nd Universities Company, P.P.C.L.I., being promoted to corporal, and then sergeant. He received his commission in the 3rd Battalion, Welsh Regiment (Imperials). He served on the staff of the "Canadian Eye Witness", but left that to rejoin the P.P.C.L.I. He was wounded in September 1916, and was awarded the Military Cross in November. He returned to Canada on duty April 1917, and proceeded to the United States to take charge of the University of Columbia Officers' Training Corps in May of this year.

YALE UNIVERSITY.

Lieutenant Raymond Massey, 9th Battery, C.F.A.; Victoria College, 1918. He took the artillery course at Kingston and was attached to the 30th Battery, C.E.F., going overseas with a draft and being posted to the 13th Battery in France. He was slightly wounded in May, and shell-shocked in June 1916, shortly afterwards returning to Canada on sick leave. He served on the Instructional Staff of the Machine Gun Depot in this district, prior to going as Machine-Gun Instructor to Princeton University, from where he transferred to Yale.

YALE UNIVERSITY.

Lieutenant Alan Bland, 9th Battery, C.F.A.; graduated from the Ontario Agricultural College, Guelph, in 1913. He enlisted as a gunner in December 1914, and served on the Headquarters Staff, 4th Brigade, C.F.A., proceeding overseas in May, 1915, and to France in September 1915. In January 1916 he transferred to a trench mortar battery and was promoted sergeant, and later given acting warrant rank. He was granted his commission on February 19th, 1916, and invalided to England with trench fever in May of that year, being shortly afterwards returned to Canada where he served



WEST POINT CADETS IN THE CATSKILL MOUNTAINS



THE STATUE OF LIBERTY, NEW YORK HARBOUR



AMERICAN TROOPS CROSSING OVER WESTMINSTER BRIDGE, LONDON

on the instructional staff, R.S.A., Kingston. Prior to going to Yale he was for a short time instructor in artillery at the Massachusetts Institute of Technology.

SOUTHERN METHODIST UNIVERSITY,
DALLAS, TEXAS.

Lieutenant E. H. Saer, 12th York Rangers and C.F.A.; an Arts student of Trinity College, 1916, was at first with the 35th Infantry Battalion as lieutenant. In November 1915, he transferred to the C.F.A. Reserve and later to the 22nd Battery. He was wounded in August 1916.

NORTHWESTERN UNIVERSITY,
EVANSTOWN, ILL.

Lieutenant W. W. Lang, General List, C.M.; was a student in Arts at Victoria College of the Class of 1918. He joined the R.F.C. and was in hospital May 1916, following a crash, but returned to duty, being seriously injured again in February 1917.

CORNELL COLLEGE, MOUNT VERNON,
IOWA.

Lieutenant W. N. MacQueen, General List, C.M.; is a B.A. of University College, 1912, and also attended Knox. He was originally an honorary captain in the Y.M.C.A., attached to the 39th Infantry Battalion, and transferred in February 1916 to the infantry with rank of lieutenant going later to France to join the 21st Battalion. He was wounded on September 15th, 1916, and returned to Canada for further medical treatment.

NEW MEXICO MILITARY INSTITUTE,
ROSWELL, N.M.

Lieutenant S. N. Dixon, C.O.T.C., was a student in Theology at Trinity College. He went overseas and served in France with the 58th (Brantford) Battalion, C.E.F.

PHILLIPS ACADEMY, ANDOVER, MASS.

Major R. N. Davy, Lieutenant 31st (B.C.) Horse; graduated from Trinity College in 1905, and took his M.A. degree in 1906. He went overseas with the 225th Battalion, C.E.F.

We shall never sheathe the sword until Belgium recovers in full measure all, and more than all, that she has sacrificed, until France is adequately secured against the menace of aggression, until the rights of the smaller nationalities of Europe are placed upon an unassailable foundation, and until the military domination of Prussia is wholly and finally destroyed.—*Asquith.*

The day has come when America is privileged to spend her blood and her might for the principles that gave her birth and happiness and the peace which she has treasured.—*President Wilson.*

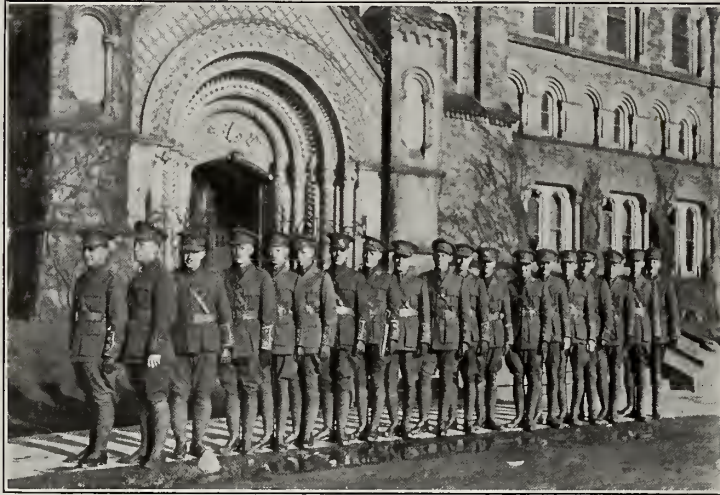
The Training of Overseas Forces in the University Buildings

THE University of Toronto has always been ready to extend to the military authorities any assistance which might facilitate the training of troops. Particularly have the buildings and grounds been of use to the Royal Flying Corps and to the School of Infantry, the staff of which is at present at Niagara-on-the-Lake, under Lieut.-Col. A. D. LePan, C.O.T.C., in charge of the Polish Concentration Camp there. Pending the return of these officers, most of whom are on the staff of the University, Major G. N. Bramfitt, C.O.T.C., is in charge of a Training Depôt for non-commissioned officers to supply these ranks to Depôt Battalions, and to which the University gives lecture rooms, parade grounds and quarters. The North Residence for students in Devonshire Place now provides sleeping accommodation and offices for this unit. In close proximity to the campus, which is used as a

parade ground, Examination Hall provides ample space for messing. The Militia Department has constructed a kitchen against the west wall of the building and provides the necessary gas and water; the University lends the building and keeps it heated.

As accommodation for lectures is difficult to obtain in most training camps, the Training Depôt is particularly fortunate in having placed at its disposal lecture rooms in the Medical Building, large enough to receive its entire number. Although the work of the caretakers must thereby be considerably increased, no charge is made by the University for this concession.

It is highly appropriate that the instructional work in the district should be carried on in the University Buildings, a privilege greatly appreciated by all now in training there.



TRAINING OFFICERS AT UNIVERSITY



SQUAD OF OFFICERS IN TRAINING



HEADQUARTERS OF MILITARY DISTRICT No. 2

Home!

By R. UTLEY, On Active Service

Faculty of Applied Science

I can see the rocks a-gleaming
 In the morning, in the sunlight,
 Coldly, grimly—but majestic—
 Standing out against the sky.
 I can see the jack-pine valleys
 Dark-green bands athwart the landscape:
 I can smell the pungent fragrance
 Of the woods that never die.
 I can see the lakes a-nestling,
 (Silver rifts in that grey rock-mass)
 In the little cup-shaped hollows
 Where eternal peace does lie.

I can see the snowflakes sifting
 Through the rushes by the river.
 I can hear the howl of grey wolf,
 And the heron's plaintive cry.

From this land of rain—and ruins,
 Mud—and madmen clad in khaki,
 Peasant folk whose lives and customs
 Seem to me all dead and dry,
 I can hear my Northland calling—
 Lake and river—rock and forest—
 For 'tis 'Xmas in my Northland.
 And 'tis there my heart doth lie.



The Balfour Convocation

BY PROFESSOR D. R. KEYS

ABOUT twenty years ago the late Dr. David Irons, M.A., (St. Andrews) visited Toronto, with letters to Professor Goldwin Smith and the writer. The most brilliant man of his year (1892), at St. Andrews, he had won the Ferguson scholarship against all Scotland, and taken the extraordinary course of coming to Cornell to pursue the study of philosophy. It was supposed to be the first case of the kind on record. His talk was full of charm and centred mainly on two subjects: golf and Mr. Balfour. Indeed it was rather difficult to decide whether his almost passionate admiration for the rising hope of the Liberal-Conservatives was not based as much on the Scottish laird's skill with the clubs as on his power over an audience and his marvellous intellectual dexterity. The general impression left by the eulogy of the far-seeing young Scot was a corrective to the somewhat different idea that most people in our country had of the "nephew of his uncle". Irons did not live long enough to carry out his purpose of teaching his people the truth about America, but he taught some of us the truth about Mr. Balfour, as the gentleman himself has taught it to all those who came within the range of his voice. "In the work of building up a perfected humanity, every one may bear a part. None indeed can do much, yet all may do something". So wrote the critic of positivism in 1888 (Balfour, *Essays and Addresses*, p. 301), in a paragraph resplendent with power of thought and beauty of expression. And now Mr. Balfour in his turn has come to America to win the hearts of his hearers as he has impressed the minds of our governors. In the meetings at Washington no one, we have heard, was listened to with such attention, no one showed such know-

ledge of the subjects he discussed, no one had such weight in its decisions as he. It was feared at one time that the crisis in the affairs of the Allies would prevent Mr. Balfour from coming to Canada. He has himself seen how serious is the situation here, and can understand from the warmth of his reception how keen would have been the disappointment if he had failed to come.

Owing to the lateness of his arrival on Friday the Convocation was postponed till Saturday afternoon, May 26th, at half-past three. The weather was favourable, the crowd great and enthusiastic. As the assembly of notables in the East Hall watched the ticket-holders, it was estimated that at least two thousand were lined up in a column that reached from the door of the Hall to Knox College. The yeoman bedel never led a more distinguished procession across the lawn. Within the Hall the bursar, Mr. Mouré, performed on the organ a selection made with his usual care and working up to a climax in Elgar's Imperial March, to the strains of which the procession advanced to the dais. There was a rustling of silken hoods and gowns as the dignitaries took their seats upon the crowded platform and in the two side sections which had been left free to provide for the overflow. The music ceased, the Chancellor made a sign to the President, on his left, who rose, followed after a moment's hesitation by the great English leader, who was greeted with an outburst of applause. President Falconer then made the address of presentation, the text of which follows:

"Mr. Chancellor: I have the distinguished privilege of presenting to you for the degree of Doctor of Laws, *honoris causa*, the Right Honourable Arthur James Balfour, Secretary

of State for Foreign Affairs. Mr. Balfour has played so many parts and has played them with such consummate success, that I may perhaps venture to say that though he is a member of that elect circle who hold the Order of Merit, he has by his versatility and attainment given especial significance to such an order. University graduates esteem him as having shed lustre upon their confraternity, though he did once say that 'at Cambridge he found attendance at ordinary lectures a somewhat irksome and ineffectual means of increasing human knowledge'. They remember, however, that he was a favourite pupil and later an intimate friend of Henry Sidgwick, and that he turns from the cares of State to seek refreshment in the calm of philosophy, though true to his spirit of philosophic doubt he half inclines to the world's opinion, when he chaffs the metaphysicians as being a strange folk 'gently quarrelling with each other in an unknown tongue'. Was it from true sympathy or irony that Mr. Balfour wrote *Foundations of Belief* and *'Humanism and Theism'* in his leisure moments? None of those who read these books carefully can fail to perceive that they are pervaded by sympathy with the philosopher. Whether addressing the scientists of the world at the great Darwin celebration in Cambridge, or giving a lead to the deliberations of the Conference of the Universities of the Empire, or granting degrees as Chancellor of the University of Edinburgh, Mr. Balfour is accepted by university constituencies as their worthy representative.

"But to the world at large Mr. Balfour is known for having performed with distinction the duties of the greatest offices in the State. He is one of those fortunate men whose career has been equally brilliant in initial promise and in full accomplishment. Though he had at his disposal through inheritance most powerful influences, he himself has earned the respect of the British people by his sheer ability, his calm judgment, his fearless action in the hardest tasks and his personal charm.

"But in his forty years of public service perhaps no one act has been pregnant with greater issues than the mission to the United States of America, which he has just brought to a conclusion; not only did he contribute of his wisdom and experience to the solution of the immediate problems of that country occasioned by the war, but having also caught the imagination of the American people as no other Briton has ever done, he has in his person re-united in sympathy in a wonderful way the English-speaking nations and has established more securely the Western civilisation of which he is so perfect an ambassador.

"These are but a few of the reasons why Mr. Balfour is worthy of the highest honour that we can bestow upon him."

Having received the degree, Mr. Balfour replied as follows: "Mr. Chancellor, Mr. President, Ladies and Gentlemen: It would at any time and in any circumstances be a very great honour to receive a degree from this University. It is I am told, and I well believe it, the largest University in the British Empire. It carries on to a degree therefore unparalleled elsewhere the great work of training the future rulers of industry, of politics, of literature and of learning. That such a body should grant a countryman from overseas the honour of a degree is one which would always claim his deepest recognition and his warmest gratitude. The President has added, if possible, to the intrinsic value of the honour in the speech in which he has just recommended me to the Chancellor for the conferring of the degree.

"He has referred in terms far too laudatory to the mission

just brought to a conclusion in the United States. I will say nothing upon that subject except this one thing. In my view, a view which I have held ever since I held any view upon international politics, there never were two nations better fitted to understand each other than the Republic of the United States and the British Empire—(applause)—and there never were two States whose grounds of agreement were more surely or more deeply founded in the historic past; whose causes of difference, where they have existed, have been superficial; where the causes of sympathy have been more profound and irremovable. If I have assisted, even in the smallest degree, to make that great fundamental truth apparent to all men speaking the English language, fol-



TORONTO WELCOMES MR. BALFOUR

lowing laws based upon the British laws, employing and adding to British literature—if, I say, I have done anything, even of the smallest degree, to aid that comprehension, intended by nature from the first, I have reason to congratulate myself more deeply, more profoundly, than upon any other action of my public life.

"When I turn indeed, ladies and gentlemen, from the observations made by the President to the more academic side of my public career, I am not sure that I have equal reason to congratulate myself. He appears to have studied my works with great attention—(laughter)—and to have extracted from them one or two observations which I by no means feel disposed to withdraw, but which I did not wish placed before such an audience under the limelight of public criticism.

"It is quite true that I did not think that lectures were

always the best and most abundant source from which the spring of learning flows. I think I noticed as your President read the extract from the essay in question (or was it a speech?—I forget) that he laid rather unkind emphasis on the word 'Cambridge'. I can assure him that my observations applied just as much to Oxford as to Cambridge—(applause and laughter)—and, unless I am greatly mistaken, just as much to Toronto as to Oxford.

"One thing I say with confidence, I may have lapsed in an erring moment into the observation to which your attention has been drawn, but the most hostile critic may examine everything I have written and everything I have said from beginning to end with the minutest care and he will not find one observation which suggests that I do not regard universities as a great civilizing influence of any community in which they flourish.

"I am a profound believer in university education. I believe in it, not merely nor solely, nor even chiefly, because it is possible to acquire at universities a great deal of knowledge of one kind or another which may be essential and useful in later years of life. Of course that is true, and of course that is one of the great reasons that universities exist; but universities have done much more than provide machinery for imparting learning. They have been the means of not merely uplifting man, but of forming and creating character. In that great work it is not merely the official teachers—sometimes I think that the official teachers contribute, except indirectly, perhaps, less than the fellow-students, the men with whom as learners we are thrown into constant collision day by day. That is as great a source, believe me, in training and education as anything which books or lectures or examinations can possibly offer.

"Let any man—I am now addressing the older members of the audience, who, like myself, look back upon their university experience as a far-distant but happy memory—let any of those look back upon what they most valued in university life and they will find it will be the personal intercourse with teachers or pupils, with the lecturer or the students; it will be the action and reaction of mind on mind, the influence of a common life, the joy of common memories, the feeling of brotherhood in a great institution to which he once belonged and still belongs, a famous institution in whose triumphs he shares, and whose future he believes and hopes will add greatly to the glory of his own country and the heritage of mankind.

"Ladies and gentlemen, it may perhaps seem to you that this is hardly the moment in which to allow one's thoughts to play freely upon the joys and benefits of academic life. The University of Toronto, like Oxford, like Cambridge, like Edinburgh, Glasgow, like every university in this British Empire, has suffered sorely from the war. Your lecture rooms are emptied, young members of the staff themselves are serving at the front, and a vast number of these are risking their lives, and, as we all know, too many of them have already sacrificed their lives.

"The indignation which I feel and which I believe to be shared by all of you against those who are responsible for the state of things in which young men in the prime and promise of their lives, the future leaders of thought, of industry, the future leaders and statesmen of their country, are cut off even before they have been able to show the full flower of the performance of their life—my indignation rebels against this as perhaps the greatest of the many great crimes which have taken place. We cannot help feeling appalled at what has occurred and in what is daily occurring at the front, not only adding to the suffering and bereavement, but the free progress of the race is hampered and throttled by losing so many of these youngest and best men. It is best that I put that thought away from me, as I believe fundamentally erroneous.

"I saw just now the honoured roll of those belonging to the University of Toronto who have already perished in the war. I refuse to think, I don't think, that they have perished in vain. I don't merely mean that their efforts as soldiers or as doctors or whatever they may be—I don't merely mean that they have helped, and we recognize they have helped, to bring a victory to the Allies which means in the long run victory to civilization. I mean something deeper and profounder, something more intimately connected with the life of this University. Believe me, the sacrifice made by these young men, with all life before them, is not merely service to their country and to the world, it is direct service to the university which they have left for more dangerous and perilous methods of doing their duty in that station in the Empire to which they have been called.

"And the reason I think so is that there is a common life belonging to every great institution, and above all to every great university which goes on continually from generation to generation, which knows no break, which is the very ideal of earthly immortality. Now when the future generations come to this great seat of learning in order to equip themselves for the struggle in life which is before them, do not doubt that they will get inspiration by looking at that list of immortal heroes; that they will feel that the University which they have attended is no mere organization for imparting useful information, but that in its life it has done glorious and heroic things, and if the need should again come upon the country which it serves, the need will again be satisfied with equal courage, equal patriotism, and equal devotion to public duty.

"Mr. Chancellor, ladies and gentlemen, to belong to such a body, to see the results of so much that the University has done in the past and what it is doing and is prepared to do, makes me feel that I am now a member of a body which has in it the promise of much in the future, and to feel one is rendered illustrious by the sacrifices of this great crisis of world-history makes this one of the proudest moments of my life.

"Mr. Chancellor, ladies and gentlemen, I most warmly thank you for the manner in which you have received me, and I most heartily give of my gratitude to the authorities of this



MR. BALFOUR AT THE UNIVERSITY

University who have thought me not unworthy of the highest honour it is in their power to bestow."

After the applause and the spontaneous burst of 'cheers which followed it had died away, Chancellor Meredith arose and pronounced the classic formula "Convocatio dimissa est". The organist played and the audience sang "God Save the King", and the procession moved slowly out of the hall, while the audience again gave vent to their feelings in renewed cheering. To the last the new graduate bended his looks on the friendly faces which smiled back at him from all parts of the great octagonal chamber.

To the *honoris causa* of the Senate, the University convocation was ready to add *favoris et amoris causa*. Never

was good feeling more abundantly shown nor more evidently reciprocated. And some of us as we walked away recalled

the youthful enthusiasm of David Irons and wished that all Toronto's graduates had been able to witness that historic scene. One colleague, not a Scotchman, confessed that he found in Mr. Balfour's face a benediction and in his words the incitement to a higher life. Another has taken all his works out of the Library, and intends subscribing to the *London Morning Post* which prints Mr. Balfour's speeches in full. Let us hope that our youngest graduate may live long enough to return

after the war and perhaps give a course of Marfleet lectures on how he healed the schism in the Anglo-Saxon race.



MR. BALFOUR ADDRESSING CONVOCATION



AMERICAN AVIATORS TRAINING AT OXFORD UNIVERSITY

Canadian Officers' Training Corps, 1917

THE work of the Toronto Officers' Training Corps, at the beginning of the war is familiar to most members of the University. Large numbers profited by the initial training received in its ranks, and have brought credit to the unit and to the institution which raised it.

The academic year 1916-17 found the Corps in a greatly depleted condition. Its officers were nearly all either overseas or employed on military duty at home, and the vast proportion of the rank and file were with the colours on one or other of the many fronts. An effort was made to keep the torch burning, however. The Corps carried on preliminary training throughout the session and the familiar badge could be seen on the campus nearly every afternoon.

This year has inaugurated a new era in the history of military training at the University. The influence of recent events has awakened us to the fact that conscription is really a democratic measure and serves to make that real equality of service and sacrifice which should be at the foundation of every truly democratic state. It was proper that the University should take her share in the leadership of the country in this regard, so military training for all male undergraduates was made compulsory, a department of military studies organized, and Lieut.-Col. W. R. Lang asked to assume its direction. Colonel Lang has been serving since the outbreak of war on the General Staff of Military District No. 2, is a highly qualified officer with over a quarter of a century's experience in the Imperial and Canadian services and has been the leading spirit in military enterprise at Varsity since 1900. As the military training of troops in a district, including that of the C.O.T.C. contingents, is under the General Staff his supervision of this work in the University ensures close co-operation between the military and the academic authorities.

Militia Headquarters has cancelled the annual grants for C.O.T.C. training 1917-18, in accordance with the policy of concentrating all effort directly on the great task which confronts the Allies in Flanders and in France. Nevertheless the machinery of the contingent is being utilized in full measure in the conduct of the military training which now has its place on the University curriculum, and to

all intents and purposes the C.O.T.C. is carrying on as before.

Every male undergraduate has been subjected to a medical examination and if found fit has been attested in the C.O.T.C. If unfit, he has been detailed for instruction in the Department of Physical Training, which will aid him in his efforts to rid himself of whatever disability he may have. Those men who have "passed the doctor" and who are not conscientious objectors (as yet none of this genus has appeared) are divided into three classes based on a division of faculties and colleges, each under the command of an officer permanently employed on military duty in this district.

The actual instruction this year differs considerably from that given in previous years. The curriculum leading to Certificate "A" is not being followed, and the efforts of instructors are being concentrated on such departments of military instruction as barrack square drill, for the purpose of inculcating discipline and smartness, and physical and bayonet training which is of great value as a "setting up" exercise. This work is carried out under the immediate supervision of Capt. A. B. Blake-Forster, late of the 3rd Battalion, C.E.F., who is dividing the work of Acting-Adjutant of the C.O.T.C. with Lieut. T. A. Reed. The actual instruction is in the hands of eleven highly qualified instructors on the strength of the Canadian Army



COLONEL LANG, OFFICER COMMANDING C.O.T.C.

Gymnastic Staff.

Compulsory training, we hope, is with us permanently, and the C.O.T.C., whether as the medium for compulsory training or for training of a volunteer nature, has come

to stay. Any sceptic as to the advantages of such an institution need only see the work being performed on the campus each afternoon from four o'clock on to become convinced that the C.O.T.C. and the idea behind it are amply justified by results.

As this edition goes to press announcement is made that Lt.-Col. Lang has been promoted to full Colonel. All ranks of the C.O.T.C. join in expressing their pleasure at this well-deserved promotion for their Commanding Officer.

Col. Lang has been associated with military work from his student days at Glasgow University, and has the gift of winning both the confidence and esteem of those under his command.



C.O.T.C. BATTALION DRILL ON UNIVERSITY CAMPUS

University of Toronto Overseas Training Company

BY CAPT. M. W. WALLACE

THE present strength of the Company (December 21st, 1917) is 218. The following statistics will give in outline an idea of the extent of our contribution to the fighting forces of the Empire.

Hamilton. Twenty more are about to serve in a similar capacity as Instructors in Bayonet Fighting and Physical Training. Fourteen are on probation with the Royal Flying Corps as Equipment Officers.



U. OF T. OVERSEAS TRAINING COMPANY AT BAYONET PRACTICE

Candidates for Imperial Commissions sent from C.O.T.C. before Overseas Training Company was authorized	85
Candidates for Imperial Commissions from Company	202
Commissions in the Royal Naval Air Service ..	39
Commissions in the Royal Flying Corps	60
Commissions in the Canadian Expeditionary Force	16

Transferred to other C.E.F. units as N.C. O's. 17
 Transferred to other C.E.F. units as Privates 13
 Discharged as medically unfit 16
 Deceased 1

Of the men at present on our strength 36 have been accepted by General Gwatkin as the Eleventh Draft for Imperial Commissions. They will proceed overseas in the near future. Twenty-five men are acting temporarily as Musketry Instructors in the Central Ontario Regiments at Exhibition Camp and

We have taken on our strength only University men or those who have at least passed the Matriculation Examination. Many of them had had no previous military training; many of them had spent a short time in the C.O.T.C. or other militia unit; a few had already secured their lieutenant's certificate. The great majority have been graduates or undergraduates of the University of Toronto, but we have enlisted men from the other Canadian Universities and from England, Scotland, Ireland, France, The United States, New

Zealand, Australia, South Africa, Bermuda, Bahama Islands, South America, Guatemala, Hawaii, and Newfoundland. On leaving the Company they have received commissions in all arms of the service—chiefly in Infantry, Artillery, Aviation and Engineers, and are now serving in England, France, Belgium, Italy, Egypt, Macedonia, Mesopotamia and India.

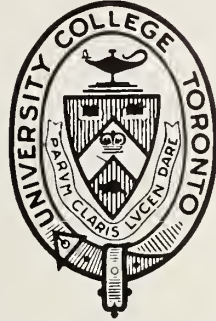
The work of the Company under the Military Service Act is not yet very clearly defined but a letter from General Gwatkin, C.G.S., Canada, has described our function



CAPT. M. W. WALLACE, LIEUT. COL. A. D. LEPAN, LIEUT.-COL. W. R. LANG AND MAJOR G. H. NEEDLER, WITH DRAFT FOR IMPERIAL COMMISSIONS

University College

BY PRINCIPAL HUTTON



THE local habitation alike and the name of University College and its functions are confused and the cause of confusion in the minds of the public. It is a popular delusion that the College is identical with the University; it never was so identical even before University Confederation. In the old days the College was the teaching and the University was the examining body, and the model on the whole was the University of London in this respect. Since Confederation the College is the complementary teaching body to the University; the State is prepared to teach the whole curriculum; but whereas it teaches the new and expensive sciences, chemistry, biology and physics through a new teaching body the University professoriate, it teaches most of the old subjects, ancient and modern languages and ethics, through the older body, the staff of University College.

Further since Confederation has brought into the University system the denominational colleges of Victoria and Trinity, and since these colleges prefer to remain in real touch with ordinary students and have no wish to become merely theological seminaries, these colleges also teach the old subjects which require no expensive laboratories; and so far the teaching staff is duplicated, triplicated, and even—by the recent progress of St. Michael's College—quadruplicated; while the University conducts the expensive laboratories for the students of all the four colleges in common. Broadly this distinction is between the humanities and sciences, though accidentally by that indifference to logic, which is the strength and weakness of the British mind, history with us belongs to the University, as well as the old and neutral subject of mathematics.

So far the system is closely akin to that of present-day Oxford and Cambridge where the same financial pressure has produced the same division of labour, and the Colleges severally teach the humanities while the University gathers them all into the same joint laboratories; the only difference being that all the colleges there are private and originally ecclesiastical foundations, while with us the State maintains its freedom of teaching, by maintaining its own humanistic college.

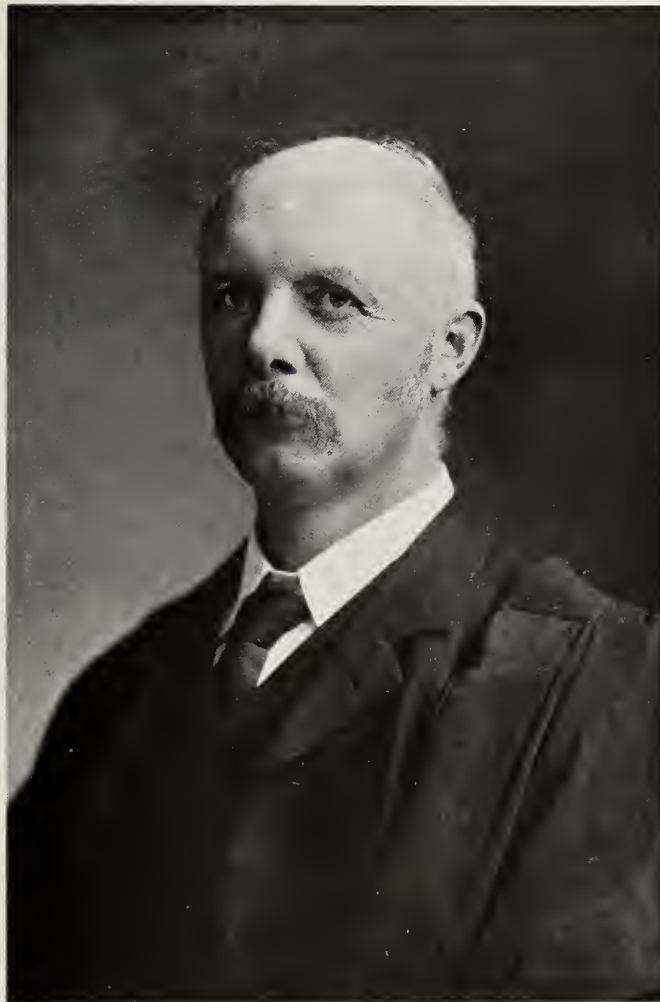
As it has been difficult to maintain the separateness of the functions of College and University in the minds of the public so also with the buildings. University College is the original building; the main block of buildings on the campus with eastern and western wings; from these buildings the

sciences have gradually emigrated to separate blocks of their own; but the articulation of the system is not yet complete and in particular administration—the offices of Bursar, Registrar and President—still occupy large portions of the College and cause it to be generally known to the outsider merely as the Main Building; the west wing in particular, though part of the original College, has now only a few rooms devoted to College work; the Students Residence originally there has ceased to exist there and has not at present been revived elsewhere on a better scale.

The war has played material havoc with University College

as with the others, and as with the colleges in the mother land; and if in a less degree than in Great Britain still only less proportionately to our distance from the trenches and a certain natural spice of "Americanism" in us, now rapidly disappearing even in its original home the United States, and finding its last ditch in the Province of Quebec; Monsieur Henri Bourassa is the last of the Americans; the "Americanism" which meant the dualism of creation and the separation of civilized man, not only into body and soul, but into two separate and exclusive habitats, America and Europe; between which there was a great gulf fixed to continue for ever; but nothing continues for ever, at least no physical boundary, where man is using the weapons of his own brains and modern science to subdue and dominate nature.

A measure of this havoc played by the war in the attendance at University College may be found in various directions; thus, *e.g.*, before the war the proportion of women students to men though increasing was not above twenty-five per cent.; this year for the first time the women are in a large majority of something like 65 per cent., and here is another sign, salient, glaring even to exaggeration perhaps, yet covering a substantial



PRINCIPAL HUTTON

truth; a class in Greek which before the war used to number some dozen men contains to-day one Canadian (twice rejected for military service), one Chinaman, one Japanese and one woman; if it were not for these alien nationalities (not enemy alien; we have none), some classes would be much smaller; there are many Jews, *e.g.*, in the College, and there are others much nearer to the British and Canadian type than some of the Jews and yet not quite sufficiently Canadian yet or British to enlist in a body. By this means the number of male students in some University classes remains still considerable.

But there is another side to the picture of empty rooms or conflicting ideals or semi-alien faces; before the war, indepen-

dent members of the University, men not obsessed with the academic interest in lectures, but with a broader outlook on life, used to protest vehemently from time to time: "why are there", they asked, "so many young fellows of wretched physique about, so few who stand up, so few who have the chance

Europe, the affection kindled for the Empire and the disappearance of the narrow Canadianism which was an inheritance from the Americanism across the border, and like the Americanism, was soured morally by crude arrogance and ignorance, and spoilt artistically by want of breadth and perspective.

Our soldier-students have taught the world that the Canadian, including the student, has an initiative and a determination which makes him as valuable as the best professional soldier, and they have taught their old teachers, the lesson that should not have been necessary perhaps and yet comes as a slight shock sometimes to the academic mind, that a man may be helpless, almost imbecile in the presence of Greek or French, of Latin or German, even of algebra or biology, and yet ready to discharge the whole duty of man without hesitation, and to offer his life gaily and patiently with cheerful persistence and dogged good humour, for the maintenance of British



UNIVERSITY COLLEGE

to stand up, even when they have the will and the power? You professors have no regard for their health and strength or for the medical profession, and the medical professors are the worst of all, and flout their profession most"; and so we used to have council meetings and proposals for compulsory athletics; and all the violent controversies which the war has raised, all the old fetishes about liberty and the rights of the subject and the wickedness of coercion opened their sleepy eyes in our council chamber with anticipatory scowls; it has taken the war and its horrors to overcome these bogies and to introduce compulsory physical exercise and some regard for physical health into the programme of our "intellectuals", whether students or professors; and this is of course only the lower and more material side of the change; the spiritual side is the wider outlook on life, the enlarged sympathy with

civilization and for the peace of the women and children of Canada, and of those old men, who at the University and elsewhere, seemed often to him so unintelligent (because so intellectual), and so very tedious. The biographers of that very violent young man—he was always young in mind—Paul Deroulède have observed "Je préfère au génie la confiance dans la vie"; our soldier-students have shown that same confidence in life and life's instincts; to-day any dull man, even a professor, can recognize how much more precious a thing it has been for Canada and the University than intellect, even than genius.

The number of University College men who are known to have enlisted for military service at the front up to December is 1053, and the number of those who have already fallen is 98.

University of Toronto Overseas Training Company

(Continued from page 64)

in the future as being primarily to furnish reinforcements to some infantry unit (perhaps the Princess Patricia's Canadian Light Infantry), secondly to furnish N.C.O.'s. and musketry instructors to the Canadian Forces, and thirdly to continue sending a limited number of our best men for Imperial Commissions.

The list of casualties and honours to December 21st, 1917, is given below:

Killed in Action—C. R. Sloan, Claude Norie-Miller, W. W. Cotton, R. S. Bennie, F. J. Foster, F. W. Curtis, W. J. Beattie.

Missing—Lorne Snyder, J. W. Fleming.

Prisoners of War—N. J. Taylor, J. L. Charlesworth.

Wounded, Gassed, Injured or Shell-Shocked—H. M. Gardiner, R. A. McLaren, H. A. Mossman, H. R. Banks, H. M. Blake, O. M. Johns, G. A. Cruse, M. A. D. Davis, C. P. Halliday, E. H. G. Worden, C. B. Macqueen, G. E. Howard, R. A. Lyon, H. T. Fice, E. H. Burr, I. Osborne, W. I. Nurse, H. J. Lofting, H. W. M. Cumming, E. V. Deverell, Ross Lyon, A. D. Banting, R. H. King, A. R. McLeod, W. R. Smith, D. H. Stewart, R. N. Ball, A. G. Smith, T. W. G. Ashbourne, R. C. Calder.

Military Cross—M. A. D. Davis, C. P. Halliday, E. H. G. Worden, H. A. Mossman.

Distinguished Service Cross—S. W. Rosevear.

67th (University of Toronto) Battery C.F.A., C.E.F.

THE University of Toronto has its representatives in every branch of the Canadian Expeditionary Force, and many in the Imperial Forces, but is not directly represented at the Front by any particular combatant unit.

Early in 1916 it was proposed to form a Battery which would consist solely of University men. The 67th Battery was organized and although it is not possible to have it entirely made up of University men at the present time, it still retains its identity as a unit under control of the University. The Officers must be of the University of Toronto and approved by the President.

The first Commanding Officer of the 67th Battery was Lieut. W. J. T. Wright (Faculty of Applied Science). The early part of the summer of 1916 was spent in training at Niagara Camp. In August Capt. E. P. Johnston (University College) took command and a move was made to Petawawa Camp. A draft was then sent Overseas in charge of Capt. E. P. Johnston, who now has command of a heavy Battery in the Imperial Army operating in Palestine.

Lieut. W. J. T. Wright again succeeded to the Command and finished a strenuous summer by sending two drafts across the water under command of Lieut. Jack Newton, a former Varsity football star, and Lieut. Bowles.

In the late Fall the Battery was moved back to Exhibition Camp, Toronto, and spent a cold but useful winter. In February 1917, Lieut. "Billy" Wright took a large draft to England, and is now in France keeping up his good record of strenuous efficiency.

A month later Lieut. J. W. McCullough who was acting O.C. left with another draft. Information has been received that Mr. McCullough has been wounded and is returning to Canada).

Captain Orde of Trinity College was appointed Commanding Officer upon his return from active service in France and Mesopotamia, where he rendered good service.

In May the Battery moved to Petawawa Camp, and throughout a summer of the most strenuous training under Captain Orde established an enviable reputation for smartness and efficiency. Lieut. Fraser Elliott took a further draft Overseas in August.

Capt. Orde owing to ill health was forced to relinquish command. The passing of "Reg" Orde was the only regret of the summer.

Capt. H. E. Cawley (Trinity College and Faculty of Applied Science) who now has command of the Battery went Overseas in 1914 as a gunner with a Battery from St. Catharines. He was granted his commission on the field at St. Julien, serving without mishap for seventeen months through the battles of Festubert,

(Continued on page 70)



67TH BATTERY ON THE MARCH



BATTERY GOING INTO ACTION



67TH BATTERY AT PETAWAWA



FIRING PRACTICE AT PETAWAWA

University Hospital Supply Association

A FORMER issue of the VARSITY WAR SUPPLEMENT contained a brief account of the constitution of the University Hospital Supply Association, an organization composed for the most part of the wives of members of the various university faculties under the leadership of Lady Falconer, and the work already accomplished in equipping No. 4, Base Hospital, University of Toronto, first stationed at Saloniki. Since its establishment in March, 1915, the Association has been extremely active, and when it was found that the hospital at Saloniki no longer required equipment, the work was carried on with even greater force, and the results turned over to the Canadian Red Cross to be distributed where most needed. Special requests made from time to time by the latter organization were promptly met by the Association, and special consignments of socks for immediate use in the trenches were sent through the Canadian Red Cross to the Canadian Field Comforts Commission at Shorncliffe. Some idea of the magnitude of the work may be gleaned from the proceedings of the annual meeting held in October last, when the total expenditure for the year was reported to be in the neighbourhood of \$27,000, practically all of which was expended for materials to be made up into pyjamas, shirts, dressing-gowns, sheets, pillow-cases, and a variety of other articles for hospital use. Mrs. McPhedran reported that 2,679 pairs of socks had been knitted by outside workers from wool purchased out of the Sock Fund of the Association, and these had been distributed both to the Canadian Red Cross and to the Field Comforts Commission.

Shortly after beginning operations the work on surgical supplies was organized as a separate department in the Physics Building. It was carried on with great vigour until the summer of 1915, when it was learned that for a time at least surgical supplies were no longer required. The members of this department then promptly turned their energies into the general work of the Association,

at the same time retaining their organization so as to be in a position to resume surgical supplies at any moment when a special demand was to be met.

The central work-committee has been accommodated successively in the Biological Building, the Household Science Building, and in the Draughting Room at the rear of Convocation Hall, but is now lodged in the commodious upstairs portion of the University Library, where the hum of industry affords a marked contrast to the studious atmosphere of books. Here, three days a week, Mondays, Wednesdays, and Fridays, during the session, and one day a week during the summer, the workers congregate to carry on the good work, to the lively accompaniment of sewing machines and motors. There

is a special cutting and sorting department, and in the basement a packing department which sees to the arrangements for shipment. On Tuesdays the workroom is occupied by the University Women's Club, who provide funds covering the cost of all materials used, and turn the finished articles into the Association.

Although the workroom is continuously busy, a large amount of work is accomplished through outside agencies. Much of it is done by individual volunteers who come for material and make it up at home. There are also many co-operating societies, some of them composed of ladies who have organized for relief work, and others composed of working girls or machine operators who add their patriotic effort to their daily toil, and thus set an inspiring example to many, more leisured, who content themselves with less worthy ideals. In all there are about seventy church and other societies, co-operating with the Association, and

many of them contribute directly to its funds. During its two years of activity the Association has been generously supported by a large number of contributors, many of whom have become monthly subscribers. Of various individual gifts received, none has evoked more widespread com-

(Continued on page 76)



WORKROOM OF THE UNIVERSITY HOSPITAL SUPPLY ASSOCIATION IN THE LIBRARY



BRITISH WOMEN AS FARMERS

The War and Trinity College

By PROVOST MACKLEM.



TO Trinity College the war brought with it the disappointment of long cherished expectations, the postponement of well matured plans, and the difficulty of greatly decreased numbers. In these, and in other like ways, there has been much loss; and yet the gain resulting from the war surpasses all the loss.

When the war broke out, Trinity College was about to enter upon a building programme which had been eagerly anticipated during many years, and for which preparation had been made with great thoroughness. Arrangements for a suitable site in Queen's Park had been concluded. The architects, Messrs. Darling and Pearson, had prepared very beautiful plans for a magnificent block of buildings. Financial arrangements, whereby the work could have been undertaken vigorously and carried out successfully through the first stage of the building programme, had been completed. All this represented years of toil, and thought and care; but now the fruition of it all is indefinitely postponed.

While in the matter just mentioned, Trinity College probably stands alone, there are other ways in which Trinity has suffered in common with every other unit of the University. Especially is this true in respect of decreasing numbers. After fourteen years of almost uninterrupted growth in the number of students and in progress along many lines, there has followed during these years of the war a steady diminution of numbers, by reason of the enlistment of students already enrolled, as well as of others who would have been enrolled in Trinity College during these years, if the war and its complex issues had not disarranged the plans and shattered the hopes of many young people of both sexes.

The senior years contain very few men eligible for military service. The freshmen remain only a year or two, till they reach the military age, and then enlist. For this we thank God and take courage; the heart of our young manhood beats true.

Many of these men have gone from the University never to return. Some of them have been deflected from their earlier purpose by the wedge of war driven rudely into their life. Others will return to conditions so altered that they will find it impossible to resume the plans which were so suddenly interrupted. Others again, and these are not a few, have yielded their lives a willing sacrifice in the great cause. But these lives are not lost. They have been lifted up into the fulness of life. They are not lost either to College, or to

family, or to their country, even as the lives of the martyrs of the early Church were not lost. As the blood of the martyrs was the seed of the Church, so shall the willing sacrifice of these young men prove to be the seed of a rich harvest yet to be reaped.

Statistics cannot tell the full tale of the experiences of these three years, but for such tale as they can tell, here they are:



PROVOST MACKLEM

Active Service List of Trinity College.

1. ACADEMIC STANDING:	
Undergraduates.....	63
Staff (present and former members).....	6
Graduates: Medicine, 97;	
Arts, 71; Divinity, 8;	
Dentistry, 3; Law, 1;	
Music, 1; Arts and Medicine 3;	
Arts and Divinity, 20; Arts and Law, 3;	
Medicine and Divinity, 1....	208
Other Alumni.....	61
<hr/>	
Total enlistments (to 15 Oct., 1917).....	338
<hr/>	
2. MILITARY RANK.	
Commissioned officers—	
(Brig.-Gen. 1, Col. 14, Lieut.-Col. 19, Major, 34; Capt. 99, Lieut. 101).....	270
Non-commissioned officers.....	16
<hr/>	
3. CASUALTIES, ETC.:	
Dead.....	31
Wounded.....	36
Prisoners of War.....	15
On leave in Canada.....	9
Discharged.....	11
<hr/>	
4. HONOURS:	
C.M.G. 4, D.S.O. 1, Military Cross 10; Bar to Military Cross 2; Croix de Guerre 1, Royal Red Cross 1, Serbian Decoration 1, Military Medal 1, Mentioned in Despatches 30. Total..	53

Such, briefly, is the debit side

of the account. What is to be said on the other side? What about the gain which surpasses even so great a loss?

The gain to Trinity College through the war is deeper and more far-reaching than lies within the scope of this page to tell; but some hint of it may be given. It has to do, not with material things, for in these all is loss, but with spiritual measures and moral qualities. The gain is found in deeper insight, stronger purpose, greater seriousness, higher idealism, worthier conceptions of service. It is found in genuine sacrifice, and in the force that is born of sacrifice. It stands revealed in a great increase of spiritual life and strength. An answer has been given to the poet's prayer:



EARLY PARADE AT 7 A.M. IN THE EARLY DAYS OF THE WAR

“May this
Fierce flame of untold sacrifice
Burn off our bonds, and set us free
For nobler service unto Thee,
And wider ministry.”

Before the war a College course meant to too many—not to all—a few years of easy-going comradeship, of responsibility lightly assumed and lightly cast aside, of precious time half-used, half-wasted, perchance misused. Now, after these searching years of sacrifice and service, there is not a member of Trinity College who is not animated by the spirit of “Great Heart”:

“Where are you going, Great-Heart,
With your eager face and your fiery grace?
Where are you going, Great-Heart?

To fight a fight with all my might,
For Truth and Justice, God and Right,
To grace all Life with His fair Light.
Then God go with you, Great-Heart.

Where are you going, Great-Heart?
To lift To-day above the Past;
To make To-morrow sure and fast;
To nail God's colours to the mast.
“Then God go with you, Great Heart.”

67th (University of Toronto Battery) C.F.A., C.E.F.

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Givenchy, and Loos. He was forced, after the battle of Zillebeke to travel *via* the Red Cross Route to England and was sent back to Canada and later was transferred.

Since coming to Toronto, drafts have been sent Overseas under command of Lieut. H. D. Wallace. Lieut. A. R. Gordon and Lieut. K. M. McLaren have lately proceeded overseas with a draft from the C.O.T.C. Lieut. R. W. Hart is the only appointed Officer left, and he is leaving shortly for the front.

To Sgt.-Major A. E. Jennings and the N.C.O.'s of the Battery, a great deal of credit is due for their instruction and the splendid discipline existing in the Battery.

A splendid class of men have always gravitated towards the 67th Battery owing to its connection with the University. Both the University authorities and students have given the Battery their loyal support. The Students' Administrative Council has contributed \$1,750 to the Battery funds from the military equipment fund raised in connection with the 1916 Edition of the VARSITY MAGAZINE SUPPLEMENT.

The University of Toronto has every reason to be proud of the 67th Battery and its work in the training of Artillerymen. The pride in their unit developed in Camp and Barrack room will carry the men of the 67th to glorious deeds on Britain's far flung Battle Line.

Victoria College and the War

BY CHANCELLOR BOWLES



THE war came to Victoria on as fair a day as the College had ever known. The session of 1913-14 was the best and brightest in her long history. That year saw all records of attendance broken. The same year saw the appointment of no less than four new members on the staff. Above all the men's residence and dining hall were opened and Victoria found herself occupying a prominent place in the social life of the University. The College spirit, always much in evidence, was intensified and took on new forms and activities. It was a fair day indeed, full of bright hopes and prophesies. How different the succeeding years have been!

To adjust herself to the new war conditions was no easy task for Victoria. Psychologically she was without any preparedness. The war was a business utterly repugnant to her spirit. Was she pacifist? Well the word has many meanings. Victoria was not pacifist in the present connotation of the word. Still war was to her extraneous if not obsolete matter. It lay outside her interests and thoughts, could scarcely be called one of her problems. The action of the few students who went to the Rifle Ranges to learn to shoot could by no stretch be called a work of preparedness. They liked to shoot and one of their number—he sleeps in France now—importuned them on the matter. But the whole business and paraphernalia of war was unfamiliar. Captains and Colonels were unknown. The distinction between officer and private was unrecognized, or if recognized abominated as undemocratic. As for Germany—well it was well known that militarism was enthroned there, but was there not a better Germany which would never plunge Europe into war without cause? The cause would not be given and the best way to treat matters was to ignore some possibilities and busy oneself with hoping and trusting and believing in the better spirit of Germany and all other nations. Rude indeed was the awakening!

And yet Victoria soon found her place in the new order. The C.O.T.C. organized in the University found its most enthusiastic and serious support among her students who, although expected to furnish only one, furnished two companies. So earnestly did the men give themselves to the exercises of drilling and marching that they soon were recognized as the best trained companies on the University Campus. To-day the records show over 500 students and recent graduates enlisted. Of these thirty-three have served unto the

uttermost. For Country and Empire and the Great Cause they gave their lives away in the bright morning of their youth. We strive with utmost care to keep the roll of their names and some record of their great service. We do well indeed to do so. When these days have passed and the fair days of peace return some suitable memorial to their memory will be erected. Their costly sacrifices and the worthy examples of those who shall be spared to return will through centuries enrich the traditions and constitute the most precious inheritance of the college. What indeed is a college but a cluster of memories and hopes

and ideals? Henceforth what great memories will live in all the colleges of Canada! Out of these what new hopes will spring, what new ideals will arise! What fine old ideals will renew their youth!

Victoria men, like the men of other colleges, did not do what they did by grace of the recruiting officer. Indeed among college men the recruiting officer was esteemed an intruder. For most men the matter was private and personal and sacred. It was accompanied with heart searching and was a serious moral quest to know one's duty. Seldom was the decision made in an adventurous mood. Enlisting did not take place in a wholesale fashion. It was not the action of a class or group but the single action of individual men who faced each his own problem. The path was not always plain. The constraints and traditional sentiments of the Christian ministry were upon some and seemed to complicate and aggravate their problem. The matter got mixed up with profound and unanswerable ethical questions. The mystery of the world's evil became appalling and terrifying to some. The very foundations of their faith in God and humanity were shaken. The question of

enlisting precipitated a crisis. However it may have been elsewhere, in Victoria the first years of the war constituted a day of spiritual judgment. Men were put to the test. They were tested and tried and were not found wanting.

It is impossible to refrain from speculations as to conditions in the college after the war. Much as it is to be regretted there can be little doubt many who return will never complete the unfinished courses out of which they have been so violently thrown. They will return much older, not in years only but in experience. New and other interests, a different attitude toward life, the sense of a different relation toward their fellows, will conspire to put them it is to be feared out



CHANCELLOR BOWLES

of touch with the confined and unexciting life of the student. And yet who knows? May it not be that this quiet life will seem very good in the eyes of men who have endured the thunders and perils of war? Let us hope for a great number of soldier students in the days to come.

How will this affect the standards of scholarship? It would seem reasonable that for a few years at least these standards should be more flexible and accommodating. Essential as accurate and high scholarship is it is not everything and the Universities of Canada will not suffer deterioration if our mechanically exact standards are for a while allowed to fall into the background and more confidence is placed in less easily applied but more spiritual ideals.

As to these ideals, this at least I think may be said of them, that after the war they will put the accent more distinctly than ever on the law of service as the most fundamental thing in Christian citizenship. The less essential

matters, matters of creed and the not very significant and smaller moralities of speech and conduct, will be lost in the splendid simplicity and naturalness of really Christlike and noble living. The hope that it will be thus can give a good reason for itself. The letters our students in arms are sending home to friends foreshadow these coming changes in our ideals. Donald Hankey, in what is probably the most significant book the war has produced, has made these ideals articulate. Moreover the student life of the country was feeling its way toward this simple, strong conception of the "whole duty of man" even before the war. The search however was beset with many obstacles. These have largely disappeared. The day revealed them and the fire devoured them. Much accelerated and with new strength the student life of the land is surely moving toward a clear and unequivocal recognition of the strong, simple and elemental things of Christianity.



The Secours National

By DOROTHY WALKER

THROUGH the courtesy of the Board of Governors of the University of Toronto, the French Red Cross Committee of the Secours National have been given the use of a room in the Biological Building where they hope to carry on their work of sending supplies to French hospitals through the Paris Headquarters of the Society, on a larger scale than ever before.

For the past three years the Committee have worked with the other members of the Secours National in their rooms on King Street and during that time have shipped 872 boxes of hospital supplies. These boxes contained chiefly bedding, pyjamas, shirts, dressing-gowns, rubber-sheeting and gloves, hot water bottles, etc., and during the last year, as the result of a special request, material for surgical dressings in bulk instead of the dressings themselves. These supplies will be

shipped as before but as there is a renewed demand for prepared surgical dressings the Committee expect to resume the making of these as soon as they have received explicit instructions from Paris.

When the loss of their rooms in King Street made a general move necessary for the Secours National, the French Red Cross Committee were given permission to use the room in the Biological Building and they feel very grateful to the Board of Governors for making it possible to carry on this work under such pleasant and favourable conditions. The Committee wish to take this opportunity to thank them for their generosity and to thank the editor of the VARSITY WAR SUPPLEMENT for publishing this account of what they are doing.

The Sinews of the Empire

By IAN MALCOLM.

(Mr. Malcolm, a member of Parliament in England, was the British Red Cross Sub-Commissioner in France during 1914-1915, where he played an important role in the gigantic task of building up the great organization of the British Red Cross Society at the outbreak of the war. In 1915 and 1916 he was Commissioner to Russia and last spring accompanied Mr. Balfour, the British Foreign Secretary, as a member of the Commission that visited the United States. Mr. Malcolm is also the author of many books, including his latest, "War Pictures," describing his visits to the various fronts.—THE EDITOR.)

This article is published by the courtesy of the "American Red Cross Magazine"

NEVER was any society more truly national than the British Red Cross Organization. It is composed of the nation, belongs to the nation, is administered by the nation, and to the nation is due the credit for the wonderful work that it has been able to achieve.

There are two or three countries, Germany and Russia amongst them, who for the last twenty years have always kept their Red Cross organizations closely linked up with their armies and on almost a war footing even in times of peace. This has never been our plan in England.

However, when the war did break out in August, 1914, our small and quite unknown Red Cross organization pulled itself together, amalgamated with the Order of St. John of Jerusalem, and offered the War Office to work unitedly, body and soul, day and night, for the relief of suffering on the fields of battle and at home. Nothing showed how the true causes of the war had roused the conscience and soul of the Empire like the lightning flash of response that came to our Red Cross appeal for men, money, and supplies. From all quarters of the British Empire came help: the poorest and the richest at home, the Rajah and the ryot in India, the South-African millionaire, the Canadian rancher, tea-planters from Ceylon, sheep farmers from Australia and New Zealand, competed to be the first to offer themselves and of their best. No wonder that, at first, our modest organization was overwhelmed; the marvel is that it did not utterly break down. Instead of which it has triumphed gloriously.

How far off those days of August seem now, when we sent the first unit of doctors and nurses to Belgium! By August 20th, when Brussels fell, we had six units helping the Belgians. Next we concentrated more or less on Paris—during the battles of the Marne and the Aisne—providing not only hospitals and supplies and personnel, but a fleet of 500 motor ambulances in a fortnight, the first that had ever worked with the British Army. It was at this point that I joined up, to help Lord Robert Cecil to organize a new department, whose object was to trace the wounded and missing and also to identify the graves of those who had fallen in France during the eventful month of September, 1914. We also established six or seven inquiry bureaus in France, one in Malta and one in Egypt, with a large central organization in London; and I believe that this has done as much to relieve anxiety at home as any other branch of Red Cross work could do.

As the war progressed, the calls on the Red Cross became more insistent every week. In France alone we now have no less than 250 ambulances working with our Army (practically under fire all the time) between the field hospitals, the clearing hospitals and the hospital trains. Besides these, we have 900 other ambulances nearer the various lines with the British Army, 100 with the French and 25 with the Belgians—to say nothing of between 400 and 500 other motor vehicles, which



THE HONOURABLE IAN MALCOLM

are required for various services, and a staff of some 1,500 men for ambulance work alone. The cost of running this one Department is no less than \$23,000 a week, and cheap at the price. I have told you that the Red Cross ambulances bring the wounded soldier from the advanced hospital to the train as soon as he may travel. We have provided four such trains and they are models of their kind. Each one carries 450 normally, but can take 500 at a pinch. Each train has, besides its beds, an operating theatre, a dispensary, kitchens, and an expert staff. Thousands upon thousands of wounded men have used these trains, including His Majesty himself after his severe accident when reviewing his troops in France. From the trains the wounded are taken to the base hospitals all along the French coast, to places which once we used to visit as tourists during our peaceful summer holidays: to Calais and Boulogne, Rouen, and Dieppe and elsewhere. There are 14 of these hospitals with about

2,000 beds. The largest of them—at Étaples—cost \$215,000 to erect and equip: it has a matron, fifty-two nurses and twenty-two Volunteer Aid Divisions of the St. John's Brigade. Besides these, we have established on the lines of communication rest stations innumerable, where wounded men can be dressed and fed, Veterinary Corps Hospitals, Nurses' Clubs, and Hotels for the relatives of dangerously wounded men who are sent for in a hurry. All this immense organization exists in France alone, and by far the greatest part of it just behind the British lines.

But that is only a part of our Red Cross work, and, in a sense, the least difficult part, as it is so comparatively close to London.



RED CROSS BASE FOR HOSPITAL SHIPS AT LEMNOS

Soon after the outbreak of war, Serbia was visited by a fearful epidemic of typhus fever. Thither went immediately many well-equipped hospital units from the Red Cross.

The entry of Turkey into the war brought about the necessity for the Red Cross to participate in two other cam-



SALONIKA, A BRITISH RED CROSS BASE

paigns of great magnitude—in the Mediterranean and in Mesopotamia. Take the Mediterranean first. On the shores of Gallipoli we established a Red Cross hospital station; at Mudros (on the island of Lemnos) we had a refreshment depot and a vast store of medical necessaries and comforts to supply the hospital ships that plied without ceasing to Malta and to Egypt. At Malta, we are responsible for supplying stores to two hospitals, and 200 hospital ships with requisites and comforts for the wounded. In the first eleven months, we sent there no less than \$430,000 worth of sick-bed necessaries alone. And then Egypt: there a similar service is established, but on a far larger scale. There we have six hospitals with 1,500 beds; a stores department at Alexandria, which gives supplies to seventy military hospitals in the Mediterranean area and has replenished the requirements of about fifty hospital ships, some of them many times over. And what Alexandria does for the hospital ships plying between the Mediterranean and England that Suez does for ships conveying wounded and convalescents home to India or Australia. The organization in Egypt includes five hospital trains, besides Red Cross invalid kitchens and canteens for the wounded; during one week of November last year, over 36,000 invalid rations were supplied from the fifty-two kitchens alone. I have said nothing about the fleet of motor boats and other craft which the Red Cross has in the Mediterranean, for the purpose of transporting men and stores from one place to another; it will be enough to conclude my account of this branch of our work by observing that we employ in it over 1,000 persons, more than half of whom are unpaid; and that, just a year ago, we sent out to Saloniki the largest single consignment of stores ever despatched from headquarters in London. Its value was

\$100,000; it weighed 250 tons, it was conveyed in over 2,000 bales and cases, and it was used, not only for the British, but also for the French, Russian, Serbian, and Italian armies operating side by side in that difficult zone of war.

Let us glance at our work in Mesopotamia—noticing that we are getting ever farther away from England, our base of operations, whence everything has to be shipped by sea, even in these most perilous times. However, at the earliest permissible moment, the Red Cross sent thirty-five motor ambulance boats for the Tigris and a fleet of fifty motor ambulances, besides many thousand pounds' worth of stores including water-beds, air-beds, mosquito curtains, ice-machines and wheeled chairs. Quite recently, we have launched on the Tigris, a shallow-draught hospital ship, specially built for the work; and now we have a completely equipped convalescent home at Amarah—half-way, roughly, between Basra and Kut: so that all Red Cross subscribers can feel that they are doing their bit to help that gallant Anglo-Indian Army, which now, by the will of God, has safely reached, conquered and occupied Bagdad.

Thus far I have written of six campaigns in which the Red Cross has been engaged: in France, Serbia, Egypt, Gallipoli, Saloniki, and Mesopotamia. There is a seventh, in East Africa, of which we know all too little at home, but which is now drawing to a successful conclusion. There too we have been responsible for stores for the tropics, for hospital units at the base and at the front, for motor ambulances and river-launch ambulances; and the record of their activities in Equatorial Africa is one of which our friends and supporters may well be proud.

But it will be a mistake to suppose that even this recital of great and unprecedented activity marks anything like the whole extent of Red Cross activities during the war. There are countless Red Cross Hospitals and Homes and Institutions and Work Centres scattered about from East to West, from North to South of the British Isles, all working at full strength: there is the Prisoners of War Department, supplying something like 150,000 parcels of food every fortnight to our prisoners in Germany alone; we have our organization to look after our prisoners interned in Switzerland, but even this is not the end.

To France, we have given 100 motor ambulances, which are working from Verdun down to the Mountains of the Vosges, as well as stores amounting to many thousands of pounds. To Italy, we have sent four ambulance units, the only representatives of a foreign country working on land with the Italian Army; they have done magnificent work over the difficult mountain passes, and No. 1 unit had the honour of entering Gorizia with the first Italian troops; the others have all distinguished themselves, one of them receiving mention in a Special Order of the Day. To Italy we have just

recently sent a special present of \$100,000 worth of stores for the brave Italian wounded. Russia we have been proud to assist as Allies with motor ambulances and motor kitchens, as well as with a hospital for 200 beds in Petrograd and another in the field—and to Rumania we have sent a large unit of doctors and nurses with a full hospital equipment and \$50,000 worth of stores. To all our Allies the British Red Cross has given generously with a loving heart.



MALTA, A BASE FOR HOSPITAL SHIP SUPPLIES

Knox College and the War

BY REV. A. GANDIER, PRINCIPAL OF KNOX COLLEGE

WHEN war was declared and Canada decided that her sons would go overseas to share with the sons of Britain and her allies in staying the ravages of the aggressor, among the Presbyterian ministers who accompanied our Canadian men and served them as Chaplains were more than twenty graduates of Knox College. Among these were such well-known men as Colonel the Reverend William Beattie, D.D., C.M.G., and Major the Reverend Charles W. Gordon, D.D.

The next call to Knox men was for Y.M.C.A. workers with the overseas troops. One of the first to respond was Oscar Irwin, B.A. Oscar was the most popular of students, always the centre of a bunch, always an influence for good—just the one to go with our soldier boys, share their hardships, have their confidence, strengthen them with good cheer and help to hold them pure and true in the hour of temptation. He went with the First Contingent and was one of many in that Tenth Battalion who at Ypres in the spring of 1915 gave their lives that the Germans might not break through to Calais. Others followed in this service and in all nine Knox students have gone from us for Y.M.C.A. work in connection with the war.

After the first year of the war when it became evident to thoughtful men that this was not a war of months but of years and that it was widening into a world conflict in which the powers of light and darkness were contending for the future mastery of human history, many of our students who had dedicated their lives to the service of their country in the Christian ministry felt an immediate call to the combatant ranks. In addition to Chaplains and Y.M.C.A. workers, in the course of three years more than sixty students have enlisted and Knox is represented in practically every department of the Service. We have given what is equal to a full Graduating Class each year.

The spirit which actuated our men is evidenced in the letter written to his father shortly before leaving by Reginald Turnbull, M.A., one of our most brilliant students, the Post-graduate Fellowship man of his year. Reginald Turnbull hated militarism as perhaps no other man in the College did; to him the very thought of war was utterly abhorrent, yet he wrote, "Better for my bones to bleach on some hillside in France than that I should ever have to bear the reproach of not having seen my duty. "He that saveth his life shall lose it". Whether I live or die is for God to say and not for me or any man. As the Good Shepherd giveth his life for the sheep, so I must go to protect those who cannot

go". He went and like the Good Shepherd gave his life for others, being killed in action at the battle of Vimy Ridge.

As we write, the sad news comes that Hugh R. Kay has been killed in action. Kay was a big man physically and mentally, a man who combined strength and gentleness, one whom we all loved and of whom we expected great things. The last time we saw Kay was when after enlistment he came back from Guelph to take part in an oratorical contest in the College Chapel. The big, brave lad in khaki, who had himself come from Scotland, spoke on the future of Canada with such eloquence and conviction that the instinctive prayer to God was that he might return to help us in the work of nation building after the war; but now it is not to be and our cry is that the spirit of these mighty men who are not again to be with us—the spirit of sacrifice awakened by this war, may come to the younger boys who are just emerging upon their life work in this critical hour for the nation and the Church. The young men upon whom our hopes were set have been sacrificed to the world's sin. May that sacrifice help redeem the world from its sin and inspire our boys to a heroic manhood!

In addition to Irwin, Turnbull and Kay, three of our younger men still in their Arts Course have fallen in battle and one through sickness, while several have been wounded; but we acknowledge with gratitude that, considering the number who have gone and the length of time many of them have been at the battle front, Knox men have been wonderfully preserved from wounds and death. Three of our students have returned home disabled, one of whom we have welcomed back to Classes. We trust he is the first of many who will yet return and resume their studies—men who will be effective both by College training and the awful experiences of the war for leadership in that work of religious and social reconstruction which awaits us in Canada.



KNOX COLLEGE

The College Classes, thinned to the vanishing point, would soon fill up again were it not that almost no young men are coming in to begin their studies. The lads in the High Schools, not old enough for Military Service, are going back to take the places of older brothers and of hired men who have gone to the Front. There is not one Graduate of the University of Toronto in our First Year Theology although in normal times there would be from fifteen to twenty. The gap is being filled, so far as it is being filled, by men of more mature years who are responding to the Church's call in this hour of need and in whom the experience of life and

service is accepted as an equivalent of a University Course. The dearth of students for the Christian ministry has enabled Knox to open the doors of her Residences to students of other Faculties. This has proved a great advantage to many, now that the Burwash Residence and the University Residences and Dining Hall are given over to the Officers' Training Corps and to the Flying Corps. Never before did Knox gather within her walls so cosmopolitan a group. Fine fellows they are who, in Medicine, Dentistry, Law, Science and Teaching, will be none the less effective because of a winter or two in Knox.

University Hospital Supply Association

(Continued from page 68.)

ment and appreciation than that of over \$4,000 contributed by the Students Administrative Council as part of the proceeds of the VARSITY WAR SUPPLEMENT. This undertaking, already ranking as the most important of student activities in the history of the University, has benefited several branches of war-work, and one may imagine what the Association has been able to accomplish by turning such a sum of money into hospital comforts for injured soldiers.

Great as the results have been, both in work and contributions, the cry is ever for more. No. 4 Base Hospital has been moved to Basingstoke, England, and Col. Hendry, who is now

in command, has asked for a complete new equipment, since, owing to lack of transportation facilities, no stores could be transferred from Saloniki. The hospital now has 2,000 beds instead of the original 1,040, and a spur-line of railway has been run into the grounds, so that cases reach the wards directly from the field of battle.

In order to save time, owing to the distance between Toronto and Basingstoke, the hospital is obliged to indent on the Red Cross in England for its supplies, but the Association will recoup the Red Cross, so that the same result will be accomplished.



FIRST AMBULANCE PRESENTED BY STUDENT'S ADMINISTRATIVE COUNCIL

The Faculty of Forestry and the War

BY DEAN FERNOW

THE Faculty of Forestry is still in the pioneering stage, that is to say, the practice of the profession is as yet hardly established in the country and hence the employment of its devotees and the number required are still problematical. For this reason the Faculty has grown slowly and developed cautiously as far as numbers are concerned.

In the year before the war, it had, however, attained to the number of 51, with a newly entering class of 21, which would have been near the desirable number for some time to come. For the session immediately following the declaration of war the registration had a total figure of 50, and a new entering class of 20 was recorded. By the end of the session six of the registrants had enlisted,



and for the session of 1915-16 the total registration had fallen to 32, only three being newcomers. By the end of the session the number had dropped to eleven, mostly through enlistments, and at that time of the 124 names of regular students at one time registered in the Faculty not less than 60 per cent. were enlisted.

The present session started with nine registrations, four of them old students physically unfit for service, one an incapacitated returned aviator, and four of them new students under military age.

At present writing, as far as known 78 undergraduates and graduates of the Faculty are enlisted, 28 of the latter. Twelve have given their life for their country; 16 have been wounded or ill; two are prisoners.



SECOND AMBULANCE PRESENTED BY STUDENT'S ADMINISTRATIVE COUNCIL

The Ontario Veterinary College

By PRINCIPAL GRANGE.



LARGELY through the influence of the late Honourable Adam Fergusson of Woodhill, Ontario, and the late George Buckland, Professor of Agriculture in the University of Toronto in former days; the College was established in 1862.

There were very few students to begin with, and not until 1866 were there any graduates, when three gentlemen were examined and granted a license to practice Veterinary Surgery by the Agricultural and Arts Association of Upper Canada.

In the early days lectures were given in the Agricultural Hall on King Street West.

The progress of the College was steady but slow for some years, soon however the attendance grew until it became necessary to erect a suitable building for teaching purposes, and in a few years afterwards, important additions were made to the original building, but even this did not suffice, and in 1889 a new and spacious college building was erected, and soon filled with about four hundred students.

The advancing years of Professor Andrew Smith, who had been Principal of the College since its inception caused negotiations to be entered into with the Ontario Government for the taking over of this institution which had so forcibly made its weight felt upon the live stock industry of the Dominion of Canada, and on the 1st of July, 1908 the college

became a government institution and the course of lectures extended to three years.

It was not long before it became evident that increased accommodation was necessary for teaching Veterinary Science according to present-day methods and the erection of a commodious building was soon commenced on University Avenue and completed in 1914. Visitors to this new building extol its construction and equipment most favourably, some saying it is the best equipped institution of its kind they have seen in North America.

Since the College was taken over by the Ontario Government, over six hundred young men have graduated from its halls, and although the hostilities in Europe have had a baneful effect on attendance of students, yet it is still running at the century mark.

The increased demand for more advanced education in Veterinary Science has caused the College to still further lengthen its course, and now it is working under a four-year Curriculum, particulars of which will be found in a calendar, that will be mailed to those who desire it, if they send their names and address to the Principal of the College.

The names of many Veterinary College students will be found in this publication, but there is also a number of Veterinary men on service who passed through the College before its affiliation with the University, of whom there is no record.

Fall In!

By LIEUT. LEO BUCHANAN, Killed in Action, St. Eloi, on April 20th, 1916

A MOMENT now to say "good-bye",
The bugles fling their piercing cry;
"Fall in, fall in," a thousand feet,
Tramp to their places in the street.

A moment fleet as flash of swords,
Time for a dozen gasping words—
Yet I shall live it o'er and o'er,
In silent watch and battle roar.

Give me your hand—and may I choose,
A guerdon for the things I lose;
'T would be, that from your inmost heart,
My image may not quite depart.

So when in storm, and dark and cold,
A thousand leagues away we hold,
Our solemn watch in pits of dread,
Where lie entombed the myriad dead.

The moment's past, again, good-bye.
The bugles fling their piercing cry,
"Fall in, Fall in," a thousand feet,
Tramp to their places in the street.

That I may hold a solemn faith,
That when across your eyes, a wraith—
My face appears, a shade of fear,
Brings to your eyes an unshed tear.

That when they tell a thousand tales
Of war, your cheek a little pales,
And that you scan with pause of breath,
The narrow print of deeds and death,

For me, and if my name is there,
And you should find a record fair,
That you will pause and turn aside,
And know a more than foolish pride.

Some day you'll hear the thrilling strain,
"Fall in", for those who come again.
If I am left on Flander's coast,
For me in echo, the "last post".

ON ACTIVE SERVICE

To set the cause above renown,
 To love the game beyond the prize,
To honour, while you strike him down,
 The foe that comes with fearless eyes;
To count the life of battle good,
 And dear the land that gave you birth,
And dearer yet the brotherhood
 That binds the brave of all the earth.

—HENRY NEWBOLT

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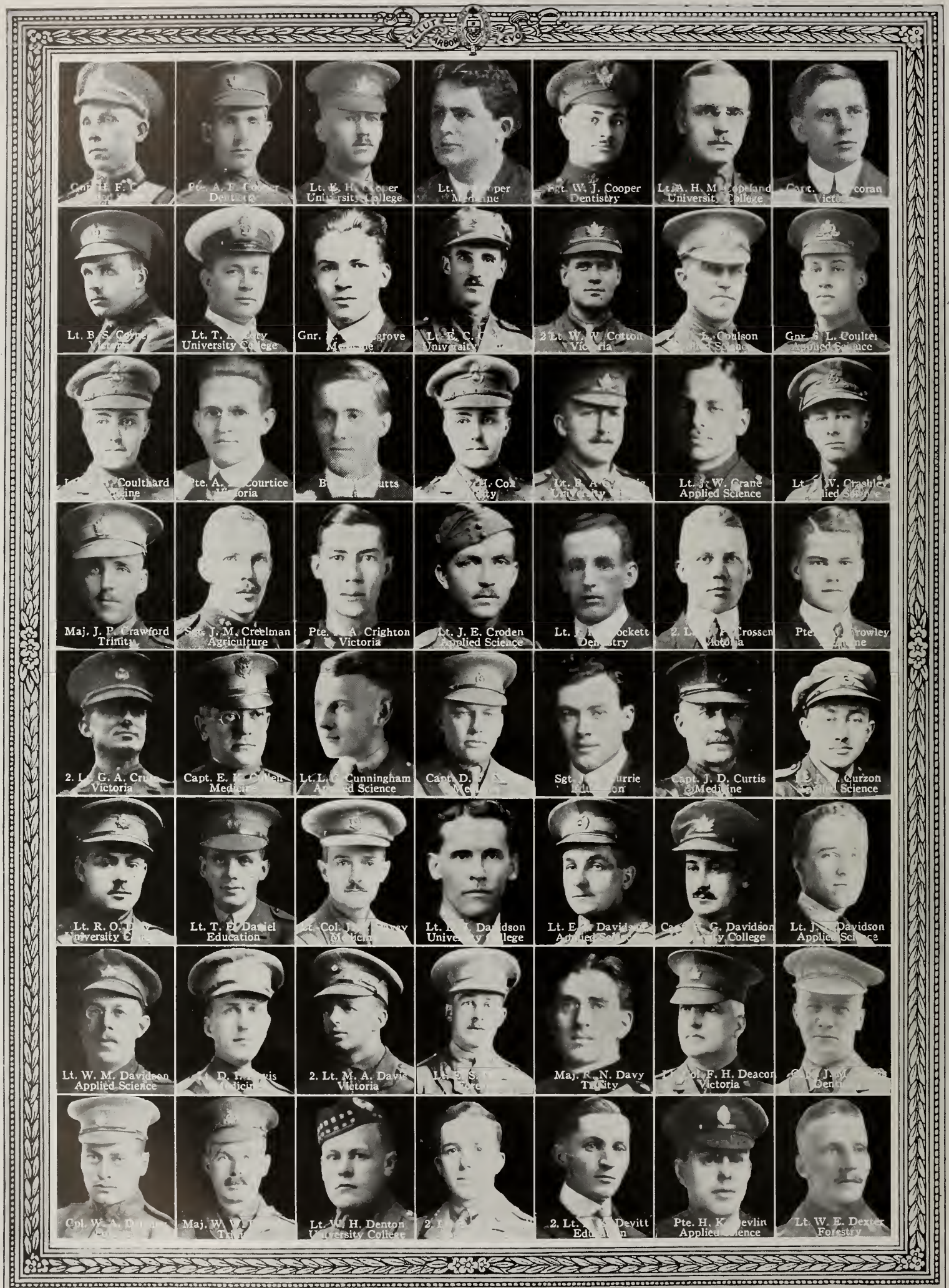
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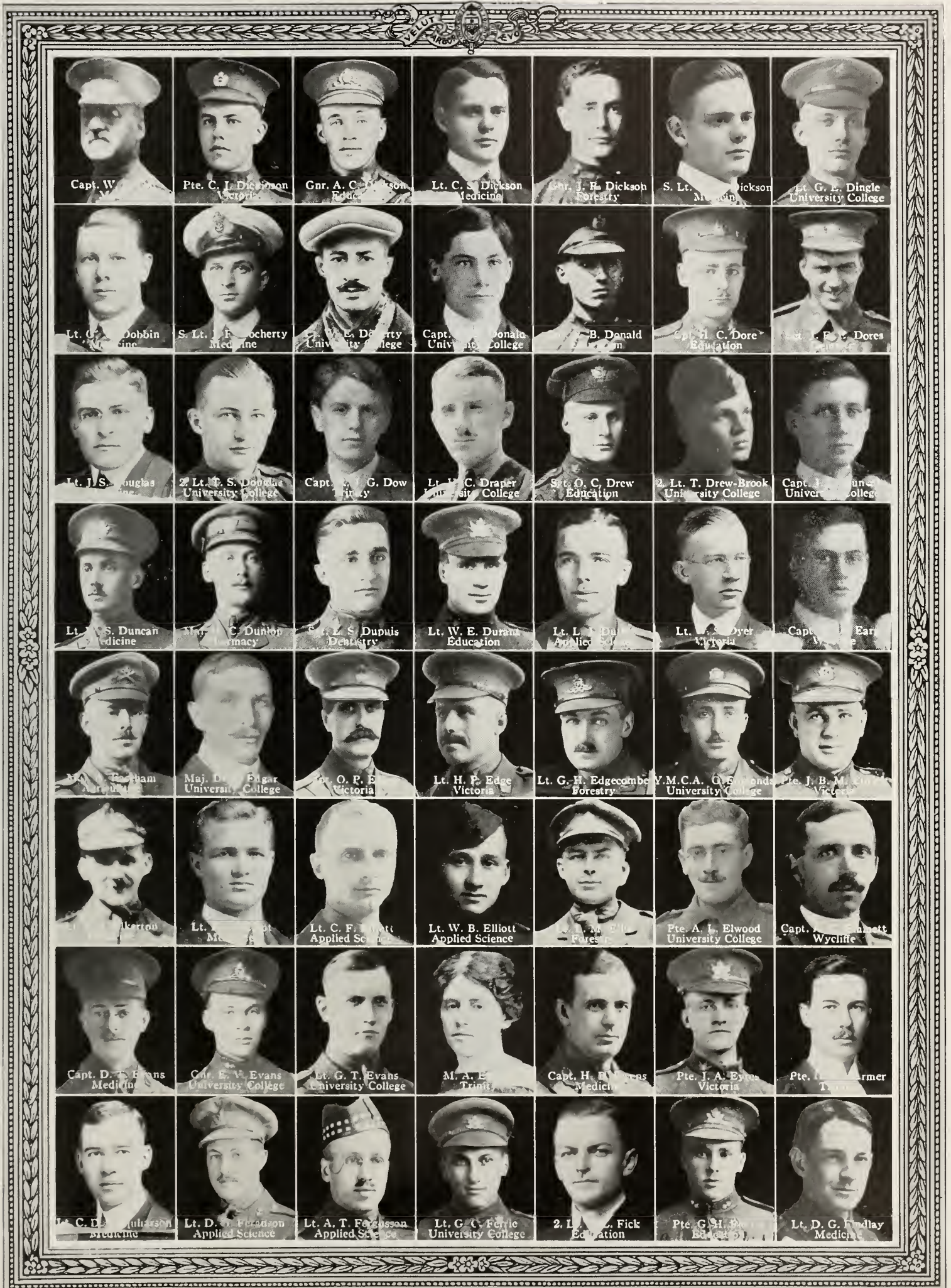


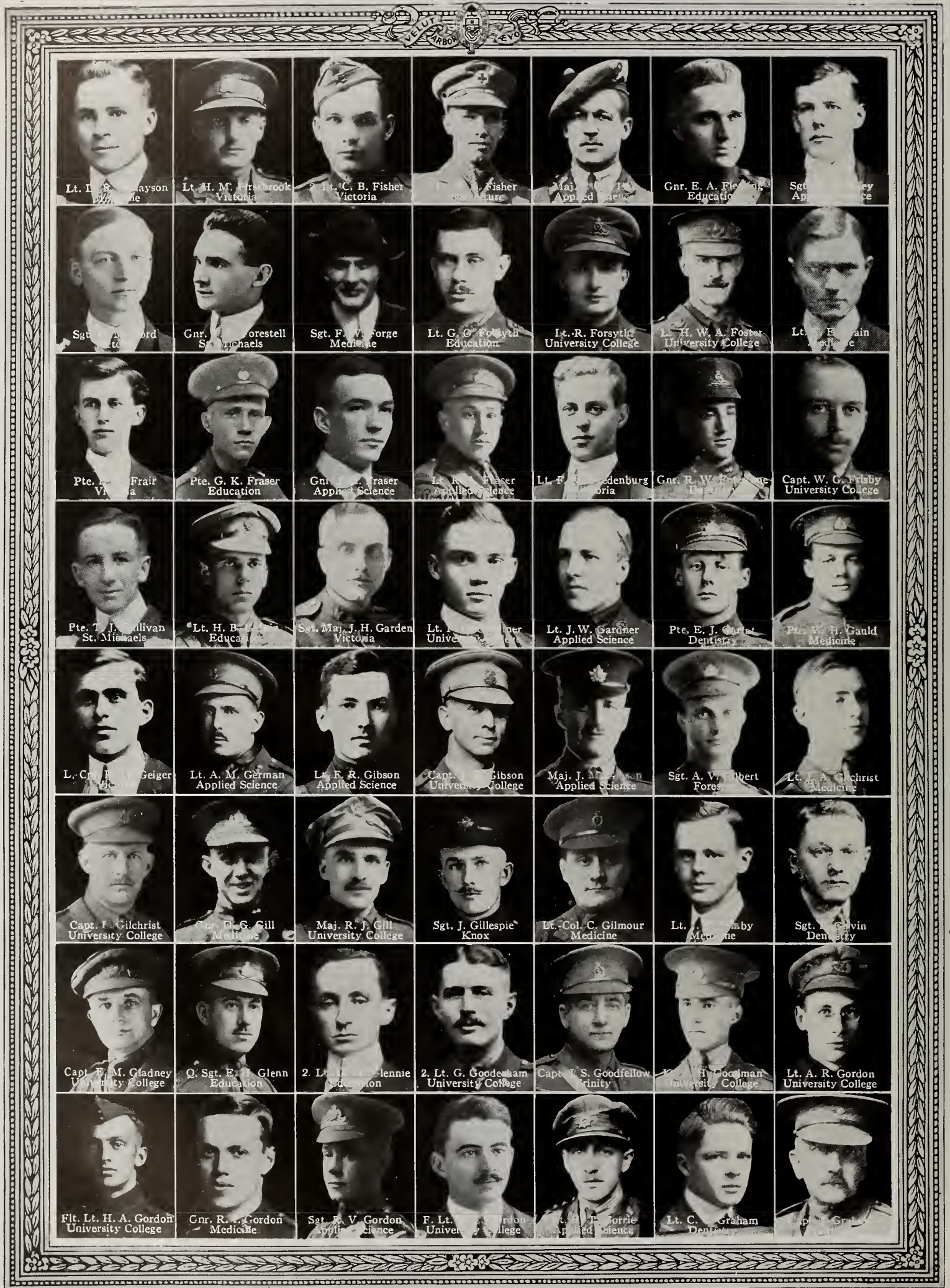










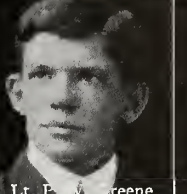
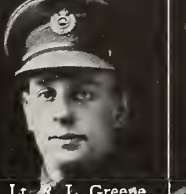


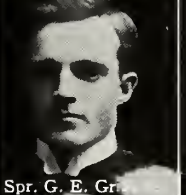
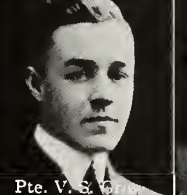







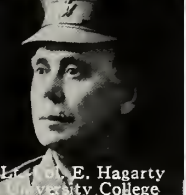




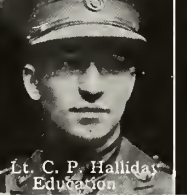
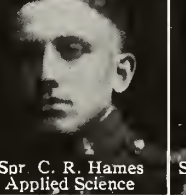
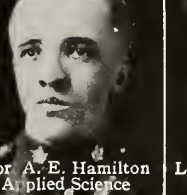


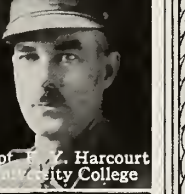







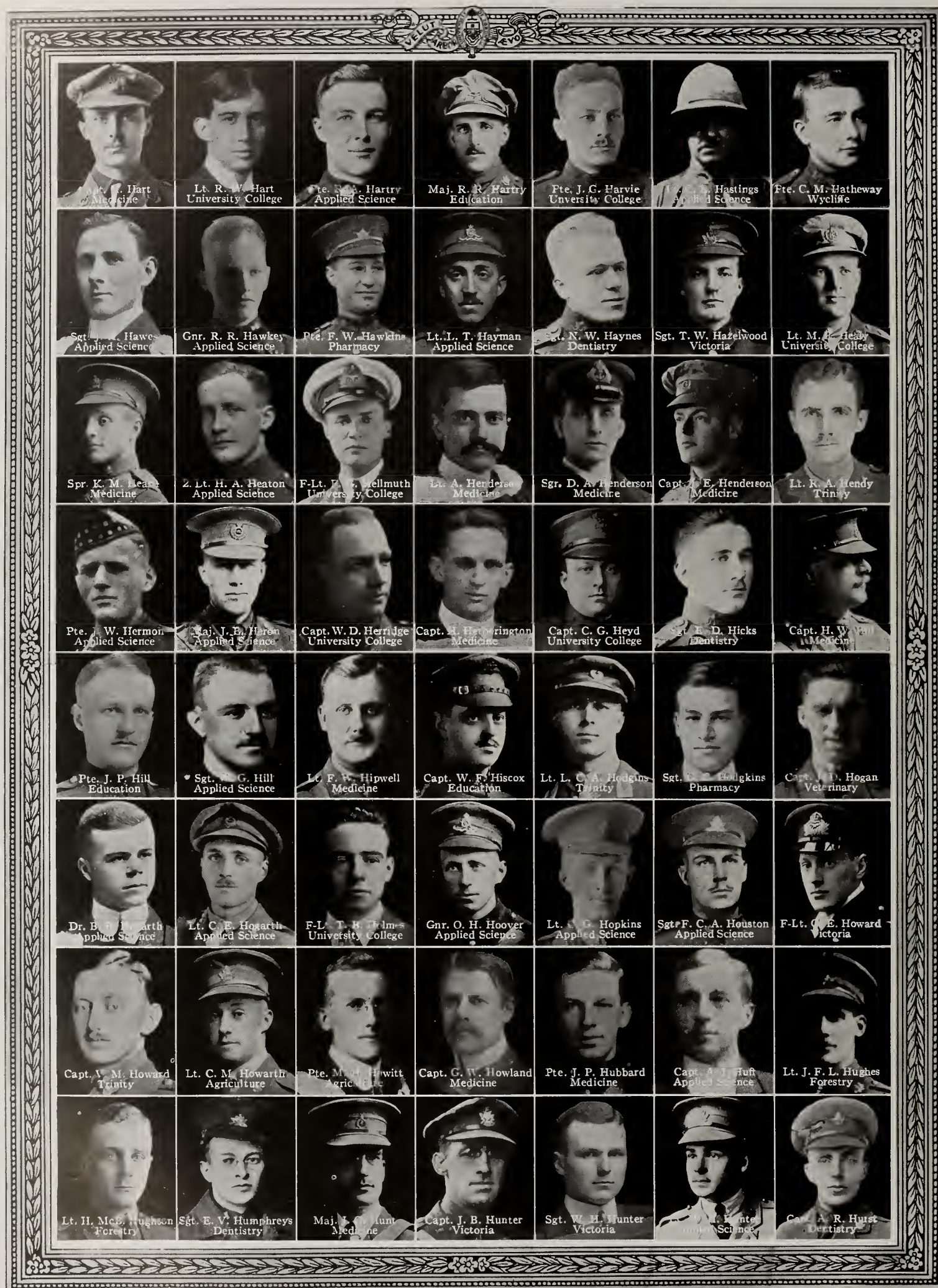








 Lt. M. Graham Medicine	 Capt. V. V. Graham Medicine	 Capt. F. Grandy Education	 Lt. A. C. Gray Applied Science	 Lt. R. M. M. Gray Pharmacy	 Spr. W. H. Gray Medicine	 2. Lt. A. Graydon University College
 Lt. A. Graves Medicine	 Capt. A. D. Greene Wycliffe	 Maj. E. K. Green Applied Science	 Lt. P. Greene Applied Science	 Lt. K. L. Greene Applied Science	 Maj. W. R. Greene Dentistry	 Lt. Col. R. H. Green University College
 Lt. C. G. Grier Trinity	 L.-Cpl. F. R. Griffin Medicine	 Spr. G. E. Grier Applied Science	 Pte. V. S. Grier Medicine	 Lt. E. J. Guest University College	 Capt. E. Guest Medicine	 Sgt. H. B. Guest University College
 Sgt. J. V. Guilford University College	 W. O. Gulston Victoria	 Capt. J. R. Gundy Victoria	 Capt. G. G. Gundy Medicine	 Lt. M. G. Gunn University College	 Lt. D. P. Guthrie University College	 Sgt. R. Watkins Veterinary
 Maj. H. N. Gzowski Applied Science	 Lt. J. E. Hagarty University College	 Lt. G. C. Hagedorn Applied Science	 Capt. J. W. Hage Dentistry	 Lt. R. J. Hague Applied Science	 Lt. A. P. Hais Education	 Capt. G. C. Hale Trinity
 Lt. E. K. Hall Applied Science	 S. J. C. Hall Medicine	 Sgt. R. W. Hall Dentistry	 2. Lt. C. P. Halliday Education	 Spr. C. R. Hames Applied Science	 Spr. A. E. Hamilton Applied Science	 Lt. G. M. Hamilton Applied Science
 2. Lt. J. Hamilton University College	 Cpl. A. Hampson Victoria	 Capt. J. Hanley Medicine	 Maj. W. J. Hanley University College	 Lt. J. Hamilton Applied Science	 Spr. J. Hanna University College	 Capt. J. Harcourt University College
 Capt. R. J. Hardstaff Medicine	 Cpl. W. G. Hardy Victoria	 Lt. H. R. Hargrave Medicine	 Cpl. G. E. Harper Dentistry	 Cpl. R. S. Harris Pharmacy	 Lt. J. Harris Trinity	 Cpl. J. J. Harrity University College





Lt. A. C. Hyde
Medicine

Lt. S. A. [Name]
Applied Science

S. Lt. P. [Name]
Applied Science

Lt. E. [Name]
Medicine

Cpl. F. [Name]
University

[Name]
Medicine

S. Lt. F. G. Huycke
Applied Science

Sgt. G. R. Hyde
Dentistry

Pte. [Name]
University

2. Lt. B. E. Ingham
Education

C. J. [Name]
Medicine

R. N. P. C. Innis
University College

Capt. G. [Name]
Medicine

R. N. P. C. Ireton
University College

[Name]
Applied Science

Sgr. L. C. [Name]
Victoria

Lt.-Col. T. C. Irving
Applied Science

Pte. J. E. Irwin
Dentistry

Capt. R. J. Irwin
Victoria

Pte. F. P. Jaker
Applied Science

Lt. C. [Name]
Applied Science

Capt. F. C. Jackson
Applied Science

C. B. Jackson
Trinity

Capt. [Name]
Medicine

Capt. A. B. James
Medicine

Lt. E. A. Jamieson
Applied Science

Capt. [Name]
Medicine

Lt. W. [Name]
Medicine

Capt. F. [Name]
Medicine

Maj. J. F. Janson
Forestry

Lt. [Name]
Medicine

Cnr. H. G. S. [Name]
University College

Lt. [Name]
Medicine

2. Lt. W. S. Jenkins
University College

Cnr. H. H. Jesson
Applied Science

Maj. A. [Name]
Dentistry

Capt. F. M. Johnson
Medicine

F. Lt. [Name]
Medicine

Sgt. Maj. A. Johnston
Victoria

Lt. B. K. Johnston
University College

Capt. E. [Name]
University College

Cnr. E. W. Johnston
Applied Science

Sgt. [Name]
Dentistry

[Name]
Applied Science

Lt. H. F. Johnston
Victoria

Capt. H. W. Johnston
Medicine

S. Lt. W. D. Johnston
Medicine

F. Lt. B. Johnstone
Education

Lt. [Name]
Education

[Name]
Medicine

Lt. E. H. [Name]
Education

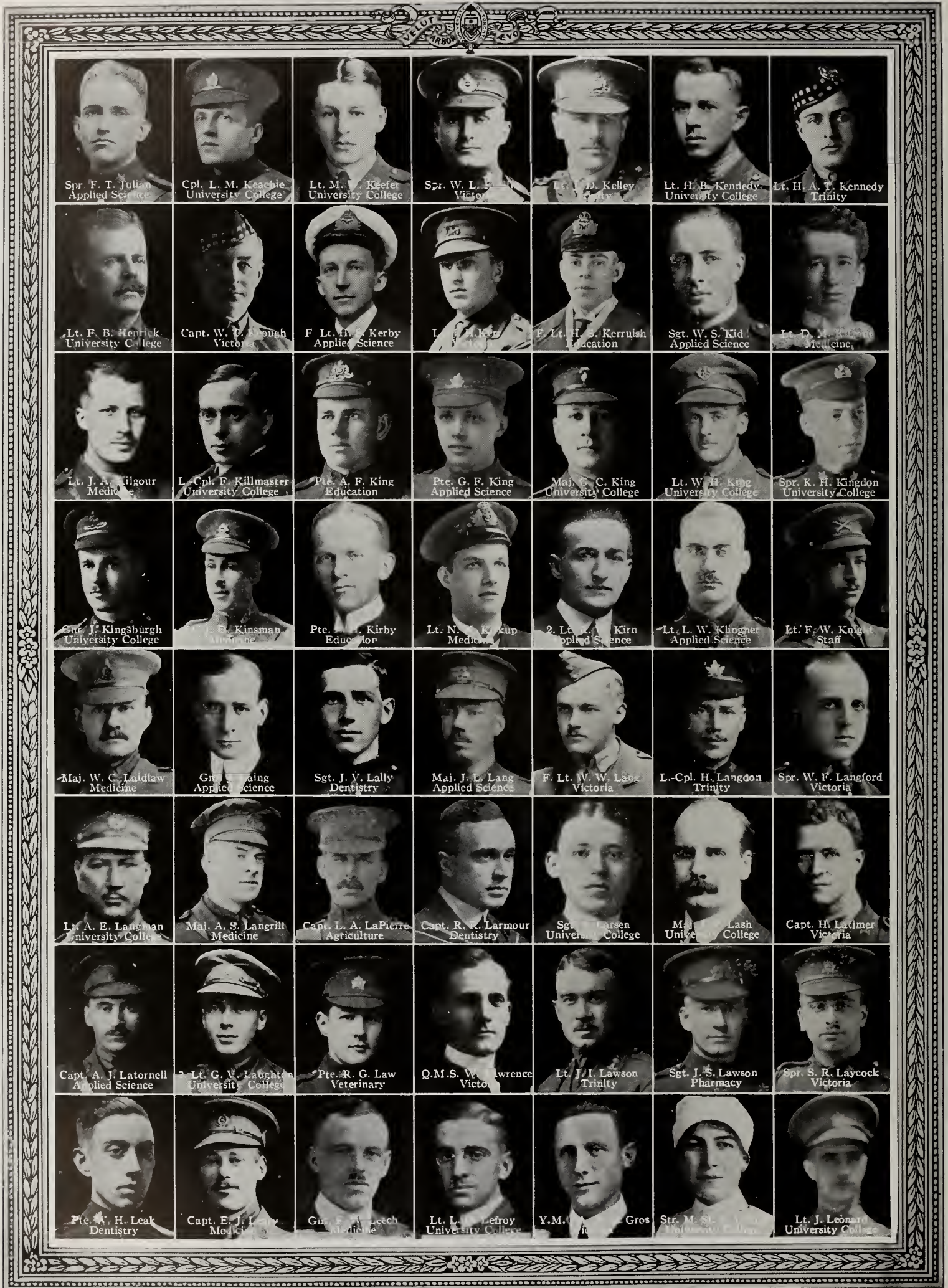
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Medicine

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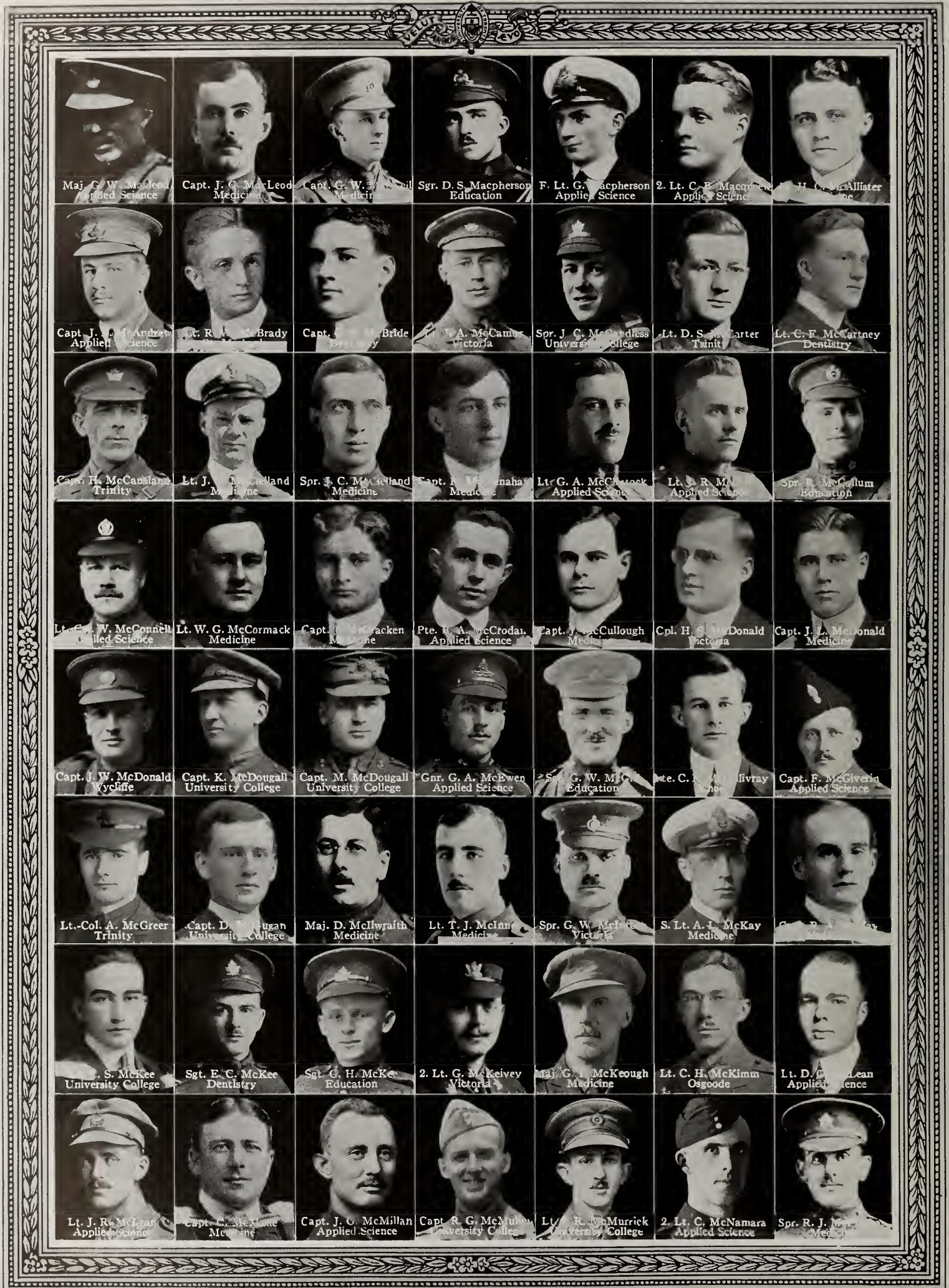
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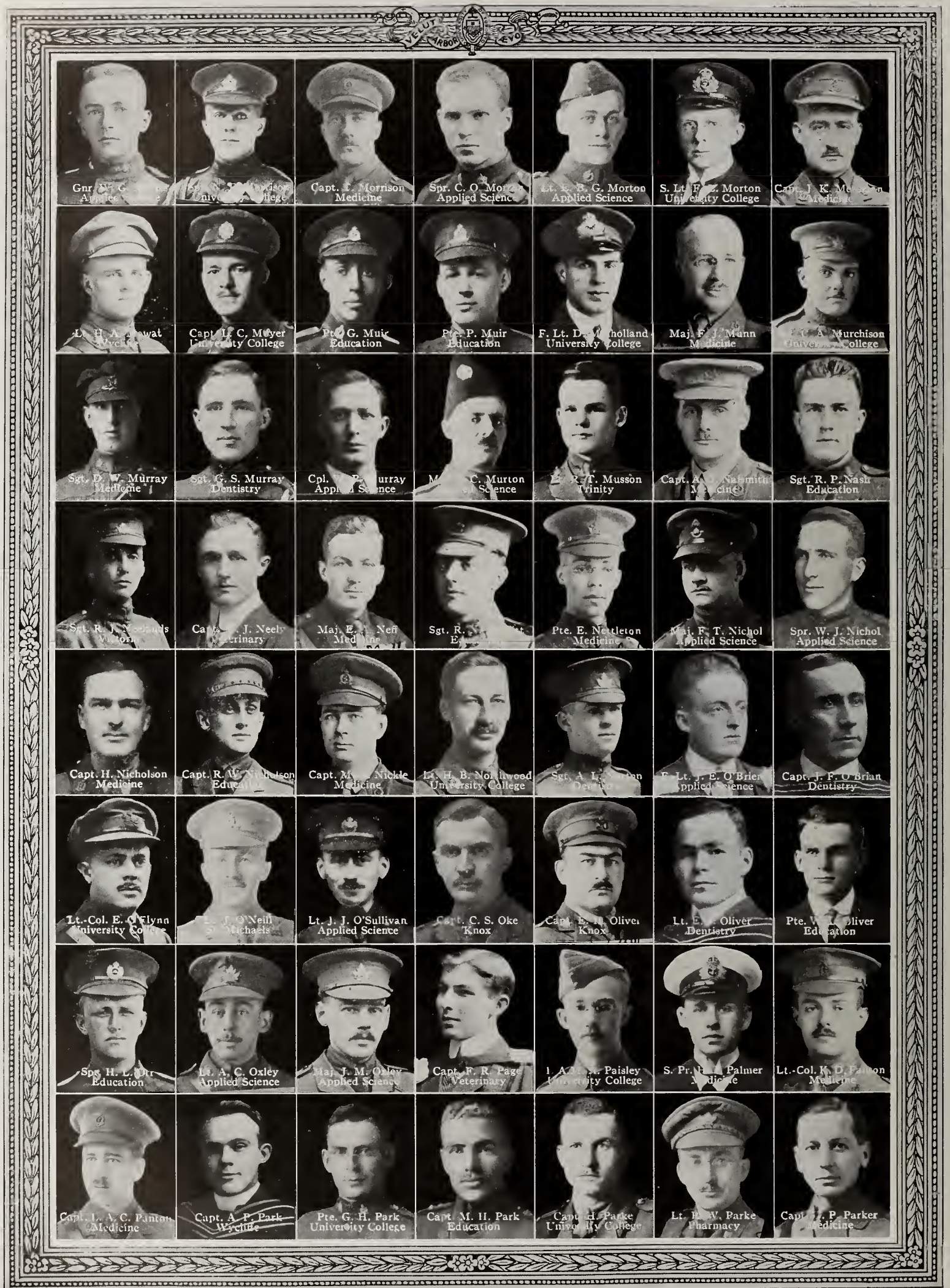




Capt. D. Leonard stry	Lt. C. F. Leslie Education	Capt. G. Leslie stry	Lt. W. B. Leslie Education	Capt. M. Leslie stry	Lt. Lightbourn Medicine	Capt. Lightbourn Medicine
Capt. A. P. Leslie Applied Science	Sgt. S. Linton Forestry	Capt. A. M. Linton Applied Science	2. Lt. H. Little Medicine	Capt. H. Little Medicine	Lt. N. Little Medicine	Capt. F. Little Medicine
2. Lt. R. Logan Applied Science	Capt. R. Logan Medicine	2. Lt. R. Logan Medicine	Cnr. R. Logan Medicine	Spr. R. K. Logan Victoria	Sgt. E. G. Longman University College	Cnr. Longstaff Science
Lt. W. E. Longworthy Applied Science	Capt. E. M. London University College	Spr. J. Lowe Medicine	Capt. J. Lowe Medicine	Pte. E. B. Lowndes University College	Lt. F. Lowry Medicine	Cnr. F. E. Lucas Wycliffe
2. Lt. O. Lye Applied Science	Cnr. G. M. Lye Medicine	Pte. J. MacCurdy University College	Lt. A. D. Macdonald Applied Science	Lt. F. Macdonald Applied Science	Capt. C. Macdonald Knox	Lt. N. J. Macdonald University College
Pte. R. MacKay Agriculture	Capt. W. Macdonald University College	Lt. C. S. Macdonald Medicine	Capt. N. MacEachren Knox	Lt. A. H. MacEachren Applied Science	Capt. A. MacGill Knox	Sgt. A. W. MacKay Dentistry
Lt. MacKay Medicine	Lt. Col. D. MacKenzie Medicine	Sgt. W. T. Mackenzie Pharmacy	Cnr. G. MacKenzie Medicine	Lt. J. MacKinnon Applied Science	Lt. G. MacKinnon Applied Science	Capt. R. MacKintosh Veterinary
Capt. C. MacLachlan Dentistry	Lt. J. W. McLaren Applied Science	Capt. A. F. MacLellan Applied Science	Lt. D. MacLellan Applied Science	Lt. A. MacLellan Applied Science	Maj. N. B. MacLellan University College	Capt. A. MacLellan Applied Science

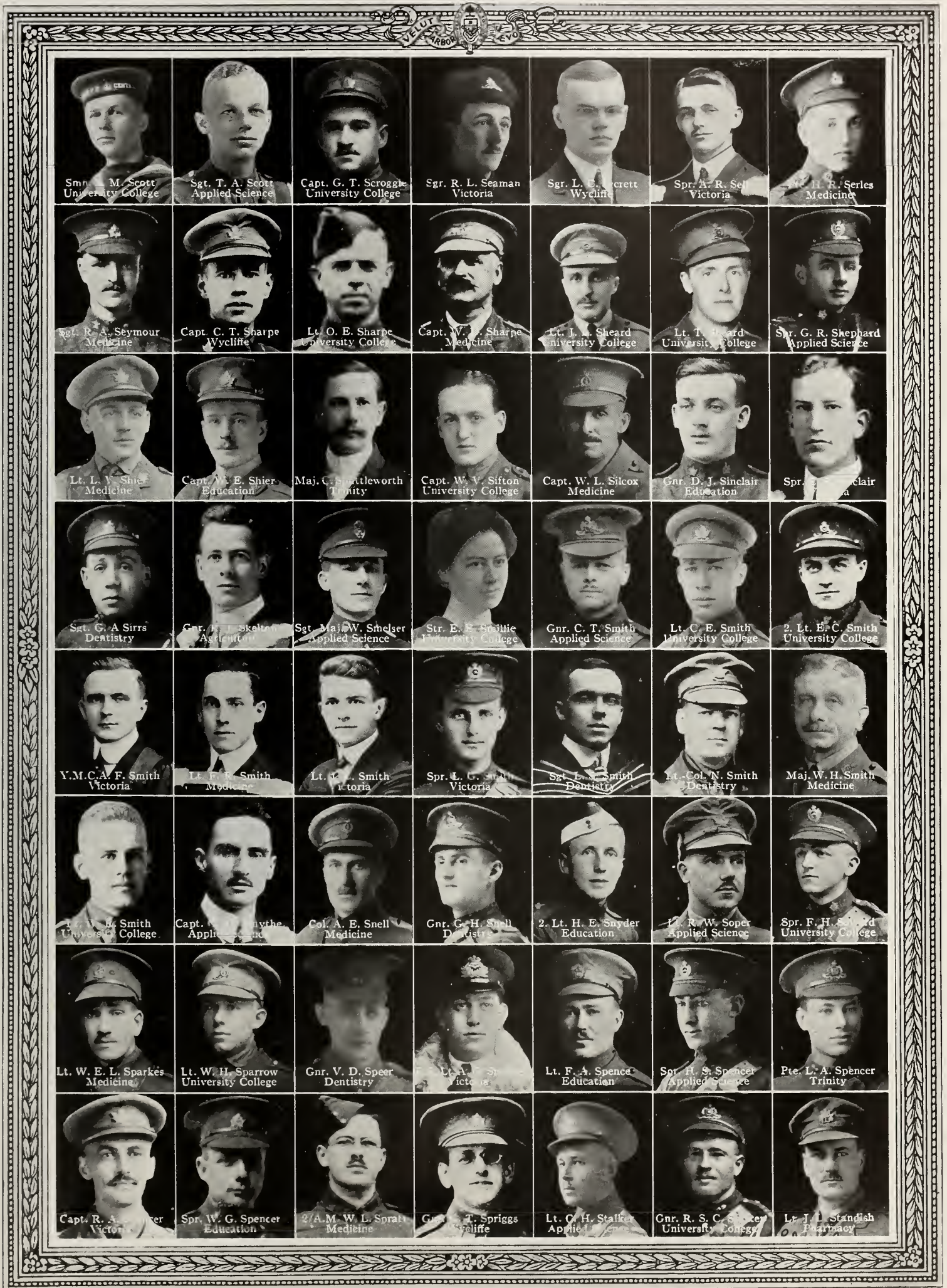


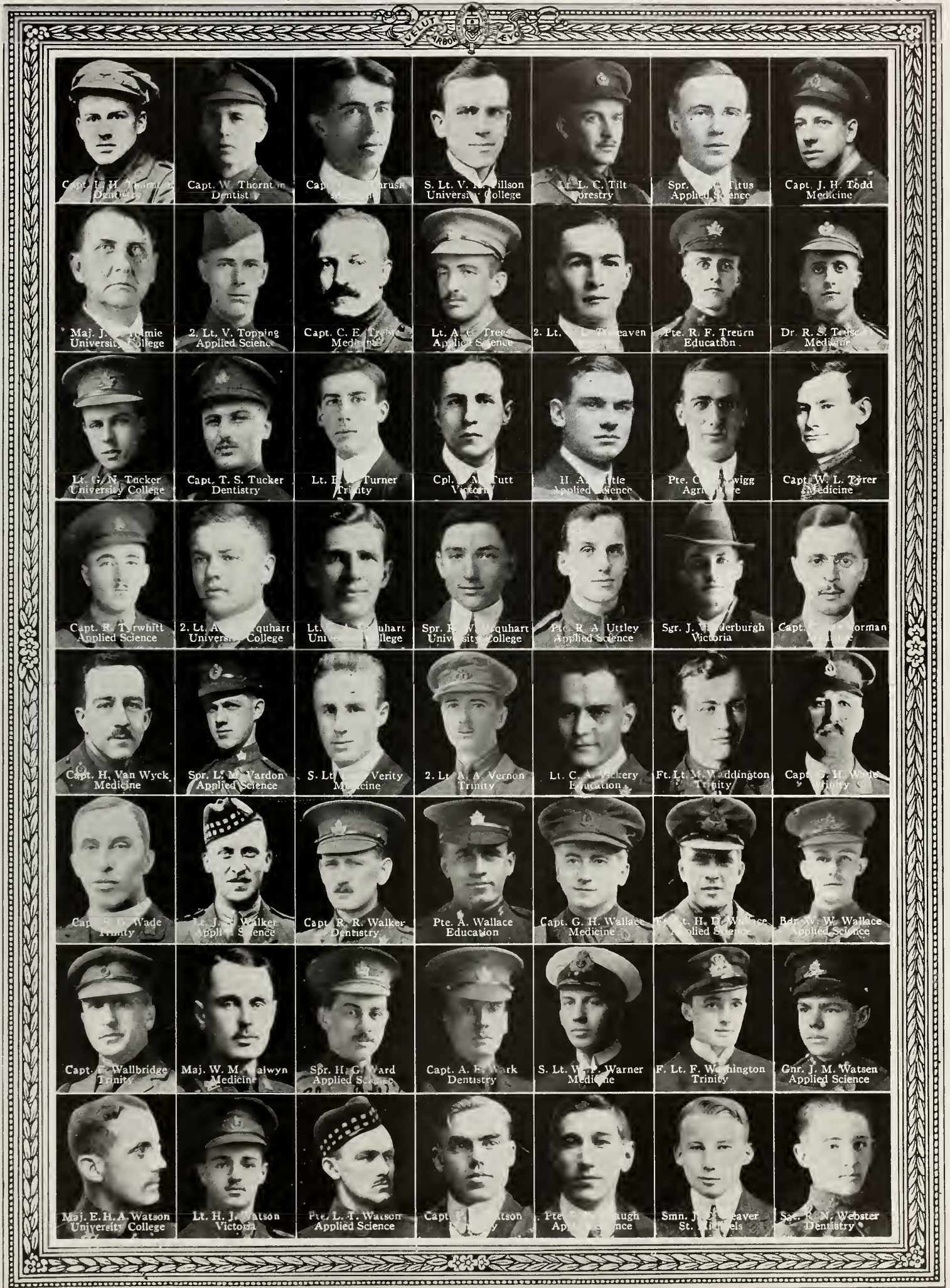




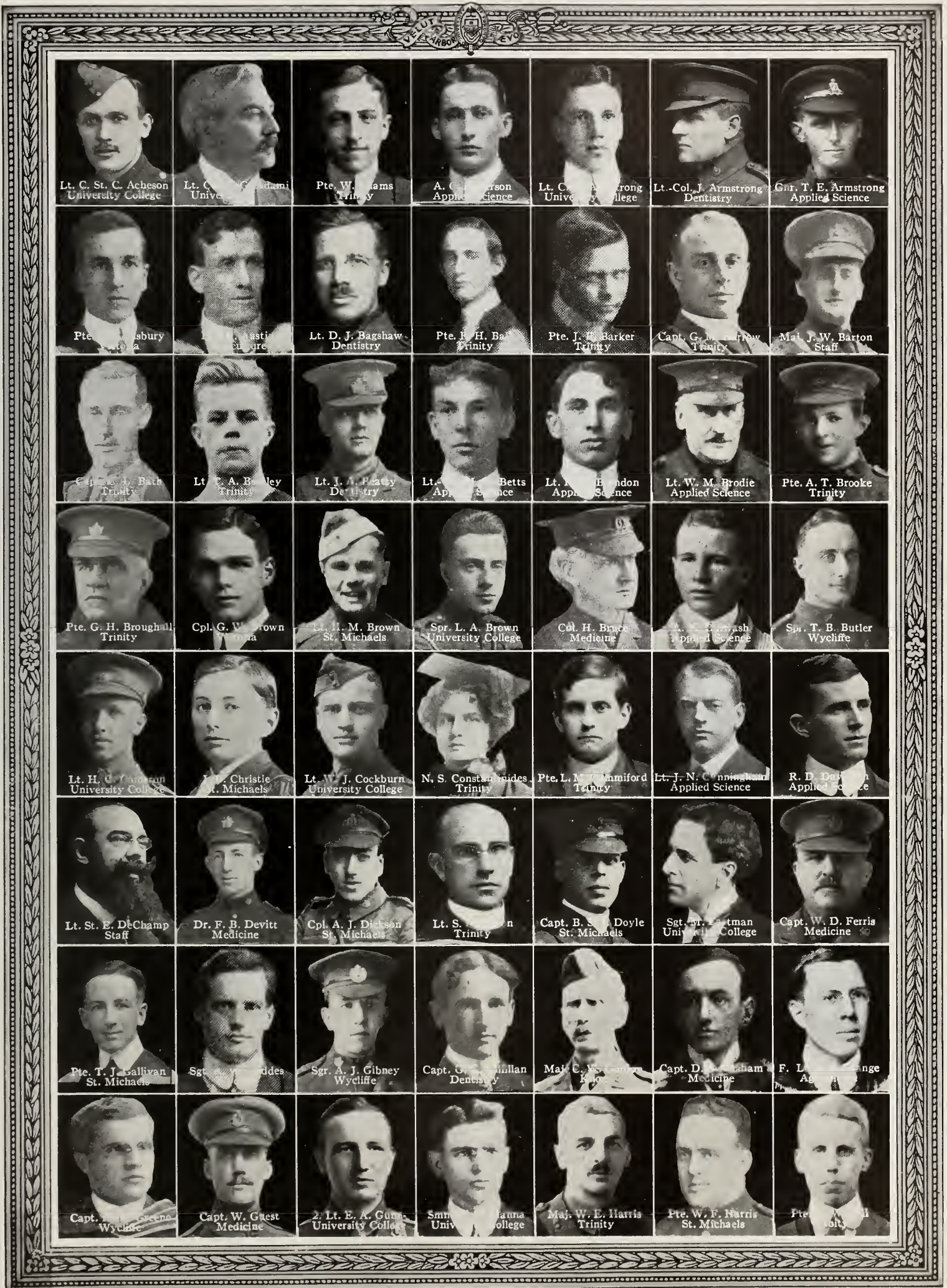












Lt. C. St. C. Acheson University College
 Lt. C.
 Pte. W.
 A. C.
 Lt. C.
 Lt.-Col. J. Armstrong Dentistry
 Gen. T. E. Armstrong Applied Science

Pte.
 Lt. D. J. Bagshaw Dentistry
 Pte. F. H. B. ... Trinity
 Pte. J. H. Barker Trinity
 Capt. G. ... Trinity
 Maj. J. W. Barton Staff

Capt.
 Lt. F. A. ... Trinity
 Lt. J. A. Peaty Dentistry
 Lt.
 Lt.
 Lt. W. M. Brodie Applied Science
 Pte. A. T. Brooke Trinity

Pte. G. H. Broughall Trinity
 Cpl. G.
 ... M. Brown St. Michaels
 Spr. L. A. Brown University College
 Col. H. Bruce Medicine

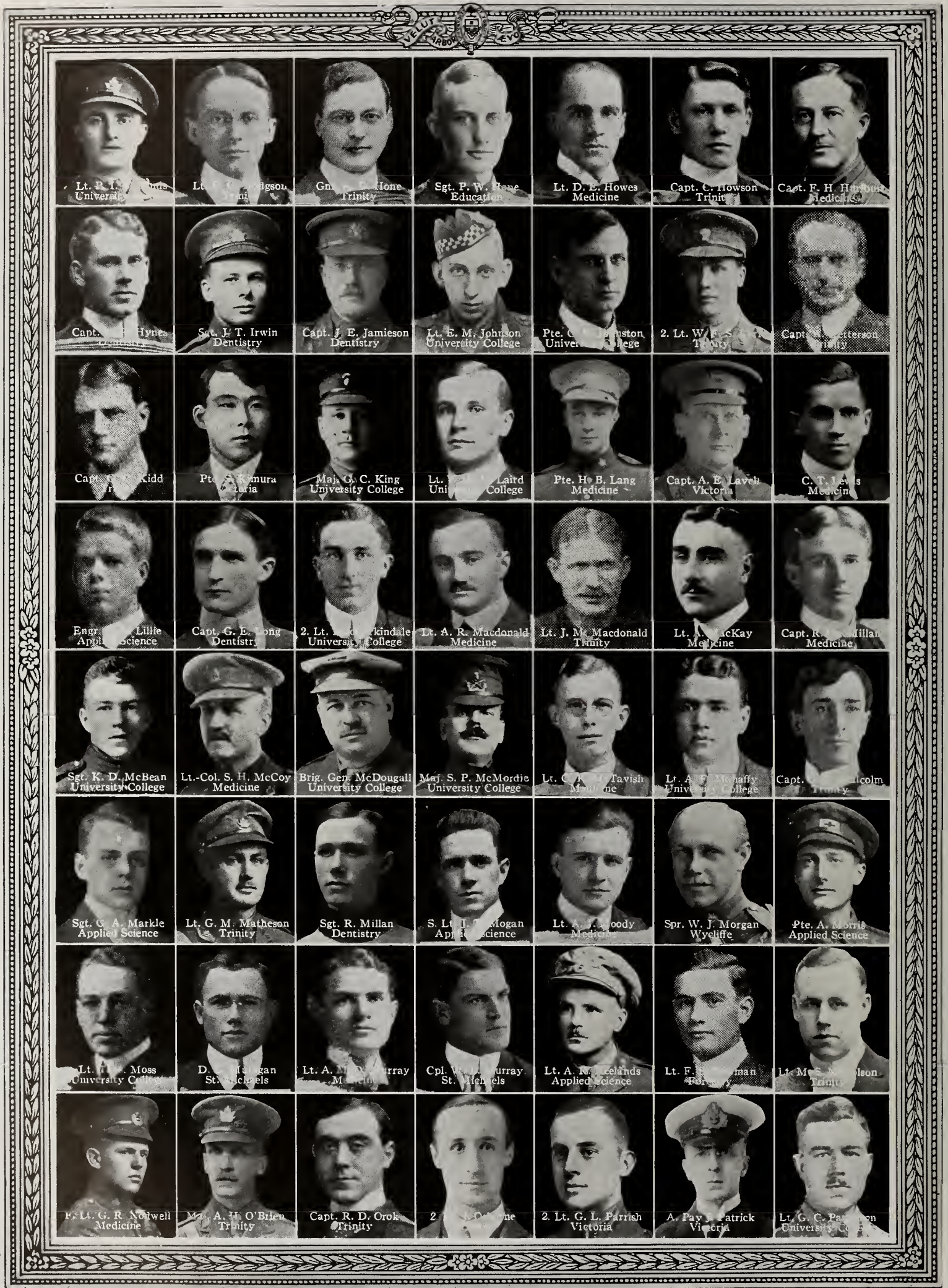
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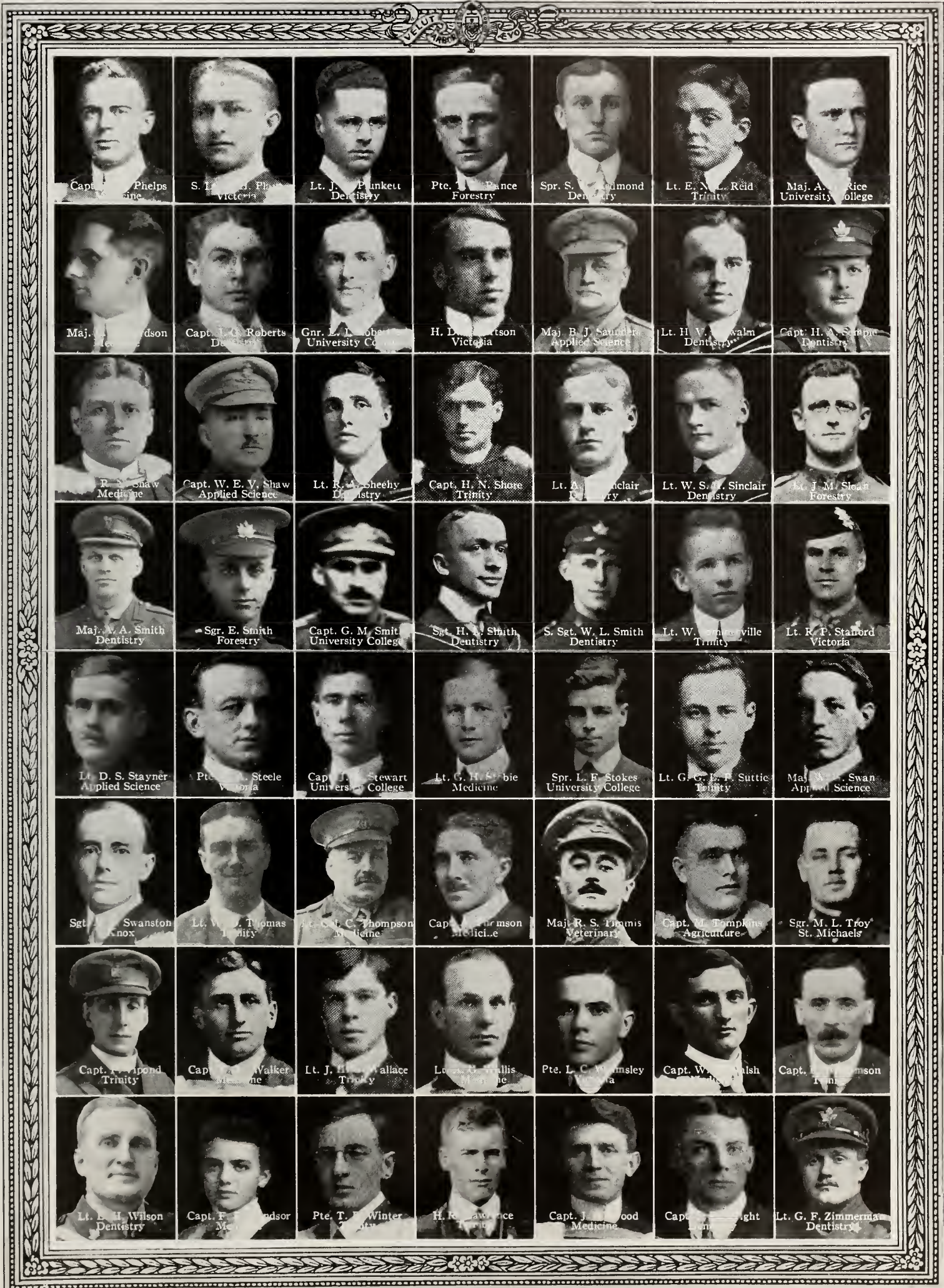
Lt. H. C. ... University College
 ... Christie St. Michaels
 Lt. W. J. Cockburn University College
 N. S. Constantinos Trinity
 Pte. L.
 Lt. J. N. ... Applied Science
 R. D. ... Applied Science

Lt. St. E. DeChamp Staff
 Dr. F. B. Devitt Medicine
 Cpl. A. J. Dickson St. Michaels
 Lt. S. ... Trinity
 Capt. B. ... Doyle St. Michaels
 Sgt.
 Capt. W. D. Ferris Medicine

Pte. T. J. Sullivan St. Michaels
 Sgt.
 Sgr. A. J. Gibney Wycliffe
 Capt. G. ... Millan Dentistry
 Maj. C.
 Capt. D.
 F. L.

Capt.
 Capt. W. Guest Medicine
 2. Lt. E. A. Gunn University College
 Snn
 Maj. W. E. Harris Trinity
 Pte. W. F. Harris St. Michaels
 Pte.





Capt. Phelps Trinity	S. I. Phelps Victoria	Lt. J. P. Pickett Dentistry	Pte. J. P. Pance Forestry	Spr. S. P. P. P. P. Dentistry	Lt. E. N. L. Reid Trinity	Maj. A. Rice University College
Maj. J. P. P. Trinity	Capt. J. P. Roberts Dentistry	Gnr. L. L. Roberts University College	H. D. P. P. Victoria	Maj. B. J. Saunders Applied Science	Lt. H. V. P. P. Dentistry	Capt. H. P. P. Dentistry
R. P. P. Medicine	Capt. W. E. V. Shaw Applied Science	Lt. R. P. P. Dentistry	Capt. H. N. Shore Trinity	Lt. A. P. P. Trinity	Lt. W. S. M. Sinclair Dentistry	Lt. J. M. Sloan Forestry
Maj. V. A. Smith Dentistry	Sgr. E. Smith Forestry	Capt. G. M. Smith University College	Sgt. H. P. Smith Dentistry	S. Sgt. W. L. Smith Dentistry	Lt. W. P. P. Trinity	Lt. R. P. Stanford Victoria
Lt. D. S. Stayner Applied Science	Pte. P. P. Steele Victoria	Capt. J. P. Stewart University College	Lt. G. H. P. Medicine	Spr. L. F. Stokes University College	Lt. G. P. P. Trinity	Maj. W. P. Swan Applied Science
Sgt. P. P. Swanston Trinity	Lt. V. P. Thomas Trinity	Lt. Col. C. P. Thompson Medicine	Capt. P. P. P. Medicine	Maj. R. S. Thomas Veterinary	Capt. P. P. P. Agriculture	Sgr. M. L. Troy St. Michaels
Capt. P. P. P. Trinity	Capt. P. P. Walker Medicine	Lt. J. P. Wallace Trinity	Lt. P. P. P. Medicine	Pte. L. C. Wamsley Victoria	Capt. W. P. Walsh Trinity	Capt. P. P. P. Trinity
Lt. B. H. Wilson Dentistry	Capt. P. P. P. Medicine	Pte. T. P. Winter Trinity	H. P. P. Trinity	Capt. J. P. Wood Medicine	Capt. P. P. P. Trinity	Lt. G. F. Zimmerman Dentistry

On Active Service

[The preceding photographic record of members of the University of Toronto on active service contains the photographs of those members whose portraits were not published in the Active Service Roll of the 1916 Edition of the VARSITY MAGAZINE SUPPLEMENT. The following printed list records the names of those whose photographs were not obtainable for the photographic records and is therefore supplementary to them. The three lists together make a complete record of members of the University of Toronto known to be on Active Service.—EDITOR.]

- Lt. H. J. M. Adams, Medicine.
 Bdr. J. N. Agnew, Applied Science.
 Lt. J. P. Aitkin, Agriculture.
 Lt. C. J. Allan, University College.
 Capt. C. W. Allen, Applied Science.
 L.-Cpl. F. R. Allen, Applied Science.
 Lt. F. G. Allen, Applied Science.
 Pte. L. A. Allen, Trinity.
 Sgt. L. A. Allen, Applied Science.
 N. S. L. G. Allen, Trinity.
 Lt. W. W. C. Alnack, Victoria.
 Maj. W. H. K. Anderson, Medicine.
 Lt. M. J. Andrews, Wycliffe.
 Capt. T. D. Archibald, Medicine.
 Col. D. J. Armour, Medicine.
 — H. E. Armstrong, Education.
 Lt. R. K. Armstrong, Applied Science.
 Lt. H. G. Arnold, Education.
 Capt. W. H. G. Aspland, Medicine.
 Lt. A. P. Augustine, Applied Science.
 Capt. A. C. Aylesworth, Victoria.
 Maj. W. Baillie, Medicine.
 Pte. W. H. Baines, Wycliffe.
 Lt. T. Barber, University College.
 Gnr. A. E. Barritt, University College.
 Capt. G. A. Bates, Medicine.
 Lt. G. C. Beaton, Education.
 Lt. R. E. Beith, Applied Science.
 Maj. C. C. Bell, Medicine.
 Pte. G. B. Bell, Applied Science.
 Capt. J. W. Bell, Dentistry.
 Capt. J. J. Bell, University College.
 Capt. T. H. Bell, Medicine.
 Capt. F. M. Bellsmith, Victoria.
 Gnr. O. W. Bennett, Agriculture.
 Sgt. Maj. R. C. Beswick, Applied Science.
 Lt. H. W. Bethune, Osgoode.
 Maj. S. P. Biggs, University College.
 — W. J. Black, Agriculture.
 Capt. G. G. Blackstock, Applied Science.
 Lt. W. G. Blackstock, University College.
 Maj. S. T. Blackwood, University College.
 Lt. F. J. Blair, Applied Science.
 Maj. E. W. H. Blake, University College.
 2. Lt. H. M. Blake, University College.
 Pte. J. H. M. Bond, Trinity.
 Capt. G. C. Bonnycastle, Dentistry.
 Capt. L. P. Booth, Trinity.
 Lt. O. B. Borne, Applied Science.
 Pte. H. E. Bowes, University College.
 Lt. I. Bowie, Trinity.
 Capt. W. D. Brace, Medicine.
 Pte. A. Bradstock, Trinity.
 Lt. S. G. Bright, Veterinary.
 — M. C. Brokenshire, Education.
 Spr. A. Brown, University College.
 Capt. C. Brown, Dentistry.
 Sgt. J. Brown, Dentistry.
 2. Lt. W. G. Brown, Applied Science.
 — W. J. Brown, Agriculture.
 Spr. J. R. Burgess, Applied Science.
 Lt. H. S. Burns, Medicine.
 Capt. W. A. Burns, Dentistry.
 Capt. F. Bushfield, Victoria.
 V.A.D. E. N. Butler, University College.
 — J. W. Button, Victoria.
 Capt. C. A. Campbell, Trinity.
 Capt. D. A. Campbell, Medicine.
 — G. C. Campbell, Applied Science.
 Capt. J. A. Campbell, Medicine.
 Maj. K. C. Campbell, Dentistry.
 Capt. T. C. Campbell, Trinity.
 Lt. A. B. Carley, University College.
 Lt. A. H. Carmichael, Applied Science.
 Capt. T. A. Carson, Medicine.
 F. Lt. J. J. Carter, Medicine.
 Lt. J. S. Chisholm, Medicine.
 Pte. F. W. Clarke, Applied Science.
 Capt. H. S. Clugston, University College.
 Capt. J. Coburn, Victoria.
- Sgt. E. W. Cocherline, Applied Science.
 Capt. T. Coleman, Medicine.
 Lt. H. B. Collet, Veterinary.
 Capt. H. L. Collins, Medicine.
 Lt. A. B. Colville, Trinity.
 Gnr. C. C. Cook, University College.
 Pte. E. Craig, Trinity.
 Lt. C. D. Creighton, University College.
 Sgt. R. B. Cumming, University College.
 Gnr. T. A. Daniel, Applied Science.
 2. Lt. G. R. Dashwood, Applied Science.
 Lt. A. J. de Lotbiniere, Forestry.
 M. Denison, Applied Science.
 Maj. O. T. Dinnick, Medicine.
 Lt. E. C. Dixon, Trinity.
 Lt. M. L. Dobbin, University College.
 — W. J. Doherty, Education.
 Lt. H. G. Donley, University College.
 Pte. H. L. Dougan, Victoria.
 — F. H. Downing, Applied Science.
 Capt. W. S. Drewry, University College.
 — E. Dudley, Education.
 Lt. R. L. Dudley, Dentistry.
 S. F. Duggan, Applied Science.
 Capt. A. E. Duncanson, Applied Science.
 Pte. A. S. Dunn, Medicine.
 Lt. J. N. Dunning, Dentistry.
 Capt. E. C. Earp, Wycliffe.
 2. Lt. E. Edwards, Staff.
 Lt. E. W. Edwards, Victoria.
 — A. E. Elliott, Victoria.
 — A. H. Elliott, Education.
 Sgt. E. V. Elliott, Dentistry.
 — F. W. Elliott, Education.
 Maj. H. C. Elliott, Trinity.
 Lt. M. S. Elliott, Victoria.
 — E. G. Ellis, Medicine.
 Brig.-Gen. J. F. L. Embury, University College.
 C. M. Ewing, Education.
 Sgt. W. H. Fair, Victoria.
 Capt. A. C. Farrell, Victoria.
 Pte. L. C. Fauvel, Wycliffe.
 Srg. Pbr. T. B. Feick, Medicine.
 Lt. K. G. Feiling, Staff.
 Capt. F. W. Fell, Dentistry.
 Lt. K. C. Fellows, Applied Science.
 Capt. T. W. Ferguson, Trinity.
 Lt. G. A. Fergusson, Victoria.
 Spr. M. M. Fisher, Education.
 Capt. J. P. Fitzgerald, St. Michaels.
 Capt. J. E. Flavell, University College.
 Capt. A. G. Fletcher, Trinity.
 Lt. H. M. Fletcher, Applied Science.
 Pte. J. H. Forman, Applied Science.
 Capt. W. Forsyth, Veterinary.
 Lt. R. W. Frank, Dentistry.
 Capt. J. V. Frasier, Medicine.
 Capt. C. W. Freeman, University College.
 L.-Cpl. W. G. Garden, Staff.
 Gnr. W. G. Garlick, Agriculture.
 Lt. A. R. Gibson, Education.
 Capt. M. H. Gillam, University College.
 Pte. A. H. Gillespie, University College.
 Lt. F. Glover, Applied Science.
 Maj. G. B. Gordon, Trinity.
 Lt. J. A. Gordon, University College.
 Ct. R. J. Goss, University College.
 Capt. G. Gow, Dentistry.
 Lt.-Col. W. Gow, Trinity.
 Lt. E. V. Graham, Medicine.
 Capt. G. W. Graham, Medicine.
 Capt. A. Gray, Applied Science.
 Maj. J. E. Gray, Applied Science.
 Lt. L. M. Green, Victoria.
 Maj. G. E. Greenway, Medicine.
 Lt. A. Greey, Applied Science.
 — W. P. Grieve, Education.
 Pte. A. W. Groves, Applied Science.
 Lt. R. Gunn, Agriculture.
 Capt. W. T. Hackett, Dentistry.
- Capt. W. F. Hadley, Applied Science.
 — R. W. E. Hagarty, Applied Science.
 Capt. E. A. Hall, Trinity.
 — E. R. Hall, Agriculture.
 Capt. G. W. Hall, Trinity.
 Lt. T. D. Hallam, University College.
 Lt. H. K. Hamilton, University College.
 — W. G. Hammond, Education.
 — W. Hand, St. Michaels.
 Spr. G. F. Hanmer, Victoria.
 F.S. Lt. J. A. Harman, Applied Science.
 Maj. F. C. St. B. Harrison, Agriculture.
 Capt. T. L. Harrison, Medicine.
 Sgt. W. J. E. Harriss, Wycliffe.
 Capt. O. G. Hassard, Dentistry.
 — J. A. M. Hay, Education.
 Capt. W. Y. Hayden, Dentistry.
 Maj. G. S. Haynes, Applied Science.
 Pte. C. A. Heaven, Trinity.
 Pte. J. Heddleston, Agriculture.
 Spr. G. M. Heisz, Dentistry.
 Lt. F. C. Henderson, Victoria.
 Lt. J. F. Henderson, Applied Science.
 — O. J. Henderson, Education.
 Lt. T. D. Henderson, Applied Science.
 Lt. W. R. Hermeston, University College.
 Lt. E. C. Hessel, Agriculture.
 Lt. G. C. Heward, Trinity.
 Lt. C. H. Hewson, Victoria.
 Lt. A. V. Hill, Applied Science.
 Lt. E. F. Hinch, Applied Science.
 Capt. H. J. Hodgins, Dentistry.
 Maj.-Gen. W. E. Hodgins, University College.
 Capt. J. E. Holmes, Dentistry.
 Lt. A. E. Honeywell, University College.
 Pte. H. R. Hopkins, Applied Science.
 Capt. H. A. Hoskin, Dentistry.
 Spr. R. S. Hosking, Victoria.
 Lt. W. J. Houston, Education.
 — H. L. Humphrey, Victoria.
 Capt. E. W. Huntingford, Staff.
 Capt. C. G. Imrie, Medicine.
 Ft. S. Lt. L. H. Ingersoll, Applied Science.
 Lt. R. Ingram, Medicine.
 Maj. L. E. Irving, Trinity.
 S. Lt. W. J. Irwin, University College.
 Lt. T. B. Jack, Applied Science.
 Lt. H. Jackson, Dentistry.
 — J. S. Jackson, Education.
 Capt. A. E. Jamieson, Trinity.
 — H. W. Jamieson, Education.
 Spr. G. R. Jardine, Applied Science.
 — H. A. Johnson, Applied Science.
 Capt. S. M. Johnson, Applied Science.
 Capt. A. C. Johnston, Trinity.
 Sgt. G. W. F. Johnston, Applied Science.
 Gnr. J. T. Johnston, Agriculture.
 Pte. A. W. Jones, Dentistry.
 Spr. C. A. Jones, University College.
 Maj. N. C. Jones, Trinity.
 S. Lt. R. E. Joyce, Medicine.
 Capt. N. M. Keith, University College.
 Lt. H. G. Kennedy, Applied Science.
 Capt. H. B. Kenny, Victoria.
 — C. G. Kilty, Education.
 Capt. A. Kinghorn, Medicine.
 Maj. W. F. Kirk, Education.
 Capt. F. H. Kortwright, Applied Science.
 Lt. N. D. Kyle, Medicine.
 Pte. A. N. Laidlaw, Dentistry.
 Capt. R. K. Lambert, Victoria.
 Lt. W. H. Lambert, Medicine.
 Sgt. A. T. Lawless, St. Michaels.
 Lt. H. R. Lawrence, Trinity.
 — C. W. Lea, University College.
 Capt. F. E. W. Leacock, Medicine.
 Lt. R. C. Lee, Applied Science.
 Pte. H. D. Leppan, Agriculture.
 Gnr. R. L. Lewis, Staff.
 Capt. H. M. Little, University College.

- Spr. L. S. Locke, Victoria.
 Sgt. V. C. Long, Dentistry.
 Pte. L. Lord, Agriculture.
 Pte. A. M. Low, Wycliffe.
 Capt. W. H. Lowry, Trinity.
 Lt. M. F. Lucas, Trinity.
 Pte. S. H. Luther, Forestry.
 Sgt. J. P. Lynes, Dentistry.
 — J. MacClinton, Education.
 Lt. H. H. Macdonald, Applied Science.
 — T. A. MacDonald, Education.
 Capt. C. M. MacKay, Medicine.
 Pte. A. P. MacKenzie, Applied Science.
 Lt. R. MacKinlay, Medicine.
 Lt. H. MacLaren, Medicine.
 Lt. H. John MacLaren, Applied Science.
 Capt. R. Macnamara, Wycliffe.
 Lt. A. W. MacPherson, Medicine.
 Lt. A. L. McAllister, Applied Science.
 Sgt. E. S. McBride, Dentistry.
 Lt. J. McBride, Veterinary.
 Gnr. R. H. McCabe, Education.
 Lt. H. H. D. McCart, Medicine.
 Capt. W. A. McClelland, Medicine.
 Capt. D. A. McClenahan, Medicine.
 Pte. J. L. McComber, University College.
 Lt.-Col. Thomas McCrae, Medicine.
 Sgt. H. J. McCreery, Applied Science.
 Lt. K. H. McCrimmon, University College.
 — J. L. McCullough, Education.
 Capt. G. A. McDiarmid, Medicine.
 Pte. J. H. McDonald, Education.
 — W. McGregor, Education.
 — H. W. McIntosh, Education.
 — N. W. McIntosh, Education.
 Capt. W. A. McIntosh, Trinity.
 Capt. R. E. McKibbin, Medicine.
 Sgt. A. L. McKinnon, Education.
 S. Lt. G. B. McLaren, University College.
 Lt. W. H. McLaren, Dentistry.
 Lt. R. Van N. McLaughlin, Dentistry.
 Capt. J. D. McLean, Trinity.
 Lt. J. G. McLean, Applied Science.
 Capt. J. L. McLean, Dentistry.
 Maj. W. T. McLean, Medicine.
 Capt. N. McLeod, Medicine.
 Capt. H. C. McMordie, Applied Science.
 Capt. W. H. McNally, Dentistry.
 Capt. O. A. McNichol, Trinity.
 Sgt. P. H. McNichol, Dentistry.
 Capt. G. A. McPherson, Medicine.
 Sgt. J. L. McPherson, University College.
 Capt. J. R. McRae, Trinity.
 Maj. H. G. McVean, Applied Science.
 Lt. G. B. Macaulay, Applied Science.
 Lt. A. H. Macklin, Medicine.
 Pte. C. O. Maddock, Applied Science.
 Lt. W. J. M. Marcy, Medicine.
 Lt. A. E. Marck, Dentistry.
 Pte. R. B. Marr, Education.
 Lt. H. J. Marshall, Applied Science.
 Lt. F. J. S. Martin, Trinity.
 Capt. J. E. Martin, Trinity.
 Pte. S. F. Mather, University College.
 Pte. W. A. Maynard, Pharmacy.
 Sgr. G. G. Membership, Trinity.
 Lt. S. N. M. Messina, University College.
 Spr. M. E. Millar, Medicine.
 Gnr. W. J. Miller, Agriculture.
 S. Lt. W. H. Miller, Medicine.
 Capt. H. T. Minogue, Dentistry.
 Lt. F. Leslie Mitchell, Applied Science.
 Lt.-Cpl. R. E. Mitchell, University College.
 Pte. A. E. Mix, Applied Science.
 Gnr. V. G. Mollins, University College.
 Lt. W. Monds, Applied Science.
 Sgt. J. G. Montgomery, Dentistry.
 Lt. C. H. Moore, Dentistry.
 Gnr. E. L. Moorehouse, Applied Science.
 Lt. W. Moran, University College.
 Pte. R. N. Morgan, Agriculture.
 Lt. G. W. Morley, Trinity.
 Pte. J. F. G. Morris, Victoria.
 Cpl. W. A. Morrison, Victoria.
 Lt. N. Morton, Medicine.
 Capt. H. H. Moshier, Medicine.
 Lt.-Cpl. D. G. Mounteer, Victoria.
 Maj. H. S. Muckleston, Trinity.
 S.-Lt. H. J. Muir, Medicine.
 Capt. A. E. Mullin, Dentistry.
 Lt. W. P. Mulock, University College.
 Sgt. J. A. Munn, Dentistry.
 Lt. G. A. Munro, Dentistry.
 Sgt. R. E. K. Neelands, Applied Science.
 Capt. D. B. Neely, Medicine.
 Lt. R. H. New, Applied Science.
 Pte. W. G. Noble, Victoria.
 Maj. H. G. Nyblett, Trinity.
 — J. J. O'Connor, St. Michaels.
 — T. S. O'Connor, St. Michaels.
 Pte. J. G. O'Flaherty, Applied Science.
 Lt. J. M. DeC. O'Grady, University College.
 S. Sgt. F. J. O'Leary, Medicine.
 Maj. E. B. O'Reilly, Trinity.
 Gnr. J. M. Ogilvie, Medicine.
 Capt. J. P. Oliver, Applied Science.
 Maj. G. M. Orr, University College.
 Pte. L. D. Orr, Pharmacy.
 Lt.-Col. H. C. Osborne, Trinity.
 Lt.-Col. W. Osler, Trinity.
 Pte. D. Papa, Victoria.
 A.M. R. T. Park, Applied Science.
 Capt. J. R. Parry, Medicine.
 Pte. C. F. Pashler, Trinity.
 Sgt. E. B. Paterson, Pharmacy.
 Sgt. Maj. G. S. Patterson, Victoria.
 Capt. T. A. Patterson, Victoria.
 Capt. R. A. Paul, Applied Science.
 Capt. R. McD. Peacock, Dentistry.
 — G. A. Pearson, Education.
 Sgt. C. A. Pengelley, Pharmacy.
 Pte. L. D. Pengelly, Wycliffe.
 Gnr. C. A. E. Pentland, Victoria.
 Lt.-Col. T. E. Perrett, Victoria.
 2. Lt. A. MacM. Phillips, Applied Science.
 — F. S. Phillips, Education.
 Lt. J. O. Plummer, Trinity.
 Lt. G. G. Pook, Veterinary.
 Sgt. Maj. L. A. M. Porter, Applied Science.
 Lt. Wm. A. Porter, Dentistry.
 Lt. E. E. Price, Trinity.
 Lt. H. S. Price, University College.
 Spr. H. E. Purdy, Applied Science.
 S. Lt. H. J. Quinn, Medicine.
 Lt. E. C. Rainboth, University College.
 Lt. C. C. Ramage, Dentistry.
 Lt. A. R. Ramsey, University College.
 Lt.-Col. J. P. Rankin, Trinity.
 Capt. R. R. Rankin, Medicine.
 Lt. W. H. Reid, Dentistry.
 Pte. C. A. Richardson, Applied Science.
 Capt. C. C. Richardson, Medicine.
 Capt. E. F. Richardson, Medicine.
 Lt. A. R. Richmond, Veterinary.
 Sgr. W. B. Ririe, Victoria.
 Lt. T. F. Roach, St. Michaels.
 Capt. H. E. Roaf, Medicine.
 Maj. J. R. Roaf, Applied Science.
 Maj. N. R. Robertson, Applied Science.
 N. Instr. A. F. Robinson, University College.
 N. S. C. Robinson, Trinity.
 Capt. D. S. Robinson, Trinity.
 Pte. C. E. Rogers, Forestry.
 Capt. A. H. Rolph, University College.
 Lt. F. A. Ross, Medicine.
 Capt. G. W. Ross, Medicine.
 Spr. J. W. Ross, University College.
 Capt. M. N. Ross, Agriculture.
 Lt. O. W. Ross, Applied Science.
 Pte. R. Ross, Medicine.
 Lt. E. McL. Rowan, University College.
 N.S. E. B. Ruddy, University College.
 Pte. J. G. Russell, Victoria.
 Cpl. R. V. Russell, Education.
 — F. N. Rutherford, Applied Science.
 Lt. N. H. Rutherford, Dentistry.
 Lt. W. J. Rutherford, Dentistry.
 2. Lt. G. V. Ryckman, University College.
 Capt. R. D. Sanson, Trinity.
 Capt. C. G. Saunders, Veterinary.
 Capt. E. Scarlett, Medicine.
 Spr. C. E. Scarrow, Victoria.
 Maj. N. Schnarr, Dentistry.
 Lt. D. M. Scott, University College.
 — F. McD. Scott, Education.
 — F. W. Scott, Education.
 Capt. G. A. Scott, University College.
 Maj. H. M. Scott, Agriculture.
 Lt.-Cpl. W. J. Scott, Medicine.
 Lt. H. V. Serson, Applied Science.
 Lt. S. L. Shannon, University College.
 Lt.-Col. S. S. Sharpe, University College.
 Maj. F. P. Shaw, Dentistry.
 Capt. G. M. Shaw, Medicine.
 Capt. N. S. Shenstone, University College.
 Lt. E. C. Sheppard, University College.
 Pte. H. N. Sheppard, Victoria.
 Maj. N. C. Sherman, Applied Science.
 Maj. W. J. Shortreed, University College.
 Lt.-Col. C. H. Sills, Trinity.
 Capt. S. H. Simpson, Dentistry.
 — H. B. Sims, Applied Science.
 Pte. L. C. Sinclair, Education.
 Sgt. G. H. Sloan, Dentistry.
 Pte. O. H. Sloan, Dentistry.
 Capt. R. R. Sloan, Agriculture.
 Lt. J. G. M. Sloane, Medicine.
 Capt. A. H. Smith, Applied Science.
 Cpl. D. A. Smith, Applied Science.
 Lt. F. H. Smith, University College.
 Sgt. F. L. Smith, Applied Science.
 Lt. G. W. M. Smith, Trinity.
 — J. L. Smith, Forestry.
 Capt. R. H. Smith, Medicine.
 Lt. W. L. Smith, University College.
 Lt. G. B. Snow, Applied Science.
 2. Lt. I. E. Soule, University College.
 Capt. E. C. Southey, Trinity.
 Capt. G. L. Sparks, Medicine.
 Capt. W. H. H. Sparks, Wycliffe.
 Pte. H. E. Spaulding, Education.
 Pte. J. T. Speck, Medicine.
 Capt. P. D. Spohn, Medicine.
 Capt. F. W. Squire, Trinity.
 Pte. R. J. Stallwood, Victoria.
 Capt. C. L. B. Stammers, Trinity.
 Maj. G. L. Starr, Trinity.
 2. Lt. P. L. Stevens, Applied Science.
 Pte. G. H. Stevenson, Medicine.
 2. Lt. P. B. Stevenson, Education.
 — D. L. M. Stewart, Applied Science.
 — H. Stewart, University College.
 Lt. Gordon P. Stirrett, Applied Science.
 Capt. J. G. R. Stone, Medicine.
 Capt. C. B. Stover, Dentistry.
 Sgt. J. G. Strachan, Medicine.
 Capt. D. Stratton, Dentistry.
 Lt. H. J. Stuart, University College.
 Lt. E. J. Stubbs, Medicine.
 Lt. J. W. Sutherland, Medicine.
 Dr. W. F. B. Sutherland, Applied Science.
 Pte. A. A. Swinnerton, Applied Science.
 2. Lt. J. E. Sydie, University College.
 Sgt. F. Tamblin, Education.
 2. Lt. J. R. Tansey, Applied Science.
 Gnr. E. H. Taylor, University College.
 Sgt. H. D. Taylor, Dentistry.
 — M. F. Taylor, Education.
 Lt. N. B. Taylor, Medicine.
 Lt. R. Taylor, Applied Science.
 Capt. C. A. Temple, Trinity.
 Lt. R. H. Thomas, Medicine.
 Gnr. E. Thompson, University College.
 Capt. E. L. Thompson, Dentistry.
 Capt. H. P. Thompson, Dentistry.
 Maj. P. W. Thompson, Medicine.
 Gnr. S. Thompson, Agriculture.
 Maj. C. G. Thomson, Medicine.
 Capt. S. M. Thorne, Applied Science.
 — S. R. Tompkins, University College.
 Lt.-Col. R. E. Towers, University College.
 Lt. N. H. Treadwell, University College.
 — J. R. Trumpour, Victoria.
 Pte. G. C. Turner, Wycliffe.
 Pte. H. Turner, University College.
 — W. F. Twohey, University College.
 Maj. W. H. Tytler, Medicine.
 Lt. J. N. Valentine, Veterinary.
 Lt.-Col. F. L. Vaux, Trinity.
 Lt. H. D. Veitch, Medicine.
 Lt. R. J. Vickers, Veterinary.
 Sgt. W. W. Vosden, Dentistry.
 Lt. C. S. Wainwright, Medicine.
 Lt. C. W. Walker, Medicine.
 Capt. H. E. Wallace, Trinity.
 Capt. H. J. Wallace, Victoria.
 Capt. N. C. Wallace, Medicine.
 Capt. J. J. Walters, Medicine.
 Sgt. A. H. Walton, Dentistry.
 Pte. I. J. Warren, Pharmacy.
 Pte. R. W. Warwick, Applied Science.
 — P. G. Welford, Applied Science.
 Lt. A. M. West, Applied Science.
 Lt. J. W. Wheeler, Trinity.
 — W. C. White, Medicine.
 Lt. G. Whitehead, Veterinary.
 Spr. F. E. Wickham, Medicine.
 Capt. D. St. J. Wible, Medicine.
 Sgt. E. S. Wible, University College.
 Sgt. R. H. Wilkie, University College.
 Lt.-Col. C. G. Williams, Victoria.
 2. Lt. E. R. Williams, Applied Science.
 Lt. R. W. Hodder Williams, Staff.
 Lt. F. L. Williamson, Dentistry.
 Lt. W. S. Willson, Applied Science.

Lt. D. D. Wilson, Dentistry.
Cpl. D. G. Wilson, Medicine.
Capt. J. M. Wilson, Dentistry.
Cpl. J. S. Wilson, Applied Science.
Maj. N. R. Wilson, Victoria.

Lt. W. S. Wilson, Applied Science.
Capt. A. W. Winnett, Dentistry.
Bdr. J. H. Winslow, Agriculture.
—L. Withrow, Applied Science.
2. Lt. E. H. G. Worden, Education.

Maj. A. N. Worthington, Applied Science.
Col. E. S. Worthington, Trinity.
Capt. J. T. Wright, Trinity.
Capt. E. H. Young, Medicine.
Capt. E. R. Zimmerman, Dentistry.

Military Honours Won by Members of the University of Toronto

[The following list of Honours is a summary from the Roll of Service issued by the University and covers the period from August 1914 to December 1917. As additional honours are being frequently awarded it will be understood that there may be other names which should appear in this list.—EDITOR.]

VICTORIA CROSS.

Maj. T. W. MacDowell.
Lt. J. M. Reid.

C.M.G.

Lt.-Col. J. A. Amyot.
Brig.-Gen. E. C. Ashton.
Brig.-Gen. J. F. L. Embury.
Surg.-Gen. J. T. Fotheringham.
Ass't. Adj. Gen. C. S. MacInnes.
Col. D. W. McPherson.
Lt.-Col. C. H. Mitchell.
Col. G. G. Nasmith.
Brig. Gen. V. W. Odlum.
Col. W. A. Scott.
Col. R. H. Steacy.

C.B.

Maj.-Gen. M. S. Mercer.
Col. J. A. Roberts.

D.S.O.

Lt.-Col. C. W. Allen.
Capt. G. W. Armstrong.
Lt.-Col. R. H. Britton.*
Lt. S. S. Burnham.
Lt.-Col. J. A. Clark.
Lt.-Col. F. F. Clarke.
Maj. G. A. Cline.
Lt.-Col. F. T. Coghlan.
Maj. C. A. Corrigan.
Lt.-Col. J. E. Davey.
Lt.-Col. H. J. Dawson.
Maj. W. W. Denison.
Maj. D. K. Edgar.
Lt.-Col. J. J. Fraser.
Maj. H. W. A. Foster.
Maj. T. Gibson.
Lt.-Col. E. B. Hardy.
Lt.-Col. W. B. Hendry.
Maj. H. F. H. Hertzberg.
Maj. L. E. W. Irving.
Lt.-Col. T. C. Irving.*
Maj. J. T. Janson.
Lt.-Col. L. E. Jones.
Capt. C. E. Kilmer.
Lt. W. H. King.
Lt. A. G. Knight.*
Capt. C. B. Lindsey.
Maj. T. W. MacDowell.
Lt.-Col. C. H. Maclarin.
Maj. G. W. Macleod.
Capt. K. H. McCrimmon.
Maj. T. H. McKillip.
Capt. G. A. McLarty.
Maj. H. J. McLaughlin.
Maj. S. P. McMordie.
Maj. K. A. Mahaffy.
Maj. D. H. C. Mason.
Lt.-Col. C. H. Mitchell.
Maj. F. Morison.
Brig.-Gen. V. W. Odlum.
Maj. J. L. R. Parsons.
Maj. E. Pepler.
Maj. A. G. Poupore.
Lt.-Col. S. S. Sharpe.
Maj. A. E. Snell.
Capt. E. R. Street.*

MILITARY CROSS.

Maj. P. P. Acland.
Lt. E. R. Allen.
Capt. H. H. Argue.
Lt. A. C. Armstrong.
Lt. J. C. Auld.
Lt. P. W. Beatty.
Capt. C. A. Bell.
Lt. J. S. Bell.
Capt. T. H. Bell.
2. Lt. E. C. Bevan.
Lt. P. V. Binns.
Capt. C. A. Brisco.
Ass't. Adj. G. W. Brown.
Capt. J. V. Brown.
Lt. R. A. Brown.
Lt. N. V. Buchanan.
Capt. H. Buck.
Lt. L. F. Burrows.
2. Lt. H. S. Calverley.
Lt. H. M. Campbell.
Lt. J. J. Campbell.*
Capt. L. A. Carr.
Capt. R. W. Catto.
Lt. E. V. Chambers.
Capt. J. R. L. Christian.
Lt. G. Clark.
Lt. T. W. Clarke.
Lt. C. P. Coatsworth.
Lt. K. E. Cooke.
Capt. W. G. Cosbie.
Lt. G. W. Crow.*
Capt. J. A. Cullum.*
Capt. A. T. Davidson.
2. Lt. M. A. Davis.
Lt. O. J. Day.
Lt. W. S. Duncan.
Lt. G. Dundas.
Lt. A. Eastham.
2. Lt. H. S. Edmonds.*
2. Lt. S. D. Ellis.*
Lt. A. B. Fennell.
Capt. C. P. Fenwick.
Lt. D. W. Ferrier.
Maj. H. W. A. Foster.
Capt. D. T. Fraser.
Lt. S. G. Freeborn.
Capt. C. T. Galbraith.
Ass't. Adj. J. S. Galbraith.
2. Lt. G. S. M. Gauld.
Lt. J. G. Gauld.
Capt. A. J. Gilchrist.
Lt. D. S. Graham.
Lt. O. W. Grant.*
Lt. A. D. Gray.
Maj. G. G. Greer.
Maj. J. E. Hahn.
Capt. E. W. Haldenby.
2. Lt. C. P. Halliday.
Capt. H. P. Hamilton.
Capt. H. K. Harris.
Capt. R. I. Harris.
Capt. H. Hart.
Maj. M. M. Hart.
Capt. F. R. Hassard.
Maj. A. K. Haywood.
Capt. W. D. Herridge.
Lt. C. S. L. Hertzberg.
Maj. H. F. H. Hertzberg.

MILITARY CROSS

Lt. R. T. C. Hoidge.
Capt. J. A. Hope.
Lt. L. Husband.
Flt. Cmdr. R. H. Jarvis.
Maj. E. S. Jeffrey.
Capt. H. B. Jeffs.
Capt. A. C. C. Johnston.
Capt. R. L. Junkin.
Maj. J. Kay.
Capt. C. Keyes.
Lt. N. A. Keys.
Capt. G. C. Kidd.
Capt. W. E. Kidd.
Lt. L. W. Klingner.
Lt. A. G. Knight.*
Lt. J. A. Langford.
2. Lt. G. VanW. Laughton.
Lt. A. G. Leslie.
Lt. A. B. Lindsay.
Lt. A. Linton.
Sgt. H. B. Little.
Lt. R. V. Macaulay.
Lt. N. F. Macdonald.
Lt.-Col. A. H. MacFarlane.
Lt. J. A. McCamus.
Capt. W. S. McClinton.
Capt. J. C. McCorkindale.
Lt. C. B. Cuaig.
Lt. W. L. McGeary.
Lt. W. G. McGhie.
Lt. P. McGibbon.
Maj. A. H. McGreer.
Lt. D. McGugan.
Lt. J. A. McKinnon.
Capt. J. G. McMillan.
Lt. A. A. McQueen.
Lt. G. E. Macklin.
Maj. K. A. Mahaffy.
Capt. R. J. Manion.
Lt. V. H. K. Moorhouse.
Maj. F. J. Mulqueen.
Capt. A. G. Naismith.
Capt. H. Parke.
Capt. A. A. Parker.
Capt. M. H. Paterson.*
Lt. G. C. Patterson.
2. Lt. C. V. Perry.*
Maj. W. E. Phillips.
Capt. W. E. Poupore.
Lt. F. M. Pratt.
Lt. E. E. Price.
Lt. W. Proudfoot.
Lt. C. M. G. Purchas.
Lt. C. E. Richardson.
Lt. W. W. Rogers.
Lt. R. R. Rose.
2. Lt. J. H. Ross.
Lt. H. M. Rowe.
Capt. K. H. Saunders.
Lt. A. G. Scott.
Lt. J. F. L. Simmons.
Maj. J. D. Simpson.
2. Lt. H. A. Sinclair.
Maj. I. MacI. R. Sinclair.
Lt. C. E. Smith.
Lt. G. M. Smith.
Lt. C. Smythe.
Lt. W. A. Steel.

*Pro patria mortuus.

MILITARY CROSS.

Capt. A. E. Stewart.
 Capt. T. H. Stewart.
 Lt. J. J. Stock.
 Maj. D. H. Storms.
 Lt. A. E. Sutton.
 Capt. A. H. Taylor.
 Capt. R. F. Thompson.
 Capt. S. M. Thorne.
 Lt. L. B. Tillson.
 2. Lt. J. A. Trebilcock.
 2. Lt. D. P. Wagner.
 Capt. F. M. Walker.
 Capt. H. MacD. Wallis.
 Capt. D. A. Warren.
 Lt. H. Webster.
 Capt. J. G. Weir.
 2. Lt. A. R. Wells.
 Lt. A. M. West.
 Capt. W. L. Whittemore.
 Capt. R. W. H. Williams.
 Capt. H. A. Wood.
 2. Lt. E. H. G. Worden.
 Capt. C. S. Wynne.
 Lt. L. L. Youell.
 Capt. C. R. Young.

D.S. CROSS.

Flt. Lt. E. R. Grange.
 Flt. Cmdr. T. D. Hallam.
 Lt. D. A. H. Nelles.
 Flt. S. Lt. E. V. Reid.*
 Flt. S. Lt. S. W. Rosevear.
 Flt. S. Lt. J. E. Sharman.

D.C.M.

Lt. M. J. Aiken.
 Lt. W. H. B. Bevan.
 Sgt. W. Burd.
 Sgt.-Maj. C. B. Ferris.
 Lt. C. K. Hoag.
 Sgt. F. C. A. Houston.
 Cpl. A. R. Mendizabal.
 Maj. C. B. Nourse.
 Lt. A. C. Oxley.

Maj. P. P. Acland.
 Lt. J. B. Allen.
 Lt. F. Alport.
 Lt.-Col. J. A. Amyot.
 Capt. G. W. Armstrong.
 Capt. H. T. Bell.
 Capt. J. J. Bell.
 Capt. T. H. Bell.
 Lt. H. H. Betts.
 Sgr. W. A. Bishop.*
 Lt. J. G. Bole.
 Pte. A. J. Bromley.
 Lt. G. W. Brown.
 Major P. G. Brown.
 Capt. H. Buck.
 Capt. H. H. Burnham.
 Capt. S. S. Burnham.
 Lt.-Col. D. F. Campbell.*
 Capt. J. R. L. Christian.
 Lt. Col.-J. A. Clark.
 Lt. M. A. Clarkson.*
 Lt.-Col. F. T. Coghlan.
 Capt. E. F. Coke.
 Lt.-Col. J. J. Creelman.
 Capt. G. McI. Dale.
 Maj. W. W. Denison.
 Capt. A. U. De Pencier.
 Capt. H. H. Donald.
 Lt. G. A. Downey.
 Maj. A. W. M. Ellis.
 Maj. H. W. A. Foster.

Lt.-Col. J. A. Amyot.
 Brig.-Gen. E. C. Ashton.
 Capt. G. C. Bonnycastle.
 Lt.-Col. I. H. Cameron.
 Lt.-Col. G. Chambers.
 Lt. H. W. Cheney.
 Lt.-Col. D. A. Clark.
 Maj. H. A. Croll.
 Spr. W. P. Dale.
 Sgt. F. Gahan.
 Maj. O. K. Gibson.
 Col. P. G. Goldsmith.

*Pro patria mortuus.

MILITARY MEDAL.

L.-Cpl. W. L. D. Carnie.
 Cpl. A. W. Crawford.
 Gnr. L. W. Dippell.
 Gnr. P. A. Durbrow.
 Pte. C. M. Hatheway.
 Sgt. H. S. Hayes.*
 Gnr. F. B. Houston.
 Cadet W. C. Little.
 Gnr. G. A. McEwen.
 Pte. J. E. McGillivray.
 Capt. F. T. Mabson.
 Gnr. V. D. Speer.
 Sgt. C. B. Sutherland.
 Spr. F. H. Wilkinson.

CROSS OF THE LEGION OF HONOUR.

2. Lt. C. S. Wright.

LEGION OF HONOUR-CROIX D'OFFICIER.

Lt.-Col. C. H. Mitchell.

CHEVALIER OF LEGION OF HONOUR, CROIX DE GUERRE AVEC PALME.

Capt. L. A. Bibet.

LEGION OF HONOUR, CROIX DE CHEVALIER.

Capt. G. A. Cline.
 Maj. H. L. Keegan.

CROIX DE GUERRE.

Maj. W. H. K. Anderson.
 Capt. L. A. Bibet.
 Flt. Cmdr. C. M. Clement.*
 Capt. J. A. Cullum.*
 Sgt.-Maj. C. B. Ferris.
 Flt. Lt. E. R. Grange.
 Flt. Cmdr. G. G. MacLennan.*
 Capt. A. E. McCullough.
 Maj. E. Pepler.
 Cpl. C. E. Rochereau de la Sabliere.
 Capt. S. M. Thorne.

MENTIONED IN DESPATCHES.

Surg.-Gen. J. T. Fotheringham.
 Lt.-Col. J. J. Fraser.
 Capt. A. J. Gilchrist.
 Maj. G. B. Gordon.
 Lt.-Col. G. Gow.
 Capt. D. A. L. Graham.
 Flt. Lt. E. R. Grange.
 Maj. E. A. Greene.
 Maj. W. R. Greene.
 Maj. J. E. Hahn.
 Capt. G. C. Hale.
 Flt. Cmdr. T. D. Hallam.
 Lt.-Col. E. B. Hardy.
 Lt.-Col. W. B. Hendry.
 Capt. W. D. Herridge.
 Maj. H. F. H. Hertzberg.
 Gnr. F. B. Houston.
 Capt. H. B. Jeffs.
 Maj. J. Kay.
 Capt. C. Keyes.
 Lt. A. J. Kilgour.
 Capt. G. G. D. Kilpatrick.
 Lt. P. A. Laing.
 Maj. J. M. Langstaff.*
 Maj. W. H. Latimer.
 Lt. N. L. LeSueur.
 Maj. T. W. MacDowell.
 Lt. H. J. Maclaren.
 Capt. R. Macnamara.
 Capt. R. R. McClenahan.
 Capt. W. S. McClinton.

MENTIONED FOR VALUABLE SERVICES.

Capt. T. F. Graham.
 Maj. W. R. Greene.
 Capt. G. C. Hale.
 Capt. H. C. Hall.
 Maj. R. M. Harcourt.
 Adj.-Gen. W. E. Hodgins.
 Capt. J. E. Holmes.
 Lt.-Col. G. G. Hume.
 Lt. G. N. Kennedy.
 Capt. T. W. Lawson.
 Capt. O. N. Leslie.
 Ass't. Adj.-Gen. C. S. MacInnes.

Capt. K. H. McCrimmon.
 Lt. W. G. McGhie.
 Maj. A. H. McGreer.
 Maj. T. H. McKillip.
 Maj. W. T. M. McKinnon.
 Lt. H. J. McLaurin.*
 Col. D. W. McPherson.*
 Lt.-Col. C. S. McVicar.
 Capt. G. L. Magann.
 Capt. F. H. Marani.
 Capt. C. K. C. Martin.
 Maj. D. H. C. Mason.
 Capt. A. F. Mavety.
 Sgt. W. C. Milne.
 Lt.-Col. C. H. Mitchell.
 Capt. L. W. Moffit.
 Maj. F. J. Mulqueen.
 Col. G. G. Nasmith.
 Maj. E. D. O'Flynn.
 Brig.-Gen. V. W. Odlum.
 Maj. G. M. Orr.
 Maj. C. C. Owen.
 Sgt. H. H. Owen.*
 Lt. A. E. Parlow.
 Maj. H. C. Parsons.
 Maj. W. M. Pearce.
 Maj. W. E. Phillips.
 Capt. G. R. Philip.
 S. Lt. J. E. Potvin.
 Maj. A. G. Poupore.
 Lt. N. C. Qua.

Maj. C. D. H. McAlpine.
 Maj. S. H. McCoy.
 Lt.-Col. G. F. McFarland.
 Capt. G. H. McLaren.
 Col. D. W. McPherson.
 Lt.-Col. A. A. Magee.
 Capt. F. R. Mallory.
 Capt. G. V. Morton.
 Maj. E. A. Neff.
 Cpl. C. E. Ogden.
 Lt.-Col. J. A. V. Preston.
 Lt.-Col. R. Raikes.

KNIGHTED BY THE KING OF ITALY.

Chevalier W. E. Doherty.

ITALIAN MILITARY MEDAL FOR VALOR.

Capt. H. H. Burnham.

ITALIAN MILITARY MEDAL.

Lt. W. G. McGhie.

ITALIAN RIBBON.

Lt. N. Cacciapuoti.

RUSSIAN CROSS OF ST. GEORGE.

Lt. C. P. Cotton.*

RUSSIAN ORDER OF ST. STANISLAUS, WITH SWORDS.

Lt.-Col. J. J. Creelman.

BELGIAN ORDER OF LEOPOLD.

Lt.-Col. C. H. Mitchell.

SERBIAN ORDER OF WHITE EAGLE.

Lt.-Col. G. Gow.

SERBIAN CROSS OF ST. SAVA.

Col. H. C. Barrie.
 Capt. J. K. Mossman.
 Capt. H. J. Shields.

MONTENEGRIN ORDER OF DENILO.

Brig.-Gen. V. W. Odlum.

MERITORIOUS SERVICE MEDAL.

Sgt. W. C. Milne.

RED CROSS MEDAL.

Col. H. G. Barrie.

ROYAL RED CROSS.

Matron E. B. Ridley.

Capt. G. W. Racey.
 Col. J. A. Roberts.
 Maj. D. E. Robertson.
 Maj. N. R. Robertson.
 V.A.D. C. Robinson.
 Lt. C. H. Rogers.
 Capt. A. C. Rowswell.
 Capt. A. C. Ryerson.
 Lt. C. G. Saunders.
 Col. W. A. Scott.
 Lt. W. G. S. Scott.*
 Lt. G. T. Scroggie.
 2. Lt. C. Simpson.*
 Maj. I. MacI. R. Sinclair.
 Maj. A. E. Snell.
 Capt. A. C. Spencer.
 Lt. N. Stansfield.
 Col. R. H. Steacy.
 Lt. W. A. Steele.
 Capt. E. R. Street.*
 Capt. C. J. S. Stuart.
 Lt.-Col. D. M. Sutherland.
 Maj. H. W. Tate.
 Maj. A. E. Taylor.
 Maj. G. E. Vansittart.*
 Capt. D. E. S. Wishart.
 Lt. H. Webster.
 Capt. J. G. Weir.
 Lt. H. K. Wyman.
 Lt. L. L. Youell.
 Lt.-Col. T. W. H. Young.

Capt. L. M. Rathbun.
 Maj. J. R. Roaf.
 Col. R. D. Rudolf.
 Maj. B. J. Saunders.
 Capt. L. P. Sherwood.
 Capt. H. A. Simmons.
 Maj. A. A. Smith.
 Capt. S. C. Snively.
 Lt.-Col. C. L. Starr.
 Capt. D. D. Wilson.
 Lt. H. K. Wyman.

The Faculty of Education and the War

By DEAN PAKENHAM.

THERE have been changes in the Faculty of Education since the war began. In comparison with European training schools for teachers, Ontario training schools may not have changed much since July, 1914. Educational backgrounds have been so different. In Ontario untrained teachers have not been permitted to replace trained teachers who have enlisted, schools have not been closed to provide hospitals and barracks, and the school-attendance and child-labour laws have not been cast into the scrap-heap. Even from the first days of the war Ontario seemed to realize—what the other warring nations realized later—that the economic struggle after the war will be no whit less strenuous than the war itself, and that for this economic struggle the schools must prepare now and prepare with all their might. Nevertheless there have been changes in the Faculty of Education, some due directly to the war, and all more or less influenced by the war.

There have been changes in both staff and students. Four members of the teaching force have volunteered and served. Major Bramfitt is a military instructor in No. 2 Division, Captain Cline and Lieutenant Lower are at the front, and Lieutenant Manning is convalescing from a very severe wound. As the laboratories of the Faculty of Education, the University Schools are one of its teaching agencies. They have a record in the war of which the University should be proud. Though scarcely more than four years old when the struggle began, they have sent 310 volunteers to serve abroad and twenty-two have made the supreme sacrifice.

Some of the changes in the registration of teachers-in-training are worthy of note. In the first half-year of the war the economic world was almost in a panic and the rush of young men and women into the Ontario training schools for teachers was unprecedented. In 1914-15 these schools had the largest enrolment in their history. In 1917-18, the fourth session since the war began, a reaction is in full swing and the registration in the Faculty of Education has fallen below 250, the lowest since it moved into its new buildings. During the same period there has been a decrease in the attendance of graduates in arts from 106 to 68 and of men teachers-in-training from 100 to fewer than 50.

Looked at from one side and with due allowances for a small group of "A.R." men, the movement into voluntary military service from the Upper Schools of the High Schools and from the Arts Colleges of the Universities seems to be almost universal. As if to emphasize this fact well-nigh 25% of the men graduates of the Faculty of Education have resigned their teaching posts to go to the front. Thus the men who by the obligations of their profession are required to teach patriotism are among the first to practise it. Looked at from another side these figures suggest another story. For years the number of men teachers has steadily declined. Twenty years ago 33% of the teachers in Public Schools were men; last



year not 16%. Twenty years ago 80% of the teachers in High Schools were men; this year not 54%. A movement which social and economic conditions have started the war will now accelerate. The number of men teachers-in-training at the Faculty of Education has decreased by one-half. But that is not the whole story. About 20% of the men teachers in Ontario withdrew

from their schools and enlisted before the end of 1916, and the number of enlistments has grown steadily during 1917. It will not be possible to return these men to their school posts immediately after the war. With their new interests many may not wish to resume their old duties. It is doubtful, indeed, whether amid the economic conditions after the war the schools will be able to retain men teachers in their service. Thus, directly, and indirectly too, the war seems to hasten the approach of that time when the man teacher will have disappeared from the schools of Ontario. His disappearance will affect the schools—their curricula, methods of instruction, and discipline but—that is another matter.

Other features of the registration call for passing notice. The small but steady stream of graduates from the British universities went dry when the war began. A new and hopeful stream from the Eastern Provinces of Canada replaces it. Will unity of purpose through the war bring educational unity to Canada? The decrease in the number of graduates in Arts in training has been accompanied by a decrease in the number of specialists. Thirty-nine specialists were enrolled in 1914-15 but only twenty-two in 1917-18. It is due to the demands of the munitions factory that specialists in science have quite disappeared, and to the new practical spirit in the schools that specialists in Household Science have sprung in numbers into the second place among specialists.

In all democracies the war has driven home with awful emphasis the lesson of preparedness. The basis of preparedness is thoroughness. More or less unconsciously no doubt, the changes in the curricula of the Faculty of Education since 1914 have moved in the direction of thoroughness. Henceforth only one course—and one certificate—may be taken in the annual session. The session itself has been extended by seven weeks. The college day has been lengthened, the practical work greatly increased, and the lecture has been replaced to a large extent by the recitation and seminar.

Changes in the contents of the courses are also a more or less unconscious testimony to the influences of the war. No subject has received larger accessions in content than physical education. It has come to the very forefront among training school subjects. Are the lessons of the army medical examiners to bring results? Manual training, household science, drawing, and the natural sciences are to receive increased attention. These are classed as culture subjects in the schools but they lie on the borderland of the practical and utilitarian—and we must apply our arts and sciences to the activities of modern life.



STUDENTS DRILLING UNDER DEPARTMENT OF MILITARY STUDIES

St. Michael's College and the War

IT would be a commonplace, when all Canada and the whole world are convulsed, to say that St. Michael's has been affected materially by the years of war. To say how she has been affected is a difficult task, as perhaps some of the most lasting results will not be known for years and may even never be known. It is, perhaps, more difficult in the case of St. Michael's than in that of any other college of the University. The other colleges have attained maturity in numbers, finance, and traditions. The influence of the war on any phase of college life may be fairly well seen by comparison with previous years. St. Michael's has no previous years with which to compare. She began her life as an Arts College in the session 1910-11. Each year the student roll went up with leaps and bounds, and where another college may say that its normal number are reduced, for us there was no norm, and we may say our growth that promised is stopped. Our service roll of 221 (including the Junior School) many of whom will never return, inflicts a loss of which we are proud, but the shock of meeting a world cataclysm at the very outset of its existence has retarded the young college's progress more than will show.

The authorities of the College had already decided on erecting on Queen's Park a new college, that would be a credit to the University. They felt that with a college doing efficient work and housed in a worthy building, the Roman Catholics of the province would gladly second their efforts with financial assistance. This project had to be postponed.

St. Michael's has continued in the past and continues to-day without any endowment, without other sources of revenue than student's fees, solely because the members of the staff contribute their lives to the work without any monetary remuneration. Each member of the Basilian Community receives an allowance of eighty dollars a year for personal expenditure. I mention this to make clear that the staff of St. Michael's has manifested a spirit of noble generosity by giving to every Red Cross collection, out of its little all, a higher proportion of their salary than any other body of men. They have given till it hurt.

Another very important, if not the most important in-



fluence of the war which St. Michael's shares with all other colleges is the task of adjusting itself to changed conditions and putting in the proper perspective the objects and lessons of these years of stress. Already freshmen were mere children when the war began. From now on students will never know as the staff will, the happy times before the war. On the other hand many a mistake will be made by professors who fail to realize the outlook of those who have not lived mature lives under both conditions. It is one of the first duties of a Canadian

college to teach that Canada entered this war with twenty thousand men a few hours after England was engaged and has poured them across the ocean in a steady stream ever since, not because she feared invasion and subjection, not because she would be more prosperous, not even because Germany violated sworn treaties, but because she was loyal to England and the British Empire. And to-day the Government of Canada, after the flower of the land is gone, is taking the best that are left, not because Canada can spare them, but because our plighted honour as a nation binds us to suffer gaping wounds and to watch with heavy hearts the morning casualty lists.

We must teach the youth to come that there are higher things in life than gold and silver, than a long life, than home and children; that ruin to our land is to be preferred to a sullied history; that democracy hereafter triumphant can only stand permanently with a deep sense of unselfish responsibility, in corporate and individual life, diffused through the people.



ST. MICHAEL'S COLLEGE

The War and Wycliffe College

WHEN the great war of 1914 came on the world, Wycliffe College students to the number of about 110, were scattered all over Canada, some in secular work but the greater part holding missions or otherwise engaged in religious service, under such organizations as Church Camp Mission, the Reading Camp Association, the Bible Society, and the Dominion Alliance. With the first week in October, the College halls were again filled to overflowing, but a strange uneasiness was manifest, it was hard to



Hodge, Lieut. W. H. Gregory, Pte. A. B. Thompson, Lieut. H. H. Owen, Pte. A. E. Lawton, Pte. A. Stanley Parker, Pte. L. J. Creasy, Lt. H. Lawrence, Corporal A. Cavill.

The following are prisoners in Germany: Cpl. E. A. Wasson, 2nd Lieut. C. Glover, 2nd Lieut. A. Holmes, Sergt. F. C. Noxon.

But apart from the contribution in men, Wycliffe College has been able to make another and very valuable contribution to the Empire in providing the continuous accommodation of 250

men of the Imperial Flying Corps until the end of the war. These young men are drawn from all over the continent. They spend about six weeks in Toronto for instruction and then pass on to other schools and their places are taken by a new lot, so that the old halls are always full of a fine-looking and well-behaved body of men who are in training for a particularly necessary and at the same time, hazardous arm of the service. To effect this, the Council of the College leased the main and central part of the building including the Convocation Hall and the spacious dining-hall with the kitchen and adjacent rooms, and reserving for their



WYCLIFFE COLLEGE

get down to work, hard to concentrate. There was an uncertainty and tension in the atmosphere which made study difficult and even the most resolute were affected by it.

Gradually, as the weeks went by, the seriousness of the war took greater hold of our men, as it did upon the whole world, and the call of Canada for voluntary military service fell on soil already prepared. One by one, or sometimes in twos and threes, the men appeared before the Principal, announcing their readiness to go and asking for advice. Among the first to go was noble H. B. Hodge, who has since paid the supreme sacrifice. He was one of the older men, a veteran of the South African War, a beautiful character, strong, steady, sincere. About the same time, A. C. S. Trivett, ("Mike") Holes, Cecil Harcourt, L. D. Pengelly, Harold Owen, W. H. Baines, and others enlisted, and by the end of the College year, when a particularly large class graduated, our numbers were already visibly, and quite seriously depleted.

From that time to the present, one after another has enlisted for military service, until to-day we have only 24 men left in theology, and these all either physically unfit, or married, or under or above the age limit of the first draft under the Conscription Law now in force in Canada. Eighty-two men in all have joined the colours. Of these the following have given their lives for the common cause: Sergt. H. B.

own use only the West wing, the Library, the Chapel and the Housekeeper's and Maids' quarters.

Thus the war has meant for us some sacrifice, some change of plans, some disappointments, and above all, grief for those who have fallen and whose faces we shall see here no more. But we doubt not there has also been great gain. If we have faced sacrifice and change, loss and bereavement, in a spirit of faith and confidence we must be purified and ennobled thereby. And the war has taught us much. Essential Christianity has often been obscured by the jealous struggle between rival parties and rival Communion. Our interests have now suddenly been forced into a new channel where instead of fighting each other, we have to face together a powerful, menacing anti-Christ, whose watchword is Glory, Fame, Dominion, at all costs and by all means, whether fair or foul. Christianity must be mobilized to meet this menace and as our College has played no mean part in the great struggle of the nations, we believe it shall bear an equal share in bringing in a new and better era for the Church and for the World through the Church.

"I hold it true with one who sings
To one clear harp in divers tones,
That men may rise on stepping stones
Of their dead selves to higher things."

Royal College of Dental Surgeons of Ontario and the War

WALLACE SECCOMBE, D.D.S., Toronto.



SINCE the commencement of the war a total of one hundred and eighty-four students of the Royal College of Dental Surgeons have enlisted in the Canadian Expeditionary Force. These men have, in the matter of standing, been treated by the college with every possible consideration. Arrangements have been made each year, after a certain fixed period in the term, to hold special examinations for those who desired to enlist before the close of the session.

During the summer of 1916 special third and fourth year sessions were held, for the purpose of advancing the training of these men; and thus preparing them for service, either as graduate dentists in the militia, or to serve the public in those districts where dental practitioners had enlisted and a serious public need for dental service existed.

During the fall of 1916 the militia authorities at Ottawa reported that there had been requisitioned for service in the Canadian Army Dental Corps overseas, drafts amounting to two hundred dentists, two hundred and seventy dental sergeants (laboratory assistants), and two hundred privates. This demand for trained laboratory assistants was greater than the total number of men in Canada available for such service.

To meet the situation the Militia Department considered the organization of a dental sergeants' training school in Ottawa. Had this plan been carried through, a great deal of expense would have been incurred for equipment and instruction. Students would have been trained at the public expense, and very few of them doubtless, would have held preliminary qualification permitting them to proceed with a regular dental college course at the conclusion of the war. The offer of this college to secure and train recruits for this purpose resulted in the abandonment of the plan to establish a Military Dental School.

In answer to this special call, fifty students of the Royal College of Dental Surgeons, offered their services, were given special instruction and were enlisted as sergeants about the first of February, 1917. These students were granted standing in their year. Furthermore, the College arranged with the Department of Militia to secure a group of young men from the Matriculation Classes of the High Schools of the Province, permit them to take a special dental course and grant them First Year Standing, upon evidence of enlistment and favourable recommendation of the College faculty. This special class, composed of seventy-four men, was organized

during January and commenced work on the fifth of February, 1917. It was decided to conduct, if time permitted, at least a five months' course. Even in that period it is quite impossible to train a man as an expert dental laboratory assistant. Notwithstanding, however, within three months from the commencement of the course, the Militia Department called out twelve of the class for overseas service, and the balance continued at College until the end of June.

In the meantime voluntary enlistment in Canada had



DENTAL COLLEGE

almost ceased, and consequently, the balance of these dental sergeants were not immediately required and were sent to Camp Borden for military training. These men are now proceeding with their work at the College, and are subject to call at any time. This unforeseen delay is proving an advantage as it gives the necessary time to properly train these men and make their work as dental sergeants much more effective.

For the session 1917-18, it was decided early in February, and confirmed at the meeting of the Board of Directors in May, 1917, that the following regulations be adopted governing the registration of freshmen students for the session 1917-18:

That for the session 1917-18 every freshman student who is physically fit for military service be enrolled in a special First Year Class for special training in the work of a dental sergeant; such student to hold himself available

for service in the Canadian Army Dental Corps as required.

"That freshmen students who are not physically fit for military service be enrolled in the regular First Year Class. There being a great need for dentists in civil practice, candidates unfit for military service, will be permitted to proceed to graduation in the regular course.

As a result of these regulations quite a number of applicants refused to register. However, every student, without exception, was compelled to sign an application embracing the above agreement, no matter what his age.

All dental students in all classes are compelled this year to take military drill, unless excused for good cause. About two hundred and forty dental students have enrolled in the U. of T., O.T.C. in "L" Company, under command of Lieut. W. E. Willmott.

The University and the College have worked in the closest harmony and co-operation in regard to the conduct of dental studies and all regulations that have been adopted apply equally to both the Dental Department of the University and the Royal College of Dental Surgeons.



RECEIVING WIRELESS MESSAGES FROM AEROPLANE ON UNIVERSITY CAMPUS

In Flanders' Fields

BY LIEUT.-COL. JOHN McCRAE, On Active Service

Faculty of Medicine

IN Flanders' fields the poppies blow
Between the crosses, row on row,
That mark our place and in the sky
The larks still bravely singing fly,
Scarce heard amidst the guns below.
We are the dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders' fields.

Take up our quarrel with the foe,
To you from falling hands we throw
The Torch—be yours to hold it high;
If ye break faith with us who die,
We shall not sleep though poppies grow
In Flanders' fields.

Women Students on "Active Service"

By MOSSIE WADDINGTON, M.A.

ONE phrase has been heard recurring since August 1914: "the war has not come home to Canada yet." Not reproachfully so much as wonderingly it was said. For we were glad and proud to share in the Empire's struggle—yet the thousands of miles of sea between us

and the conflict, the unchanged peace of our land, the smooth running of business and home and farm all kept the mighty change in the life of Europe an ungripped mystery—out there, always beyond us. It is true we felt war's tragedy. One loved one and another left us, and often we were called to say, "I shall go to him, but he shall not return to me." Then it was that we envied our sisters in sorrow across the sea. They had a vocation to fill, it seemed that they might

till the land, and carry on their country's business where husbands and fathers and brothers had laid it down. But women in Canada were told that they might only practice thrift to help the war, or spend all their effort upon Red Cross work. These seemed useful tasks, but only palliative, where the strong desire was to be creative and constructive, like those splendid French and British women of whom we read.

The year 1917 has seen the partial fulfilment of this desire. When in the Spring, cards were issued to register men for the work of bringing in the country's harvests, those in authority decided to open the "national service" lists to women also. The response was as eager and earnest on the part of the women as on that of the men. The pledge was for the spending of a definite part of the summer in national service, and though it was not known by employment bureau or would-be employee what form that service would take, the cards were filled in and the numbers listed. Among many others to volunteer, there were between two and three hundred from our three women's colleges, and these served for periods of from one to four

months through the summer. Had there been longer notice of the scheme, the numbers would doubtless have been still greater. Like most of the other women volunteers for national service, the college girls were grouped in camps, from which they were hired out by the farmers in the surrounding district.

The centre for Victoria was the Club House at Winona, for St. Hilda's the Chisholm Bungalow at Oakville, and for University College, the Denny House at Beamsville. The house in each case was run very much on the plan of the home college, the main differences being that life began with a rising-bell at 5.30 a.m., instead of at 7, that the domestic tasks were shared in by the girls, and that the main duty of the day was

no longer reading and attendance at lectures, but planting, weeding or hoeing, spraying, pruning or cultivating, picking, packing or shipping fruit, delivering or selling produce at the market. There were odd cases of more varied labour still—helping the farmer's wife to houseclean, keeping the farm accounts, pursuing the grubs that harass the tree-stems, cutting out raspberry canes, and in one progressive farming establishment running a typewriter! In one district it was even given to girls to run the disk, harrow and roller, and the same gifted labourers helped the farmer to pitch his hay.

It may be asked how such an untried experiment as the use of hundreds of women on Ontario farms met with such success in its first year. The answer is the untiring patience of the officials in the new Provincial Employment Bureau (and the active officials in this case, we are proud to say, are graduates of our own), and the gallant determination of the girls themselves. The farmer had no confidence in the fitness of inexperienced girls for his special tasks—he only accepted them as constrained by necessity, and gave a guarantee of



THE DENNY HOUSE AT BEAMSVILLE



ST. HILDA'S GIRLS IN THE RASPBERRY PATCH



ST. HILDA'S GIRLS IN THE ONION BEDS

employment, when he did give it, grudgingly. After weeks of negotiation, one grower made a verbal guarantee of work for a certain number of girls at the end of May. The party

this time she was established as a genuine labourer,—and fond mothers at home in the city began to remark, "The price of strawberries is coming down—Jean and Mary are



ST. HILDA'S GIRLS WEEDING POTATOES



VICTORIA GIRLS WIN FAME HOEING THE VINEYARD

arrived, and work was available for a day or two. The strawberry crop, however, failed the expectations of the grower, and the girls were turned off. Panic ensued, and national service of women on Ontario farms might have been as a dream when one awaketh, had it not been for a certain historic vineyard. This vineyard had lain fallow for some years, it was hard and clayey, and an unbelieving farmer turned a group of college girls into it, armed each with resolution and a hoe. The result was triumph—triumph over the vineyard and the farmer, and triumph for the claims of the Canadian girl as a farm volunteer. From

picking, you know!"

The success of any movement may be measured first by the adequacy of the result to the aim.

The main motive of the college girl in spending her holiday in war work, was to serve her country by aiding in food production and distribution. This aim may be taken to have been attained. At a time when all Canada's produce was needed for her own and the Allies' support, Canadian girls have done something in the way of necessary vegetable and fruit work, when only female labour was available. The general satisfaction of the farmer with the work done is a

(Continued on next page)



GIRLS OF UNIVERSITY COLLEGE PICKING CURRANTS



UNIVERSITY COLLEGE GIRLS ON DINNER PAIL PARADE



VICTORIA GIRLS PICKING PLUMS

The Effect and Influence of the War on the Ontario Agricultural College

By G. C. CREELMAN, M.S., L.L.D.

AT the first bugle call our students rushed to arms, organized platoons and companies and started their drilling operations. As Canadian Expeditionary Forces were organized men transferred to them from the College until in the end over 500 men were found in the overseas ranks. Unfortunately more than ten per cent. have been killed already and a large number wounded and in the hospitals.

The immediate effect, therefore, has been to reduce our numbers from a normal 450 long course students to 175 at present in all classes. It has also had the effect of sobering the minds of students in attendance, and of bringing them to a realization of the great crisis.

Perhaps no other faculty of the University comes more directly in contact with the people than does that of agriculture. Thousands of our ex-students are living on farms in the Province of Ontario, and we are trying to keep in close touch with them with the hope of stimulating production and in-



creasing the quality and kind of food required especially by the Allies.

Nearly 50 district representatives are at work in the several counties, all graduates of the College, and all keen to help to win the war. These men are helping the farmers of their several counties, encouraging town and city men to help the farmer in his farm operations; procuring good seed; surveying for tile drainage; purchasing tile in carload lots; pruning and spraying the orchards; giving instruction in country schools and conducting school fall fairs—these and many other activities are being practised that farmers may be encouraged and assisted in larger and better production.

At the College we are "carrying on". Our staff are earnest and anxious to assist in every way and the small student body comprised largely of men who have been turned down by the militia authorities are doing good work, more so, as the classes are not at all crowded.



THE CAMPUS, AGRICULTURAL COLLEGE, GUELPH

Women Students on "Active Service"

(Continued from page 114)

fair criterion of the reality of women's national service in the summer of 1917.

But any movement, large or small, goes beyond itself, and certain further results than the saving of fruit crops may be noticed in connection with the summer's work. There is first a new understanding between the city and the country. Girls have worked hard for from eight to eleven hours a day—and have seen the farmer's wife work harder and longer still. They have thus gained insight into and sympathy with the deprivations of rural life. On the other hand, the people on the farms have learned to appreciate the adaptability, readiness and spirit of the girls, and have found many points of contact where none were at first apparent. A further result of the girls' work on the farms is their growth of practical judgment and power. It is now seen how economics may become a living, instead of an abstract study, for the farmer, the weather, the market and wages received, have pressed home a problem of intense personal interest! The result of

the girls' deliberations on this question, was lately observed in the resolutions passed with regard to terms of employment another year. A fair spirit and wise judgment prevailed through the whole. The last outcome of the summer's work to be noted is the crystallizing of personal judgment, the deepening of individual experience, the gaining of a new poise—which comes through doing a fresh bit of work, and doing it well. From one standpoint at least this is most important of all. For war time, like the days of peace, may be regarded as only a set of conditions in which human character develops and matures. The men have answered the call of the time by fulfilling the ideal—can the women fall behind?

"He fixed thee 'mid this dance,
Of plastic circumstance,
This Present, thou, forsooth, would fain arrest:
Machinery just meant
To give the soul its bent,
Try thee and turn thee forth, sufficiently impressed."

The Faculty of Applied Science and the War

BY DEAN ELLIS



ON the 5th of May, 1862, a company of Volunteer Rifles was organized from among the members of the University, and on the 21st of November of the same year it was incorporated as No. 9 Company in the 2nd Battalion of Volunteer Militia just organized under the designation of the Queen's Own Rifles of Toronto. The Officer Commanding the company was Captain H. H. Croft, Professor of Chemistry in the University. The present Dean of the Faculty of Applied Science joined the Company as private on matriculating in 1863 and retired with the rank of captain in 1876. The Company served as a unit in the Fenian Raid of 1866 and was represented in the Red River Expedition of 1870, in the North West Field Force of 1885 and in the South African war.

For many years the University Rifles served as a nursery for officers of the Canadian Militia, a large number of O.C.'s and field officers of militia battalions having received their first military training while undergraduates of the University. Several general officers serving in the present war, among them the lamented General Mercer are in this category.

On the retirement in 1883 of Professor Alfred Baker from the command of the Company, the close connection of the University with the Queen's Own Rifles which had subsisted for more than twenty years gradually ceased on account of the difficulty of accommodating drill



DEAN ELLIS

hours, etc., between the needs of students and of men employed in business.

In 1900 a movement was set on foot among the graduates of the University and others interested in the defence of the country to organize a militia unit which should be recruited from among the University students and should be in close touch not only with the Militia Department but also with the University authorities. Many of those interested were in favor of the formation of a battalion of Rifles, but the Militia Council were of the opinion that a company of Engineers was preferable under the circumstances and in a general order dated 1st May, 1891, authority was given for the formation of a Field Company of Engineers to be recruited from among the students of the University. Capt. (now Colonel) W. R. Lang, of the 1st Lanarkshire Engineers (Volunteers) was placed in command.

The authorized strength of the Company was one captain, two lieutenants and fifty-five other ranks. Of these the greater number were students of the Faculty of Applied Science.

The first official parade of the Company was when they took part in the Royal review held in honour of H.R.H. the Duke of York, now King George V, when it made its first appearance as "Divisional Engineers," heading the march past immediately in rear of Colonel Otter and his staff.

In May 1902, the Company went into camp on the Garrison Common and were complimented by the Major-General Commanding on their high state of efficiency. On July 1st, 1902, Captain Lang was promoted major.

In June 1904, a city section was added to the Corps and went into camp at Niagara. The University section were mostly unable to attend this camp being out on surveys. In this and the succeeding years two trainings were held, one at the local headquarters by the University half company and the other at Niagara Camp by the city half company.

In 1907, Company Quarter-Master Sergeant Williams was appointed gymnastic instructor at the University gymnasium and his place as Q.M.S. taken by Sergeant Repath.

About this time M.H.Q. recognized the camp at Niagara as a School of Instruction for officers and N.C.O.'s of



No 2 UNIVERSITIES COMPANY

the Canadian Engineers and many officers and N.C.O.'s were successfully trained there.

In 1909 a telegraph section, the first of its kind in Canada, was authorized as part of the Company's establishment with Lt. T. C. Irving as O.C.

On the declaration of war H.Q. instructions from Ottawa called for the Company's recruiting men for service abroad. In response to this call 251 N.C.O.'s and men proceeded to Valcartier on the 22nd of August, 1914, under Capt. T. C. Irving, afterwards Lieut.-Col. Irving, D.S.O., killed in action; Lieut. E. Pepler, C.E., now Major, who was awarded a Croix de Guerre, March 11, 1916; Lieut. H. F. H. Hertzberg, now Major, O.C. Field Company, Military Cross and Mentioned in Despatches, wounded, and Lieut. N. R. Robertson, now Major, O.C. Field Company.

On the 15th of October, 1914, the formation of the Toronto University Contingent of the Officers' Training Corps was authorized on the basis of thirteen companies, with Lieut. Col. Lang as O.C. and Major Bramfitt as Adjutant. Of the thirteen companies, 3, H. I and K with 438 members were undergraduates in Applied Science.

The following Applied Science men were appointed officers:

Capt. (now Lt.-Col.) A. D. Le Pan (now O.C. School of Infantry, M.D. No. 2).

Capt. (now Major) C. R. Young (now on staff of Instructional Cadre, M.D. No. 2).

Capt. (now Major) H. H. Madill (now on staff of Instructional Cadre, M.D. No. 2).

Capt. (now Major) A. W. McConnell.

Lieut. J. R. Cockburn, now R.E. Survey Company.

Lieut. W. M. Treadgold.

Lieut. R. H. Hopkins.

Lieut. C. H. C. Wright, who was appointed Quartermaster.

Lieut. W. J. T. Wright, afterwards O.C. of U. of T. Battery, now of Canadian Railway troops.

In 1915-16 on account of reduced enrolment Applied Science had only two companies with 312 members. In 1916-17 the still smaller enrolment reduced the roll to 86 members.

In March, 1916, the Overseas Training Company was organized under the command of Major Needler and Capt. Wallace for training officers and men for overseas service. Many Applied Science men entered this corps. Of these sixteen have obtained commissions in the Imperial Army, three in the Royal Flying Corps, seven in the Royal Naval Air Service, two in the C.E.F.; and eighteen are still in the Corps.

The University Battery also proved a popular unit for Applied Science men, one of whom, Lieut. W. J. T. Wright, was its first Commanding Officer. Besides those serving with the colours, members of the Faculty have done much work in connec-

tion with the war. Prof. Bain of the Department of Applied Chemistry, has been engaged in research work on explosives in the laboratory and factory. Prof. Ardagh and Prof. Boswell have been engaged in research work of various kinds for military purposes. Mr. Rogers is consulting chemist for the Imperial Ministry of Munitions, Ontario Section, Steel Department. The following graduates and undergraduates in the Department of Applied Chemistry are employed in chemical work on explosives, chiefly under the Ministry of Munitions: J. B. Holden, G. G. Macdonald, J. V. Dickson, H. Kohl, K. S. MacLachlan, A. E. Wigle, R. D. Affleck, J. K. Affleck and J. E. Musgrave. G. Clarkson is in similar work in Great Britain. W. E. Phillips is major in the Royal

Warwicks and has been awarded the Military Cross. E. A. Twidale has been killed in action, A. W. Sime is a prisoner of war in Germany and Major D. H. C. Mason, D.S.O. is with the C.E.F.

In March, 1917, arrangements were made for the Cadet Wing of the Imperial Royal Flying Corps to be provided with space for their staff of instruction as well as for practical work and lectures in the Engineering Building. Some of the instruction was also given in the

Thermodynamics Building and later on elsewhere in other University buildings. This involved turning over to the Royal Flying Corps a considerable part of the Engineering Building, an arrangement which was possible owing to the large reduction in our attendance due to the war and the approaching end of the session. During the period from March to June, in addition to the work of the regular staff of military instructors, voluntary assistance was given by Prof. Anderson in Photography; Prof. Angus in Internal Combustion Engines; and Prof. Rosebrugh and Mr. J. P. Henderson of the Department of Astro Physics in Wireless Telegraphy. Mr. J. Patterson of the Meteorological



A GROUP OF VARSITY MEN IN FRANCE



ROYAL FLYING CORPS AT THE UNIVERSITY

Observatory also lectured to the cadets on Meteorology in the Engineering Building. Later on the work of instruction in the Royal Flying Corps under Major Fisher became known as the School of Military Aeronautics. It soon became apparent that the Royal Flying Corps would require to continue their work during the coming session. Arrangements were accordingly made to fit in these space requirements along with those of this Faculty to the best mutual advantage. This is substantially the condition up to the present time.

The following war work has been done by members of the Department of Mechanical Engineering.

Prof. Angus gave lecture courses on internal combustion engines to Flying Corps men.

Mr. Parkin and Mr. Thomson are at present on leave of absence and are engaged in the design and operation of munition plants for British Acetones, Ltd.

Mr. Billings during the summer of 1917 was in the employ of the Imperial Munitions Board on guage verification.

Messrs. R. J. Marshall, A. D. Sword, R. D. Ratz and A. T. Davis are employed by the Imperial Ministry of Munitions in testing the high explosive shell steel from plants forging steel in Toronto, Midland, Collingwood and Kingston, also in testing base plates for the Western Ontario District and shrapnel shell steel for the same district.

Early in September, the Professor of Mining in the Faculty of Applied Science, Professor H. E. T. Haultain, was appointed Vocational Officer for Ontario for the Military Hospitals Commission. The Military Hospitals Commission was appointed by the Dominion Government to take charge of the returned wounded soldiers throughout the

Dominion. An important part of its work is the Vocational training given to the men. During convalescence all men, physically and mentally able, are given an education which will be of use to them when they return to civilian life. This varies from simple bedside occupation, up to work in machine shop practice, automobile repairing, commercial courses, etc.

After discharge from hospital those wounded men whose disabilities are such that they are unable to return to their previous occupation are entitled to a re-educational course in some vocation suitable to their disabilities. Courses are established in a great variety of subjects, commercial office work, civil service, shoe repairing, motor mechanics, milling and assaying, veterinary surgery, music, etc. This work is done in special classes, in the technical schools, in the Universities and also by special arrangement with manufacturers in factories and work shops. This work was undertaken in the first place primarily out of a sense of justice to the wounded man, but it is being recognized more and more that it will be of immense benefit to the nation at large. Professor Haultain's work has been chiefly the re-organizing of this programme throughout Ontario, and he now has a staff of something over fifty stationed in the different parts of the Province. Most of the responsible heads in his Department are graduates in Engineering of the School, Queen's and McGill, who have returned wounded from the front. There is urgent need for more men of this type.

The following is a brief summary of Applied Science men on active service to December 11, 1917:

Number enlisted 920: 1st contingent, 71; 2nd contingent 132.

Number of casualties: Killed in action, 93; Missing, believed killed, 2; wounded, 174. Ten wounded twice; one three times; one, four times.

Prisoners of war, 7.

Commissions: lieutenant-colonels, 6; majors, 53; captains and lieutenants 523.

Number with Canadian and Royal Engineers, 194.

Number with Artillery, 197.

Military honours awarded as follows: Victoria Cross, 1; Military Cross, 41; Military Medal, 7; Distinguished Service Order, 8; Distinguished Conduct Medal, 6; Distinguished Service Cross, 2; Mentioned in Despatches, 17; Special Mention by General Haig, 7; Special Mention by Sir Max Aiken in his "Canada in Flanders," 1; Mentioned for Valued Services, 1; Croix de Guerre, 4; La Legion d'Honneur Croix d'Officer, 1; King's Birthday Honour, C.M.G., 1; Officer of the Order of Leopold, 1; Italian Military Medal, 1; Cross of St. George, 1.

No account of the activities of the Faculty of Applied Science in the war, however brief, would be complete without a reference to the brilliant achievements of Lieut.-Col.

C. H. Mitchell, D.S.O., C.M.G., etc. At the outbreak of the war, Col. Mitchell was a major in the Corps of Guides, a unit founded by Lord Dundonald, whose officers were all technically trained men. He had already attracted notice by the excellence of his work as Intelligence Officer of Military District No. 2, and was appointed Chief Intelligence Officer to the 1st Canadian Division at Valcartier and accompanied them to France in that capacity.

There he won recognition from the Imperial authorities and became chief Intelligence Officer in succession of the Division, Corps, and Army to which he was attached. He was awarded the D.S.O., C.M.G., the Croix d'Officier of the Legion of Honour and is an Officer of the Belgian Order of Leopold, and has just been sent to Italy as a member of the British Staff. Colonel Mitchell has originated a system of collecting and recording military intelligence which has been of great advantage and has been adopted in the British, French and other allied armies.



BAYONET INSTRUCTION CLASS



SCHOOL OF INFANTRY AT UNIVERSITY

The Evanescence of Antipathies

By ROLAND G. USHER,

Author of *Pan-Germanism*. Professor of History, Washington University, St. Louis, U.S.A.

THERE have existed in the past between Canada and the United States certain antipathies which have at times been manifested by actual hostility on the battlefield, but which have for most part been limited to the display of certain rancour by scholars and to a somewhat less extent by the general public. For many years these expressions of dislike and disapproval have been lessening in number and acrimony and it seems entirely probable that the result of the war will be to dissolve them entirely. It is very much to be hoped that a new comradeship between the scholars of Canadian and American universities may result; that these men, as the leaders of the intellectual community, may come to realize the extent of their power and may in particular exert it in the removal of antipathies between the two countries.

There is, to-day, no fact quite so clear as the lack of any good reason for such antipathy. Indeed, we may well say that there never has been between the United States and Canada, a well founded antipathy, one based upon a true divergence of interests, a reality of aggressive intent on either side, or the necessity of real defense. Suspicions there have been; even fears have been at times entertained, but the four thousand miles of unguarded frontier for one hundred years give eloquent testimony to the reality of mutual confidence. During the century, the two countries have grown along similar lines. Their democratic ideals have become essentially the same, their educational ideals essentially similar. Their economic interests are complementary and their community of interests complete. It seems incredible in the fullest sense of that abused word that there should now arise between the United States and Canada any dissimilarity of economic, political, or intellectual interest; that the United States should ever be inimical to Canada's safety or greatness and that Canada should ever be supposed to threaten American welfare.

Indeed, there are many of us in America who feel very strongly and are glad to realize that there are many in Canada who realize that the only obstacle at present to a cordial co-operation without fear of future regret and an understanding too mutual and complete ever to be supplanted is the memory of a few pin pricks and of a few tactless remarks. Real



CADETS OF CANADA AND THE UNITED STATES

antipathies, as I said before, there never were; real obstacles to co-operation never did exist. Imaginary difficulties have been created sometimes by one nation, sometimes by the other, and have been magnified, distorted, revived from time to time by certain misguided individuals in both countries to create an obstacle to concord entirely artificial, entirely without reason.

It must be and should be the work of the scholars of the two countries to make clear to their respective countrymen that there are no countries in the world at present which possess political independence and sovereignty between whom the record of differences and hostilities is as brief and inconsequential as that between the United States and Canada. There are indeed very few countries in Europe—take Germany or Austria-Hungary for example—between whose component parts there are not still antipathies, antagonisms, jealousies a thousand fold greater than the worst which the active imaginations of inflammable patriots have ever conjured up from mistaken data in the United States or Canada. The distrust and hatred between the Prussians and Bavarians, between the Hungarians and Austrians, between the northern Italians and the southern Italians, is many times more intense, and a thousand fold more real than anything the history of North America can show. The wonder is, not so much that some few differences existed in the past, but that they were so few, and that the reality behind them was so entirely lacking.

Two such countries in Europe would consider themselves bound together by so extraordinary an unity of interests and traditions that even a suggestion of suspicion, or hostility, would be an insult to the intelligence. So it should be in this hemisphere. So it would have been in the past but for the purposive work of German agents who have seen fit to keep alive what they could of such jealousies as had existed in order to prevent just such co-operation between the British Empire and the United States, as we may thank God exists now at this great crisis. May it long continue and may the University men of both countries never fail to understand the striking reality of the community of interests and traditions upon which it rests.



STATIONARY TRAINING AEROPLANE ON CAMPUS

The Canadian Red Cross Society

By DOROTHY MCILWRAITH

(Published by courtesy of "American Red Cross Magazine")

SINCE war was declared and her first contingent sailed away Canada has learned much of organization and co-operation; of love and sacrifice; of how not to do things as well as how to do them; of how to give and give and give again, of time, money and endless thought; how to make mistakes and see that they are not made twice; and now she is learning how to use the last ounce of her man and woman power that the cause for which she is fighting may triumph.

All of these lessons, and many more beside, have been applied to the work of the Canadian Red Cross Society. Canada was a very unorganized country and the Society had much to cope with before it became an efficient working body, but with the splendid example of the British Red Cross before them and with courage and enthusiasm the Canadians set to work.

When war broke out the Canadian Red Cross Society was in existence. It was not a branch of the British Red Cross Society, as are the Australian and Indian societies, but a separate chartered organization, although not at all an active one. Soon, however, branches began to be formed all over the Dominion, until now there is hardly a village from Halifax to Vancouver that is not doing its share of Red Cross war work. Not long ago the residents on the desolate Magdalene Islands far down the Gulf of St. Lawrence asked that the name of the treasurer of the Quebec Branch of the Red Cross be sent to them, by wireless, so that they might send to the Society money which they had raised during the winter. These people are cut off from the mainland all through the long winter months, but that did not prevent them from thinking and working for the men fighting overseas.

The scope of the Red Cross in Canada is clearly defined; to co-operate with the medical services of the army and navy in the relief of the wounded soldiers and sailors—that means to raise funds and supplies for the hospitals at home and overseas; and to provide for the prisoners of war. It is left to other societies to form voluntary aid centres and to care for the families of the soldiers.

The money is being raised systematically and it is wonderful that, despite the many calls of a warring nation, the different needs of the several branches are provided over and over again and amazing to see how much of the money comes in unsolicited.

By far the larger share of the burden of Red Cross work falls on the shoulders of the women of a nation, for they it is who are working constantly on the never ending hospital supplies. But the men at home in Canada have had much to do with perfecting the system whereby the smaller branches work in co-operation with the larger ones; the larger ones keep in touch with the head office in Toronto and it in turn is in constant communication with the Canadian Commissioner, Colonel C. A. Hodgetts, C.E.F., and his aides in London where

the actual work of distribution goes on. There is need, also, of men's help in the planning of the campaigns to raise funds which have been held in some of the cities and in the canvassing of those subscriptions which do not come in unsolicited.



CANADIAN HOSPITAL AT ST. CLOUD

Very little of the money has been raised by spasmodic generosity and none at all by "tag-days" or street contributions. These methods are felt to be undignified and unworthy of the great cause in which all the Allies are enlisted, and they do not represent the spirit with which Canada is making war.

Some of the money required is, of course, raised by the fees for the Red Cross Society which vary from the \$25 for a life-membership down to the twenty-five cents annually which the school children pay; but these go but a little way toward the huge sums of money which are being poured out for the care of the wounded.

The Canadian newspapers have been very generous in the giving of their columns for the publication of subscription lists, and many people all through the country have pledged themselves to give so much a week or month or half-yearly for the duration of the war or for a stated period. And this is much the most satisfactory of all the ways of giving, since things can be managed so much more easily and economically when there is a certain definite fund to count on.

In the Dominion Arsenal and in many other manufacturing plants the employees have pledged a full day's pay, in some cases every six months and in others oftener, in aid of the Red Cross. These, too, are definite gifts and, as such, are doubly valuable.

Early in the war there were a good number of elaborate concerts and entertainments given "in aid of the Red Cross," but people soon found that the time and energy spent on these would be much better diverted to productive work elsewhere, and they are growing fewer as time goes on. It is just as simple to say, "how much money will you contribute to the Red Cross" as to say "buy two tickets for the concert which we are giving," and the money has come in in even greater sums than before. The chances are that it will be found that the man who gave one hundred dollars last year will give two hundred this, and be proud of it. This is the spirit that the war is producing in the Canadians.

Besides outright contributions, money is being raised in many other ways. Women are running splendid lunch-rooms in many of the towns and cities, aided by volunteer waitresses, and these are not the sort of lunch-rooms where you pay a huge amount and go away hungrier than when you came in, but where good meals are served and good management shown. These have been running, many of them, for two years and more, and no one's enthusiasm has failed or energies flagged. The Red Cross has to be kept up by continual effort and many



A TORONTO MILITARY HOSPITAL

hours of hard work; spasmodic and unsustained enthusiasm is not going to win the war.

In Toronto there is a regular motor service for the gathering of waste paper, old rubber, glass, etc., and a surprising amount



BRIG.-GEN. SIR HENRY PELLATT ADDRESSING NURSES

of money has been raised for the Society by the sale of the collections. In other towns the school children do the collecting and, although this does not bring in such large results, still it has helped the cause a great deal. The children are proud to feel that they too are doing their bit.

Out of its funds the Canadian Red Cross is contributing to an ever-growing list of dressing stations and field and base hospitals in Canada and in England and in France and in Cairo, and with each new blow struck on the battlefields, the need for these grows greater. The torpedoing of hospital ships means that new hospitals must be established in France so that the wounded men may not be exposed needlessly to the perils of sea transportation. When this was laid before the Canadian commissioner and he was told what part the Canadians would be called upon to take in the provision of these new hospitals, he said, "Go ahead and get everything you need. The people at home have never failed us yet; the money will come all right." That is a proud record the Canadians have to live up to and they are doing it.

Money has also to be sent regularly to England for the parcels that are to go to the prisoners of war. Until recently these parcels were sent by individuals in Canada, but since the regulations as to what they may contain are very strict and it was found that many men were receiving sufficient to support two or three German families, it was thought better that all the supplies should go out from the central depot in London. Certain sums are voted from the funds of the Canadian Red Cross Society to cover the amount spent for the Canadian prisoners and for any others that certain branches may pledge themselves to provide for.

As soon as a man is officially reported a prisoner of war and his detention camp known, he is at once sent an outfit parcel and then further parcels at stated intervals. Ten dollars a month will supply a prisoner with food, but any donor of \$5.00 a month to the Prisoners of War Fund may "adopt" a prisoner and the difference is made up from the Society's funds. Two facts are assured of this work; that the prisoners urgently need these supplies and that the Germans deliver the parcels faithfully.

Many, many convalescent soldiers are now returning to Canada and hospitals are in operation for them all over the Dominion. It has been found that these men are happier near their own homes, so that numerous small hospitals have been established in preference to larger institutions. Here the men stay after their return to Canada until they are well enough to return to their own homes. These convalescent homes are under Government control, but much of the equipment, supplies and workers come through the Red Cross Society and the need for all three is never ending. Some of

these hospitals are sanitarium which must be kept up long after the war is over for the benefit of those men whose lungs are weakened by gas attacks and the long exposure in wet trenches, clothed only in rain soaked garments.

Besides the money spent on hospital equipment overseas and at home, and hospital equipment means ambulances, beds, surgical instruments, wheel-chairs, cutlery, linen, artificial limbs, rubber goods, drugs (an ever increasing source of expenditure), and the many extras not included in the Government issues asked for by the doctors. Besides all these calls the Canadian Red Cross has repeatedly given grants out of its funds to other societies—to the British, French and Serbian Red Crosses—where the need was even greater than their own.

Then, too, money must be constantly on hand for the purchase of supplies to keep the thousands of Red Cross workers all through Canada busy in the work for the cause to which they have pledged themselves.

At first people's enthusiasm carried them away and much precious time and material was wasted in unorganized effort. Soap and sweets were insecurely packed together, dressing gowns with infinitesimal armholes were hastily made and despatched to headquarters, socks that would only have fitted a wooden-legged man on showshoes had to be patiently unravelled; and worst of all, people without advice or even common sense attempted to make surgical dressings and bandages of all kinds. Enthusiasm is a splendid thing, but it should be coupled with directions; the directions should be good, authentic ones and should be followed to the last letter.

The little book which contains the directions by which the Canadian Red Cross lives, works and swears is called "War Work" and is issued periodically as new needs arise by the National Relief Committee.

In the larger cities the Red Cross has whole buildings given up to its committees and its workers while in smaller places people are working in their own homes, but no matter where or how the work is carried on, "War Work" is the means of standardizing it.

It tells how dressings and bandages are to be made (although it frankly says that the workers should have instruction from a doctor or a nurse) gives directions for the making of knitted goods, hospital suits, shirts, surgeons' ward coats, pyjamas, dressing gowns—tells what garments need patterns and what don't, gives lists of the countless necessary things of which the uninitiated would never think.

Necessary and indispensable as are surgical supplies the work of the Red Cross is by no means limited to them entirely. The wounded soldiers are brought into the hospitals practically destitute of all the necessities of life and the Red Cross fits them out anew. So the people at home are making shirts and trench caps and property bags and housewives and scarves and kit-bags. The contents of these last is limited by government regulations, so that there is no use trying to squeeze in a folding bath tub or a butterfly net. One thing much wanted is a razor for each bag, and as bags are being



A CANADIAN AMBULANCE CAR IN FRANCE

sent over constantly (there is a call for 25,000 just now) the supply of good second-hand razors in Canada is just about used up. But, above all and everything, the call is for socks and more socks. Never can there be too many socks, and those people who can knit socks are called upon to knit socks and nothing else. There is a corollary to that which is that those who cannot knit socks shouldn't, but that is another story; and anyway there aren't as many as there used to be. In some of the towns the school children are helping too. The school boards provide the wool and the older children turn their attention to socks and the smaller ones knit wash cloths or make simpler things.

Old linen, provided that it is strong, is in constant demand and on collection days the Red Cross workers just about have to move out of their quarters because the supply is so great. It is getting scarcer though, and more than one family is dispensing with sheets and table cloths that under other circumstances would be deemed quite good enough for another season.

The planning for the work on surgical supplies (dressings, wipes, bandages, hospital suits, pads, towels, etc.), on garments and on the other needs is carried on by untiring committees in the various branches of the Society throughout Canada. In many places the work rooms (generally in buildings given for the purpose) are open late into the night that people employed in the daytime may still help after hours with the sewing or cutting or planning. Those who cannot spend time at the committee-rooms are provided with work to do at home, the only condition being that the directions as issued by the Society are carefully observed.

The express companies are helping too, by carrying all parcels of Red Cross supplies free of charge. This is a big saving as supplies are being continually sent to the different branches and the finished work despatched overseas.

One thing the Canadian Red Cross has undertaken is the shipping of preserved fruit to the hospitals overseas. The

fruit must be in jars of standard size and well packed before it will be accepted for shipment and many thousands of quarts of all sorts of preserves have gone abroad, not only to the Canadian hospitals, but to the Belgian, French, and British ones as well.

In one Ontario town last year there was a "fruit committee" formed and a splendid system was evolved. Farmers from the surrounding districts gave the fruit, a glass factory supplied the bottles, some citizens contributed the sugar, steam from a laundry was utilized for the cooking which was done by volunteer workers, working under the direction of a professional canner. The result was a hundred thousand quarts or so of fruit sent overseas during the season.

Besides the necessities which are being sent continually to the hospitals there are the "comforts" which Canada sends to her wounded men that their lot may not be any harder than can very well be helped. The Red Cross sends over candies, tobacco, note-paper, mouth organs, books, papers, soap, chewing-gum (although Canadians are British through and through, there is that much American about them), and the countless other things that love and enthusiasm prompt.

In order that every wounded Canadian, in whatever hospital he may be, may profit by the supplies of the Society the information bureau in London receives the name of every wounded Canadian and corresponds with each man whether in France or Britain and sends him a parcel of "comforts." The department also does good work in corresponding with the friends of the sick and wounded, and in helping in the carrying on of that sad task, the tracing of the "missing."

In comparison with those of her allies, Canada's

efforts have not been large, but such as they are Canada is proud of them: immeasurably proud of her men who for more than three years have been fighting and proud also of the mothers, wives and sisters at home who are working loyally to prove themselves worthy of the men who are fighting for them and to make Canada worthy of her place in the Empire.



ACCOUNTANTS AT WORK IN BRITISH RED CROSS CAMPAIGN



PREPARING CHRISTMAS STOCKINGS AT RED CROSS ROOMS

When the Men Come Back

By PROFESSOR G. M. WRONG.

WHAT will the men be like when the glad days of peace have brought them home? It may be long before that day comes and they will have learned endurance. Running through their minds will long have been the thought that compromise is futile—that in a vital issue nothing important is settled until it is settled right. At this moment the last man who wants the war to end prematurely is the soldier. He knows what the war means better than any one else. He sees its daily horrors and sacrifices. And he knows that to end it without victory will only mean in time more war, greater sacrifices and a result possibly disastrous, since never again are we likely to have allies as strong as those whom now we have. When the men come back they will have the strength which comes from long endurance.

With strength they will have learned restraint. It is not from the soldier who has confronted the German on the battlefield that are heard words of bitter hate of the enemy. No one believes more firmly than the soldier that the German leaders have done diabolical things. Probably every Canadian soldier in Europe is convinced that the Germans did crucify at least one Canadian prisoner and possibly more. The men at the front know the horrors which the Germans wrought in Belgium, they know the hard brutality of the German military machine. But of the German soldier himself, with the possible exception of some Prussian regiments, they say that he is only obeying orders, that he

is a brave man, and a worthy foe. When the men come back they will know what it is to fight a political or any other fight, without hate or malice. They will do their duty because it is their duty, and will not require the hot flame of destructive passion to make them do it. They have looked the reality of death in the face and they will want reality still.

When the men come back they will have learned values. In the great poem on Lazarus who was raised from the dead, Browning describes the changed estimates which the man who had been through the gates of death had experienced. To him the talk of great armaments or the passing of a mule laden with gourds seem to be equally of little moment. The imminence of death to a sick child does not arouse him, yet

“ . . . a word, gesture, glance from that same child,

At play or in the school or laid asleep,
Will startle him to an agony of fear,
Exasperation, just as like,”

He is conscious always of relations learned by having seen death. What seemed trivial is now to him important, and what seemed important has become trivial.

The other day a pacifist said with a note of triumph that, if the men in the military camps felt free to do as they liked, ninety per cent. would drop their weapons and go home.

It is not to their discredit, but to their credit that this is true. It shows that they have no lust for war as war, that they hate bloodshed, that they would prefer to be engaged in the quiet, constructive tasks of normal life rather than to spend their energies on destruction. While it is necessary, however, they are more than willing to carry on as soldiers. The German militarist loves war as the noblest occupation for virile man. Our men, thank God, have no such blinded sense of values. They will fight on indefinitely to save liberty, but they will come home when liberty is safe. They know what they are fighting for.

When the men come home what will be their attitude towards social and religious problems? One thing seems certain. The old political war cries of party will not appeal to them. They will want to know what policy is behind these cries and will vote for a policy rather than a party. The parties will do well to take notice of the sense of reality in the men who come back. The party legions will no longer be

rallied by senseless appeals to suspicion and hatred. The blindness of party had gone far in Canada. It had led to an insane fanaticism which was destructive of efficiency in government. The war will have made new and gigantic tasks for every statesman. When the men come back they will want to think for themselves how these can be solved.

What the influence on religion will be of the men who come back is a matter of grave importance. It is

noticeable now that, though individually there is among the soldiers a deep sense of the need of religion, they are not very keen about going to church. While in the army they have grown accustomed to short services, lasting for only half an hour, services for men only, with a sermon five minutes long, as direct, pointed and practical as the wit of their chaplains can make it. When the men come back they will be impatient of prosy services and sermons. Here, too, they will want reality. They have looked in at the open door of an inferno, they have lived week after week in the presence of imminent death, they have witnessed awful scenes, they have seen loved companions die at their sides. For such men death is no longer a vague thing dreaded but known only at long intervals. It is a daily reality. When they have “gone over the top” they have believed that this familiar thing was there waiting for them and they have not flinched.

Some of the men will not come back. Those who do will not think of their lost companions too sorrowfully. There will be new tasks to face, a shattered world to rebuild. We who have not gone away must see to it that the men who come back have every chance to play a worthy part in creating a better society than we have yet known. In that old shattered world there were gross inequality and injustice. We must not expect that the new conditions will be ideal. One thing



A GROUP OF THE FIRST VARSITY RECRUITS, 1914

(Continued on page 124)

University Buildings and the War

BY R. A. SAMPSON

THE tremendous scale on which the present war has been waged has necessitated changes in the general course of everyday Canadian life, that formerly would have been thought impossible. These new adjustments have been caused by the fact that Canada knew little of what war means; and accordingly she was but ill-prepared for the sudden demands which the creation of a large war-machine entailed.

As Canada's army grew many problems arose. One of the most important of these was—"how are the soldiers to be housed?" This question became more pressing as the army became larger; especially after the policy of establishing special schools, for advanced training, was inaugurated. As a result of this need, buildings of all kinds were offered by their owners to the Government.

It is in this connection that the University of Toronto has rendered valuable assistance to the military authorities. All the buildings of the University cannot be adapted for military purposes; but those which are able to be so utilized have been cheerfully given up by the Board of Governors.

As is befitting, the University of Toronto Overseas Training Company is quartered in one of the University buildings. The Company occupies Gate House and South House in Burwash Hall, Victoria College; and also shares the dining-room of Burwash Hall with a part of the Royal Flying Corps. The lawn to the east of Victoria College has been used for pitching tents and also as a parade ground; and in addition the Company uses the field on the north side of Charles Street West for the purposes of drilling.

Another important body which uses some of the University buildings is the Royal Flying Corps. From some time in April 1917, when the Corps first took up quarters at 'Varsity, the space utilized by this unit has been constantly increasing. To-day it occupies almost one-half of the Engineering Building, where instruction in the various branches of the theory of flight is given. The Rigging Flight is established in the Upper Gymnasium at Hart House, and the Corps also has the use of five other rooms in this building. Lectures are given in various rooms of the Physics and Thermo-dynamics buildings; while examinations are held in East and West Halls of the Main Building. The sleeping quarters of the men are to be found in East House and South House, University Residences; and in North House and Middle House, Burwash Hall. Wycliffe College is also now being used for the same purpose. The Corps has the exclusive use of the University Dining Hall and, as has already been mentioned, the dining-room of Burwash Hall is shared with the Overseas Training Company. The Quartermaster's stores are in the basement of the Medical Building.

Since the Autumn of 1915 a third unit—the Provisional School of Infantry for Military District No. 2—has been located at the University during the Fall and Winter months. In the beginning the drilling of provisional officers was conducted on the lawns of the University, while lectures were given in the Medical building and musketry instruction in the Examination Hall at the rear of Convocation Hall. The same conditions held in the Fall of 1916 and the Winter of 1917; but in December 1916 some of the University Residences were taken over. At the present time North House, University Residence, is occupied by the School; lectures are

given in the Medical building; and the Examination Hall in the rear of Convocation Hall has been fitted up as orderly offices, Quartermaster's stores and messrooms.

In the Spring of 1917 The Military Hospital Commission took possession of part of Hart House. Here was established the Functional Re-educational Clinic—the only one in Canada at the present time—under the Commission. The purpose of this Clinic is to restore, as far as possible, to their normal condition, the impaired faculties of men who have been wounded at the front. This Clinic occupies practically the whole of the South Wing of the building. The Commission also conducts its School of Massage in Hart House.

During the Fall and Winter months, the School of Musketry for Military District Number 2, in addition, carries on its work in Hart House. The present Winter will make the third in succession which has seen this School at 'Varsity.

Trinity College has also done its share. During the Winter of 1915-16 the officers of the 124th Battalion occupied rooms in the West Wing of the Building, while the Convocation Hall and some of the lecture rooms were used for instruction purposes by the Battalion. Drilling and physical exercises were conducted on the campus and in the gymnasium. During the Winter of 1916-17 the West Wing was used by the 228th Battalion and the grounds again served for drilling purposes. At the present time Trinity House is being used as a Reception Hospital so that the Old General Hospital may be used for soldiers.

In addition to the above, mention must be made of the organization of women, working for Red Cross supplies, which has utilized a large portion of the Library Wing; and which has lately taken over the Ladies' Reading-room in the Library proper. Subsidiary Red Cross work is carried on in the University Schools, Bloor Street. The French Red Cross Committee of the Secours National are provided with a room in the Biological Building. Attention also must be called to the important work of manufacturing anti-toxin. The various anti-toxins, though now made at the recently-opened Connaught Laboratories, were first produced in the laboratories in the Medical Building. The University of Toronto Contingent, C.O.T.C., has of course been able to find room for its Orderly Room and Quartermaster's stores at 'Varsity. These are located in the Mining Building, College Street. Militia regiments, including the 9th Mississauga Horse and the 109th Regiment, have, moreover, used the Campus for purposes of drilling; and some regiments have used the miniature ranges in Hart House for target practice.

In the foregoing the number of different uses to which Hart House is being put is worthy of comment. In this building, which is occupied almost entirely by the military authorities, the important work of reconstruction is being carried on at the same time as that of instruction. A novel feature, which has been omitted above, is that in this building machine gun practice has been carried on with service ammunition.

Such in brief form, is an outline of the University's share in the work of accommodating the Government with buildings for the soldiers. If the need arises further buildings might be vacated, but the record of the University could well rest on the support already given.

When the Men Come Back

(Continued from page 123)

which the war will not have shattered is the frailty of human nature. But the war will at least have served to stimulate and revive our sense of justice and justice to the men who braved the loss of everything to save their country will mean a liberal measure of opportunity. When the men come back they will find it hard to settle down to a routine which will

seem dull after their vivid life at the front. War is brutalizing and in some of them we shall find qualities which do not please us. They will need to relearn some things which for a time they have lost. We shall need to show sympathy and patience. But it will be a happy day when the men come back and the daily tale of horror is over.

Varsity in Flanders

By R. A. UTLEY,
University College

IF I were asked to give my impression of what I saw at the Somme, I should say "Britain going into action". We left Flanders on the 7th of September and detrained early next morning at a lonely station about forty miles behind the firing line at the Somme. It wasn't till three days later that we actually came into touch with active operations. On the 11th, after a fifteen mile march, we billeted on the outskirts of a little village, which was at that time, the General Headquarters of Sir Douglas Haig. In peace time it would evidently be the sleepest of hamlets, but now it was all stir and activity. Everywhere guards with fixed bayonets—everywhere departmental headquarters and busy men and officers moving about between them. One "sensed" rather than really saw here the inner workings of the "Great Push". It was here too that we met a battalion of the First Canadian Division which had been "cut up".

Two more marches and on the afternoon of the 13th we encamped on a great plain close by Albert. It was a sight never to be forgotten. On our side of the valley were tens of thousands of men encamped—not only battalions but brigades—divisions, and across the valley easily seen against the rising ground were tens of thousands more, and over the hill lay *hundreds* of thousands—Kitchener's Fourth Army. The whole country was one crawling mass of men and horses and motor vehicles. Never in the world's history was such a mighty host collected. Elsewhere we had seen brigades on the move or battalions camped. Here army corps rubbed elbows with army corps—a battalion was a pebble on a sea shore. I was told of one German prisoner who asked as he passed through,—"But what part of the line did you bring these men from?". And his captor, enjoying his amazement grinned and assured him they were taken from no part of the line—they were fresh reserves. The German became very silent.

We marched on to our appointed spot to the music of a band giving a concert for the massed battalions about it. But that wasn't the

only music, German shells were dropping a few hundred yards from the band. It went on playing just the same, for the Germans were only throwing shells at random, and one place was as safe as another. Some horses were killed. It seemed

so queer—everybody either stood and looked or went about their business unconcernedly. It was enough to give one the creeps. If the Germans had only *known* they could have killed thousands—tens of thousands, but they were blinded. I didn't see a German aeroplane all the time I was there, and I saw hundreds and hundreds of ours—as many as thirty at a time, and twenty immense observation balloons in sight.

And in the semi-ruined town of Albert, which groups of us managed to visit in the evening, the Germans dropped occasional shells, and nobody paid any attention. If anyone was hurt, the ambulance came for him, that was all, everybody else went on about his own affairs.

It wasn't like a camp, for there were few tents. There were great pieces of canvas in spotless colours, stretched flat just off the ground for the men to lie under, and there were countless little "bivouacs" made of the men's waterproof sheets. Here and there were

big sheds or tents, Y.M.C.A. stores, or moving picture shows. It was more like a great fair. Here a football game, there a band concert. The bands played from morning to night, first one and then another. The shells stopped nothing but the individual unfortunates. Bands, picture shows, football games carried on as if there were no war, and all the time our guns

could be heard pounding the German lines hour after hour. Ninety hours of the fiercest bombardment ever known, and then the "fourth army" was to go over on Friday morning. What our part was to be we knew not. The Second Canadian Division was going over, we, the third, were to be held in reserve.

Friday morning, the fifteenth, the push began. We knew nothing of it for the guns kept pounding away, merely loosing their fury on the German communication instead of their front line; but just as we were about to have dinner, we got orders to stand to—then to fall in



A CANADIAN SENTRY



CANADIAN WOUNDED FROM AN ADVANCED POSITION

—and in a few minutes we were away. It was a sight to see. The other brigades had moved off ahead of us, and we could see the four battalions in line of march, and four more ahead and our own four behind—long snaky lines advancing parallel to one another across country several hundreds of yards apart.

We passed endless bands of prisoners under escort, going back—and a “tank”. It was returning in glory, having done its work. It reminded me of a game cock who has licked everything in sight, leaving the field very much satisfied with itself. And it was “some” gamecock with its little turrets sheltering machine guns and six pounders, and its great caterpillar treads; it looked immensely powerful—as it *was*. The boys called it the walking “submarine”. But it didn’t walk or crawl, or do anything but just move forward and onward with a relentless sort of irresistibility. Those who have seen one can well image the terror and disgust it would inspire in the Germans, for it smashes its way through and over everything, and it is proof against bullets, and shrapnel and shell splinters.

And oh! the guns we passed. Somebody said the Allies had concentrated ten thousand of them at the Somme. I could believe it. We saw guns of every kind and calibre—but mostly big guns. We passed single guns and batteries of guns, and as soon as we passed one we came to another. And everywhere they were moving artillery up—moving artillery up and troops up—everything going up but the wounded and prisoners.



CANADIAN TROOPS ON THEIR WAY TO THE TRENCHES

The usual procedure, when you are in the line and the enemy strafe you, is to ask for retaliation. The artillery ask you what you want them to put over and you make a modest demand, enough, in your judgment, to discourage Fritz, but at the Somme it is different. If you ask for retaliation the artillery just go ahead and pour a storm of *everything* on the enemy—shrapnel and high explosives and gas shells—they open up with field guns and heavy howitzers and 12-inch guns and trench mortars. If necessary they blast the enemy out of existence. Oh you should have seen us grinning as we passed our roaring thundering guns, and you should have seen the gun crews grinning back at us as they fed their babies. Infantry, artillery and air service—each does its share—and there are three hundred thousand cavalry, they say, waiting to do theirs when the time comes.

From the old British front line, as far as Pozieres, the roads are in almost perfect condition, having all been repaired and motor vehicles of every description ply them—ammunition and rations going up—wounded coming down. Not even the Strand ever saw such traffic. All along the roads are salvage dumps, and piles of stores and dressing stations and new gun emplacements. The great desert stretches of shell-scarred ground—every foot of it churned and tortured—is denuded of debris—it has been either salvaged or buried. Vague hints can be seen of the old trenches—a deeper furrow here—a pile

of smashed sandbags there—tangled wire further on. Beyond Pozieres the roads are rough, for they are still under shell fire, and only now being mended with broken stone. The ground



LEISURE TIME IN THE CANADIAN TRENCHES

is still covered with debris of every sort but the human debris, that has mostly been buried. The stink comes from the new front line, or from the German lines where the dead still lie. The scars here are often fresh. It is hostile country. The German guns continually “search” it, but they waste most of their ammunition, for they are blind. Their observation balloons are destroyed as fast as they put them up—their aeroplanes are kept five miles behind their own lines—and we now look down on them from the top of a ridge.

We stopped close by Pozieres, and had our dinner in a disused trench. Here I learned that the Canadian Second Division which took Courcellette, had done so very well that General Byng had decided to push a little further to the left, and we were scheduled to take one line of German trenches at 6.15 and a second at 6.30 p.m. We were all tickled. Thirteen months and more had some of us sat in trenches taking what the Germans chose to give us in the shape of shells and sniper’s bullets. And we had June to avenge,—those three days in June that cost us, in our battalion, most of our comrades. Now we should get our own back. The Pats at last were to have a chance to take a trench at the point of the bayonet.



GERMAN OFFICERS TAKEN PRISONERS BY THE CANADIANS

I think it was about four in the afternoon when we moved on, up the busy road beyond Pozieres. We passed endless ambulances and wounded men walking down. We made room



GERMAN PRISONERS TAKEN BY THE CANADIANS

for endless ammunition columns going up. I saw things rather vaguely, because, before we had gone half a mile, I was tired out. There was a Company and a half ahead of us in single file, and to "keep closed up" we had to run, and then walk slowly, and then run again with no rest. And each man of the Lewis Gun crews carried more than four hundred rounds, or about thirty-six pounds of ammunition in addition to his rifle and other equipment. With both hands full, when his rifle, slung over his shoulder, slipped down he had to stop to fix it, and then run to catch up. It was mighty hard going over the rough ground.

Presently we left the road and advanced, still in line, across a maze of battered almost unrecognisable trenches. Here we were under shell fire, but the enemy's shells were falling wild, and we were attacking from the side, at an angle that he evidently didn't expect. We should only swing around when we reached his line. We could see our barrage, and the bursting shells were all that indicated the enemy's position, for he was still under cover—never a bullet came our way. By the time we were close to our own barrage, I for one was nearly all in. My load seemed to be pulling my arms out of their sockets, and every step was agony.



GENERAL CURRIE INSPECTING A GERMAN HELMET

Thus I saw about me in a dazed stupid sort of way. The main impression I got was of advancing along and across recently pulverized and recently captured trenches, still full of our own and German, mostly German, dead and wounded. One poor fellow I'll never forget. He was most pathetic. He lay on his back, his legs buried, very white indeed, and bespoke us pitiably in German. I reckon he wanted water. He was young with a very fine face, and as gently unwarlike as a woman. I did so want to give him a word of encouragement, but I was gasping under my load and had to run just then again.

Aside from being all in personally, and of course the Company men were not—since they carried no extra load—taking the first line was a picnic. We actually failed to realize, even though we swung around in skirmishing order, that we were almost in the German lines, until the Boches, singly and in groups, crawled out of their ruined trenches, and ran towards us with arms upraised. They were for all the world like a flock of terrified, bewildered sheep. There was no resistance at all there, and we merely hurried them through our lines to be taken care of by those who came behind. One ran up and down in front of us, not understanding what was expected of him, stupid with terror; others in huddled groups plainly showed their relief when they saw us grinning at them. Presently they had all disappeared to our rear, like a herd of startled deer. It was more than funny, it was grotesque. They were like children—not fighting soldiers.

We took the German front line exactly on schedule at



A CANADIAN DRESSING STATION AFTER THE BATTLE

6.15 p.m., and our barrage shifted immediately to their second line, while we waited in the captured trench till it should lift again at 6.30. As far as I know we had suffered no casualties, and had kept well up to our barrage without running into it. The fifteen-minute rest in the captured trench made a new man of me. That was all I needed—a few minutes rest—and right away my exhilaration came back, and my clarity of vision. There was Charlie (Major Stewart) sitting quite unconcernedly, studying a trench map, for all the world like a cyclist at a crossroads. There was that hopeless Lieut. Williams, late Professor of English at Toronto University, hurrying all doubled up, to report that he had established connection with the next platoon. There was our sterling Sergeant Jim McGinnis, bayonet in the crook of his arm, wiping his forehead. He had acted as traffic officer in herding the German sheep down the ruined communication trench, touching up the undecided ones with the flat edge of his bayonet.

Myself, I lay beside young Ray Martin, corporal in charge of our gun, peeping over the trench edge. We could see the enemy massing in their shallow trenches to resist our onset. Ray Martin is a crack shot. Like lightning he had the gun trained to enfilade that trench, and unerringly he poured two magazines, a hundred rounds, into it. We could see them dropping like ninepins! His chuckles were good to hear.

Bloodthirsty? No. He is just a clear-faced boy, who knows and loves his little gun, as any good soldier does. It wasn't lust to kill in that sense—only desire to accomplish well the business in hand.

Sharply at 6.30 we went over the parapet again. We progressed quickly in little rushes, taking advantage of every shell hole. It was fine to see the way the boys went to it, glancing about to see that they didn't break their own line. My own business was to follow every move of Ray Martin, prepared to take the gun and "carry on" if he were hit.

But he wasn't, and I was. Half way across just as I was springing out of a shell hole, to make another dash, something hit me an awful wallop on the knee that flung me around and back into the hole. The shock was tremendous, but the very fact that I was in a loose jointed posture at the moment, lessened it to such an extent that I wasn't bewildered in the slightest. I remember distinctly that my leg vibrated rapidly, almost like a tuning fork, and then immediately went numb. Instinctively, feeling the smash to be in and below my knee, I pressed my hands tightly around my leg above it to check the blood. Just then another of our crew jumped into the shell hole.

"Are you hurt?" he asked, very superfluously.

"Rip the strap off my smoke helmet."

While I tied it around and tightened it with a pencil, he hesitated.

"Guess I better go on," he said.

"Yes—just lift those things from around my neck first". I remember reflecting that the Machine-Gun crew had to wait for the trench to be cleared before taking up their position, and my equipment was nearly strangling me. He did so.

"Which magazine shall I take?"

"Take mine, some of yours are empty."

And he was gone with the rest, and I was alone in my shell hole. I was perfectly satisfied just then. I felt perfectly able to look after myself, even though I was bleeding at an alarming rate. I recalled once having opened a champagne bottle without having a glass handy. I was worried lest I should run dry before I could get my trousers open, for I could feel the blood gushing like a fountain. I put another hitch on the tourniquet I had improvised above my knee, and then cut my pants open. I always carry a pair of scissors in my pocket. I felt quite alright, but I knew from my childish desire to cry with vexation when I couldn't get my field dressing open that I must be getting weak. I began to wonder whether I would faint or anything before I got myself tied up. You see I didn't know anything about the actual effect of loss of blood, and I didn't know whether a large artery had been cut, nor whether I had checked it, and the bandage wouldn't come open. Finally I cut it, and I got the holes in my knee tied up.

Then I discovered the leg of my pants was full of blood, and that it was welling up from another hole down in my calf somewhere. There seemed to be a pint or more. I hesitated

before I tipped it out. It seemed to be such a waste. No sooner had I got this hole tied up with my second bandage than I became aware by the dripping of blood—I couldn't feel



PAY DAY AT THE FRONT

anything yet—that there was a fourth hole further up. I had no bandage now, so I simply wound my puttee around the leg outside my pants. Then, to keep out dirt I wrapped my raincoat round the whole limb, and tied it on securely. I was very businesslike, you see. Somehow the necessity for quick action serves to steady me.

For a while I lay wondering how the fellows were making out. I could hear the bullets whistling overhead, and the shells exploding with a dull ceaseless monotony all around. I essayed to drag myself into a position to look over the top, and immediately I became conscious of pain. Still it didn't bother me much. I could see nothing but bursting shells and dropped back again. The exertion made me feel very weak and I lay still for awhile. I began to think "What had I better do"? Shall I attempt to crawl out now, or shall I wait for dark?" Shall I crawl while I still have strength before further loss of blood makes me too weak, or shall I wait for the R.A.M.C. stretcher bearers to come and get me?"

I finally decided to crawl. I figured out that the R.A.M.C. men probably wouldn't find me; that the Huns *might* succeed in a counter attack, in which case they would kill me where I lay, for I have sworn never to surrender under any consideration; that I'd lose my way if I waited and maybe my strength also. Wherefore, being a methodical person, I went through my kit. I stuffed in my pockets all my private papers, my scissors and knife, my "iron ration of chocolate", my automatic and ammunition and my "smokes". My gas helmet I carried in my hand.

I got as far as the top of the shell hole, and then had to lie quite exhausted. I decided it was no good. I couldn't make it—perhaps I might later. With that in view I took in my surroundings as thoroughly as possible, picking out landmarks to guide me in the dark. Lying back in the bottom again it struck me that perhaps it was lucky that I was too weak to crawl. One good look at the barrage the enemy were placing on their ex front line, just behind, satisfied me that my chance of getting through alive at that time was rather slim, and the bullets kept whistling by, and the shrapnel breaking all over the place.

I lay there nearly five hours. I was miserably cold and shivered in every limb, for I had nothing to put over me and night soon fell. I pulled my equipment and the deserted magazines on top of me—they at least created an *impression* of warmth. My "tin hat" I laid over my face. It was lonesome, very lonesome there. A man lay a few yards away, but he was most discouragingly dead. My thoughts? They were not of



CANADIAN GRAVES IN FLANDERS

home and mother, not of my past life, nor of anything in the world but the present situation. Now that I knew that I couldn't crawl, I speculated, half apathetically, on the prospects of being found, or of lying there and either bleeding or starving to death. I recalled how other chaps had lain for as long as sixty hours before being found. I reflected that I'd be awfully *bored*. I raised myself several times to look over the top. Once I saw a man running, low down, back towards our lines. I called for help, but only once, reflecting that he must be a messenger with *real business* on hand. But I noticed the direction he took, and after that I kept calling at intervals, in case help might come that way.

It was about eleven o'clock that I heard, very dimly, voices as of men working. Things had quietened down very considerably by now, the shelling was far lighter, so I determined to crawl out somehow. I found when I started that I actually felt a little stronger, evidently it was shock I was troubled with. By dragging myself by means of my elbows, and stopping to rest every few yards, I found I could make progress, though I strained my back, and from then on it pained more desperately than my knee. I floundered into all manner of holes, and nearly gave up trying to cross an empty trench, but I could hear the voices more distinctly then, and knew that I was backing in the right direction. It was only a few hundred yards but it took me over half an hour.

At last I dragged myself over a parapet and fell in beside some men digging like mad. At first they paid absolutely no attention to me, and I lay there panting. After awhile one asked me if I was hit. I was too done up to say more than "Yes, leg". It was almost funny—farcical. Eventually one of the men called for a stretcher bearer, and another chap, a big fellow came along and carried me, on his back, further down the trench to a ledge on which a dead man was lying. Two of them shoved the dead man over the parapet, and laid

me down in his place. Oh! but it was comfortable after my crawl. An officer came along, spoke to me, and then set out to get someone to carry me out. This was extreme good luck, and after I had had a drink I felt quite bucked up. It's funny how loss of blood makes you so thirsty. I could have kept on drinking all the time.

Two officers' servants volunteered to carry me out. They were mighty good fellows. It was an awful trip for all three of us—indeed I don't know which suffered most. Even a small man makes an awkward load, and over such ground. They found it impossible to navigate the trench corners, so struck across the open, and took a chance on the shells. Half a dozen times they had to drop me and flop, and I was splashed with dirt. My steel helmet was supporting my knee, and I wished I had another to cover my face. But the shells all missed us, and though my bearers lost the way many times, and were pretty nearly all in before we got there, we *did* get there.

And in the field dressing station was an officer who knew my sister quite well indeed, and who had been bidden to look out for me. It was surely a strange way to meet him. I remember asking him to give me some morphine—I couldn't think rationally for the pain—my mind kept going over and over a few stray thoughts—memories of a sergeant who, on passing a nice clean hospital train, had wished he were in it; memories of the dead man who had lain a few feet from my shell hole, and a wish that I had noted who he was; attempts to figure out how a bullet could have made four holes in me; regrets that I hadn't been able to save my rifle—a perfect weapon. These things I thought of all in a jumble. But he told me to stick it out, so I smiled a twisted smile and said, "All right, Sir", and then they carried me a little further and put me in an ambulance, and I was started on the road to hospital.

Letters from an Airman in France

(Extract from Letters by Lt. M. W. Waddington, R.F.C., Trinity College)

THE following day our squadron had a rather big day in the fighting line. I went out on one of five of our machines on the 12-2 p.m. offensive patrol. At about 1.15 p.m. we saw about twenty Huns approaching and got ready for a warm time. We had it. Before many seconds had passed we were right into it. I noticed one machine directly above me so gave him a hundred rounds to go on with. I had no sooner finished that than down he went in a vertical nose-dive, and I am pleased to say was seen by our anti-aircraft batteries, who confirmed my report to the effect that I had driven one machine down out of control. So presumably, I have bagged my first Hun. Meanwhile, the rest of our little quintet were far from idle. One of them single handed charged right into five enemy aircraft and actually sent one down in flames and another out of control. Then he came back and rejoined the rest of us. Another of our machines sent another Hun down in flames and by this time the other Huns thought they were getting rather too warm a reception, so made off and left us to carry on with our patrol unmolested. All five of our machines returned safely."

"Yesterday, although it was very cloudy and misty, we went out on a line patrol for a special purpose. The King was in a town down below us, and we were sent up to enable him to see how we operate. It may have been O.K. down below, but over the Hun lines and ours it happened to be raining, and the rain just felt like bullets all over our faces. This, of course, is due to the great speed of the machine. There wasn't a single Boche up, but we got plenty of Archie before returning. Our squadron commander was in to see the King and brought back some rather interesting news. The King had been up, and into the huge mine craters over which we fly every day. He wanted to go right into the front line trenches, but was requested not to and so didn't. He met the colonel in command of our wing, which consists of four or five squadrons, and told him that the great battle won last month

on the Western front, was due almost entirely to the perseverance and bravery of this wing. The colonel also told our major squadron commander that our offensive patrols were simply magnificent. On several occasions, without our knowledge, the colonel had been up in a machine and watched from over the lines, and was evidently very warm in his praise. This is a very famous squadron, it has done some splendid work. Before I came in May they accounted for forty-two enemy machines and last month were responsible for the break-up of the great German travelling circus of thirty machines, all of whose pilots are the very pick of the German flying corps. Since I came this squadron has accounted for, I fancy, some twenty German machines, while the Huns have not driven even one of our machines down during that time.

"On the evening of the 16th of July I was in what I believe, was the biggest aerial fight of the war. Altogether there were between eighty and one hundred machines in the air, for once more or less evenly divided between us and Fritz. There were so many that it was quite impossible to count them. Seven of our squadron's machines were up and handled most of the Hun traffic which consisted of their best machines, known as albatross scouts. Our seven machines accounted for seven of the enemy aircraft, while three others were driven down by machines from neighbouring aerodromes. So ten Huns were rendered "rapoo" during the scrap, after which the Boche made for home as quickly as possible. One of the seven done in by our machines constituted my third one. The marvellous part of it was that all of our machines returned safely. This took place between seven and nine p.m. about fifteen miles the other side of the German line, and at heights varying from 1,200 to 1,800 feet. Nature gave this scrap a more or less novel character, as we were screened from good old Mother Earth by a huge formation of cumulus clouds whose height would be from 5,000 to 8,000 feet."

The Response of the British Universities to the German Menace

By SIDNEY CHILDS, B.A.

IN the present war, the power of our universities to render aid to the State has been subjected to the most crucial test, and none of our public institutions have emerged more gloriously from the great ordeal. The very objects for which they existed were to foster and develop the arts of peace, and yet when war came the university life of Britain responded to the call with vigorous and useful service. On their part there has never been any misapprehension of the great issues at stake, but a grim determination to bring the conflict to a victorious close.

Many of the university institutions of Britain were built in days long past to the memory of men who have given their lives for the unity of the nation and the freedom of man, and those ancestors, whose faces look down from many a wall and storied window in our ancient colleges, have no reason to be ashamed of the sons fostered and brought up within those walls. The universities of Britain, old and new alike, have met the

national emergency and eagerly their staffs, graduates and undergraduates have offered their powers, hopes, ambitions and all they had to offer, that the ideal of freedom which they inherited from their fathers might be preserved inviolate from a cruel foe. Duty spoke and every true heart "vibrated to that iron string." Before the war some pessimists doubted whether the British universities were really discharging their proper function in the national economy, but all doubts have been shattered now, for the universities have become powerful assets to the nation. There is no doubt that after the War steps will be taken to make it possible for a larger number of students to go on from the Secondary Schools to gain fuller knowledge in the Universities.

In this war the universities of Britain have mobilized their whole strength to serve the nation. In the process they have suffered grievously, but they have been proud that they had so much to offer and have hidden their pain. Long lists of

dead have been published with scarcely a comment. Their spirit is aptly illustrated by a letter from one graduate who gave his life. In a letter addressed to his parents for delivery in case of death, he wrote: "I have done my duty as a man is bound to do, and I have died with a joyful spirit." Another wrote: "It must be a fine thing to have some link with the hosts of great spirits who have witnessed to our national greatness, and are in a sense England triumphant, while our warfare is still here; and at such moments I feel the oneness of the nation with its dead—and those who will die in the war for righteousness and justice—and will be thanked forever by the little nations for whom they have secured a free existence, unmenaced by powerful and interfering neighbours." The patriotism of these young men who went forth to dare and die for the land they loved, that she might hold up her head with honour among the freedom-loving peoples of the world was of an altogether different type to that blatant self-assertion of the German who went forth that Germany might dominate the peoples of the earth and inflict upon them her much vaunted "Kultur." It is beautifully illustrated by Rupert Brooke, the soldier poet of Cambridge, in his famous sonnet:

"If I should die, think only this of me:
That there's some corner of a foreign field
That is forever England. There shall be
In that rich earth a richer dust concealed."

Upon the battlefields of Europe these young men are proving themselves fit champions of the high ideals they discussed so eagerly in the peaceful halls and cloisters of Britain's venerable halls of learning, and in the great future the Empire will go forth with her "manhood faultless and her honour clean" because they, and others such as they, led our race at the call of duty.

Facts, however, are more concrete and impressive than words, and the contribution of the British universities is best gauged by the record of what they have



Oxford, Balliol College and Martyrs' Memorial.



Oxford, St. John's College. (Founded A. D. 1555)

actually accomplished. It is very difficult to give exact figures because graduates of the British universities are scattered in all parts of the Empire, but the figures given are under rather than over the actual numbers engaged. For the sake of quoting figures from all of the sixteen universities the figures mentioned are taken from the beginning of 1917, and since then many additions have been made both to enlistments and casualties. At the beginning of 1917 at least 67,600 past and present members of the sixteen British universities were enrolled as "On Active Service," and of this number at least 6,630 had laid down their lives upon the altar of sacrifice. These figures are in themselves a remarkable tribute to the spirit which moved the University men of Britain to go forth with the firm conviction that their country was bound by honour and morality to intervene in the European struggle; no matter what the cost might be to themselves. But figures do not tell half the story. Neither do they reveal half the extent of the loss to the universities. One has also to think of "those who would have been their sons." These too, they gave. That stream of young life which in normal times flowed from the great Public Schools to the Universities has for over three years been diverted from its usual channel, and instead of going from the Public Schools to the Universities that young life has gone to the battlefields where the Empire held the hordes of Germany in check. Like David of old these young lads "went down to see

how their brethren fared," and to match themselves against the Philistine. Many of them will not come back and the universities are the losers. At the end of 1916 the President of Magdalen wrote: "No city in England is more changed by the War than Oxford. None speaks its effect more eloquently than this fair, mournful witness." In *The Spectator*, a contributor wrote of Oxford as follows: "Old Oxford's walls are grey and worn,
She knows the truth of tears,
But to-day she stands in her ancient pride
Crowned with eternal years.
Gone are her sons; yet her heart is glad
In the glory of their youth,
For she brought them forth to live or die
By freedom, justice, truth."

No adequate idea of the work of the universities can be conveyed without a mention of the variety of service they have rendered. It has been said that this war is not a war between the soldiers of the warring nations but between the whole of their citizens. The significance of such a statement is realised when one sees how the universities have mobilized their chemists, engineers, physicists, doctors, specialists, agriculturists, economists, technical and research students, and placed them with their laboratories at the disposal of the nation. The men listed as "On Active Service" by no means exhaust the contribution of the colleges in "man power." Many college buildings have been used for hospitals, laboratories for scientific work in connection with the manufacture of munitions, and for training purposes. In many lecture-rooms classics and mathematics, history and philosophy, have been supplanted by instruction in military tactics and the arts of war. It would require volumes to record all that has been achieved by the various departments of the British universities, but enough has been told to indicate that they are living up to the best university traditions of loyalty and public service. It must also be added to their eternal glory

that nearly all their sons were volunteers and responded not to external compulsion, but to the call of an inward passion for the rights of free born citizens and peace loving peoples.

"We miss them sorely, as we look
At the seats where they used to be,
And try to picture them as they are—
Then hastily drop the veil—for, you see—
They are making history."

"They are gone, one and all, at duty's call,
To the camp, to the trench, to the sea.
They have left their homes, they have left their all,
And now, in ways heroic—
They are making history."

The truth of the poet's words is realized when one understands that colleges which before the War contained one hundred and fifty now contain six or ten, and that the tiny rivulet of academic life which still flows on in our great universities is almost lost sight of amid the military activities which turn their buildings into strange uses. But in the midst of war many a university man cherishes happy memories of the college where he learned to appreciate the finest things of life.



Oxford, Bodleian Library and Schools, Tower.



Oxford, New College. (Founded A. D. 1386)

The Medical Faculty and its Connection with the War

BY DEAN CLARKE



THE Medical Faculty of the University of Toronto has played its part in the War most brilliantly and the individuals who have gone abroad have made their sacrifice as cheerfully as those who have been unwillingly forced to play the more difficult role of "doing their bit" at home, under the fire of criticism indulged in by many who do not pause to reflect on the reasons why these men are at home. It is of course just as important to educate the boys who are to go abroad, or to fill the places at home of those who have gone abroad, as it is to join an overseas unit.

The University authorities have been keenly alive to this and have had to act in an apparently arbitrary manner in making selections of those to go and those to stay.

Some seventy-two of the University Medical Faculty have gone overseas and have won many distinctions, as well as brought honour to the University. It would be almost invidious to single out the men who have so unselfishly

[Note]

The editor regrets that a fuller record of enlistments of the graduates and the undergraduates of the Faculty of Medicine is not available, apart from the general records of the Honour and Active Service Rolls. Many graduates of the Faculty of Medicine are on active service of whom it is impossible to secure definite information. In addition to these some two hundred and twenty graduates and undergraduates who were in college when War was declared went overseas as soon as their course was completed, and during the last three years there has been a steady stream of men leaving the college to

join various active service units, both combatant and medical. In the first academic year many members of the Medical Faculty joined the 25th and 26th Batteries, C.F.A.; No. 2 Casualty Clearing Station; No. 5 Field Ambulance and especially No. 4 General Hospital, (University of Toronto.) For the latter unit forty three officers were drawn from the members of the Faculty of Medicine, under the leadership of Colonel J. A. Roberts. The Medical Faculty has been closely identified with No. 4 General Hospital and the articles on the Hospital and also on the Connaught Laboratories must be read in conjunction with this brief account of the Medical Faculty.

played their part, but a few instances must be detailed:

General Fotheringham was specially honoured by the King on more than one occasion, and has won a high place in the Army. Colonel Roberts, Colonel W. B. Hendry, Colonel Amyot and Colonel Rudolf have brought glory to the University, and Major Duncan Graham has been specially successful in the field of Science. However so many instances of distinction have been reported that the University feels that its medical sons have lived up to the traditions of their Alma Mater.

In an account of the operations of No. 4 General Hospital University of Toronto, are detailed a few of the events of interest. Colonel Primrose, Colonel Cameron and Colonel Bruce are honoured by being made consultants, the former in the C.A.M.C., and the latter in the R.A.M.C. It is a simple matter to overlook names when so many are playing their part so well—hence a general statement is all that is possible.



THE MEDICAL BUILDING

The University of Toronto Contingent of the Canadian Officers' Training Corps, upon its formation in October 1914, found enthusiastic support among the Medical students. Two of its twelve companies were assigned to the Faculty of Medicine, under Captains E. S. Ryerson and W. F. McPhedran. Most of the graduates from 1915 to 1917, as also the undergraduates of that period who have gone on active service were formerly members of the Corps.

The University, as a whole, has every reason to be proud of the service rendered to Country and Empire by the Medical Faculty. The list of Honours won by its members is already a long one and is being steadily augmented.—Editor.

The Ontario College of Pharmacy and the War

By DEAN HEEBNER.

THE terrible crisis that was set on foot in August 1914, is still the foremost issue that confronts the nations of the world.

In defence of justice, liberty, and our very existence, and for the utter annihilation of Prussian demonism, the sons of Canada still continue to mingle their blood with the soil of Flanders.

From the beginning of hostilities, the graduates and undergraduates of Pharmacy have nobly responded to the call of duty, the country, empire and world-civilization.

Though the preferment of rank in military service that has been enjoyed by the graduates of dental, veterinary and medical science, as well as by graduate nurses, was not granted by the military authorities to pharmaceutical chemists who offered their services, yet this crude and unwarranted ruling did not induce them to flinch from their duty, nor diminish their loyalty; and they are found serving in all branches of the army, from front line trench to field and base hospitals, as well as in the aviation and naval services, in all ranks from private to colonel; one member of the professoriate has attained the rank of general.

Many of our brave boys have won distinction on the field of battle,—a number of whom (too great a number) have made the supreme sacrifice, and will never hear the plaudits of those who eagerly look forward to the time when they may welcome home the noble defenders of those virtues which the allied nations are struggling to



maintain; when the pæons of victory have been rung, and peace, blessed peace, again reigns supreme. Pharmacy will ever mourn the sacrifices made, and honour and respect the memories of her brave boys who fell, including Judd Ellis, Lieut. Wallace Watson, Roger Roberts, Charlie Stewart, Dr. H. S. Monkman, James Low, Gordon Rogers, Stanley Vogan and many others.

The enlistment of graduates in Pharmacy has created an exigency in so far as qualified pharmaceutical chemists are concerned throughout the entire Dominion, and there can be no improvement of the situation so long as the war lasts.

The enlistment of undergraduates for military service, has naturally brought about marked reductions in the number of students at the O. C. P. In 1915, the number registered fell twenty-seven per cent. below the average normal attendance of recent years; in 1916 fifty-six per cent.; and in 1917, forty-six per cent. All students now in attendance, who are classed as A2, under the M.S.A., have been exempted from military service until June, 1918, when they will have completed the examinations of this session.

In the spring of 1915, two members of our professoriate left for overseas service, viz: General J. F. Fotheringham and Lieut.-Colonel Graham Chambers; the work in the department over which these professors

officiated has, during their absence, been carried on by Prof. Geo. A. Evans, Phm.B., R. Oscar Hurst, Phm.B. and the Dean.



ONTARIO COLLEGE OF PHARMACY

“And you from the Dominions, from the Lands beyond the Seas,
You have given us without stinting, of your lives, your energies;
By the blood we shed together we are kin as ne'er before,
You have knit your hearts to our hearts henceforth for evermore.”—OXENHAM.

The Universities and the Returned Soldier

By SIDNEY CHILDS, B.A.

CANADA has been thrilled as she has heard of the heroic deeds of her soldiers on the battle fields of Flanders. Their desperate defence of Ypres in the Spring of 1915 and their dashing captures of more recent date have touched the imagination and inspired the people of the Dominion. Many of those men are now returning wounded and disabled. They fought in Flanders against the German hordes; they return to engage in another struggle in which they need all the assistance the country, for which they fought so valiantly, is able to give them. Their struggle is to win back their health and strength so that in spite of wounds and maimed bodies they may once again find such a position in the economy of the nation as to be self-respecting citizens, respected and honoured by the country for which they risked their all.

It is to assist them in this task that the Military Hospitals Commission has been appointed and has pledged itself not to rest content until every soldier disabled in his country's service has recovered the utmost possible degree of power and energy for success in civilian life. The Commission carries on its work in a great chain of institutions stretching from coast to coast of the Dominion. At first large private houses were loaned by individual citizens but as the stream of returning men increased in volume the Commission found it necessary to embark upon a large building programme and although it now has some seventy institutions under its control it is still being heavily taxed to provide sufficient accommodation for the work of healing and re-education. Of the soldiers who have returned to Canada about five per cent have been found to be disabled for the kind of work at which they earned their living before enlistment. To meet the needs of these men the Military Hospitals Commission has formed a special department of vocational training which aims to re-educate them for a new occupation. The soldier's choice of a new trade has to be confirmed by the Commission on the recommendation of a Soldier's Training Board, consisting of a Medical Officer, a Vocational Officer and generally a member of the Employment Commission of his province. In this work of rehabilitation the Universities are co-operating zealously with the Military Hospitals Commission and offering all their engineering, technical and agricultural facilities and in many cases the services of professors and instructors with their equipment. These departments in the various Universities are adapting their courses to the needs of the disabled soldier.

Toronto University is doing pioneer work in a special branch of re-education. This work is termed functional re-education and is described in detail in a separate article under that head, so it is merely noted here. Hart House, University of Toronto, has the unique distinction of providing accommodation for men in training for the battle front and also for the re-educational training of those who have returned disabled.

McGill University, Montreal, has done splendid service for the returned soldier. The engineering faculty trains men for work as steam and electrical engineers, motor-mechanics, draughtsmen, machinists, tool-makers, pattern-makers, electricians, etc.

When the 900 bed hospital now under construction at Ste. Anne de Bellevue is completed, the equipment of the Macdonald Agricultural College will also be used to provide courses in agriculture and kindred occupations.

A separate article indicates the extent to which Queen's University, Kingston, is assisting the Commission in providing hospital accommodation and vocational facilities. Here, as elsewhere, the University authorities are adapting courses and adding new subjects to the curriculum.

In the west the University of Saskatchewan has placed its splendidly equipped faculties of engineering and agriculture at the disposal of the Military Hospitals Commission. The faculty of Agriculture is doing its utmost to fit returned soldiers for capable service in the great agricultural industries of the vast prairie province.

The sister Universities of British Columbia, Alberta and Manitoba, in spite of the many handicaps the war has placed upon their youthful activities, have all rendered valuable aid and stand ready to meet to the limit of their power any requests of the Commission.

The Universities of the far east, Dalhousie and Truro are equally keen to do their utmost in rendering assistance and have already given valuable aid.

It will be readily understood that it is of immense advantage and economy both in money and time to have these ideal training plants adapted and used so freely for the purposes of vocational training and re-education. The fact that they have been so freely offered indicates that the Universities are as keenly alive to "after the War" problems as they have been to the immediate needs of the country for men, money and resources to carry on the War.



HART HOUSE, UNIVERSITY OF TORONTO, QUEEN'S PARK

Functional Re-Education at Hart House

By E. A. BOTT, PH.D.

AMONG the problems presented by the wastage of war, that of conserving and restoring the physical and mental powers of each disabled soldier is of unquestionable importance. An effective means of improving conditions involving derangement or destruction of normal voluntary functions has been found in appropriate graduated exercises. The special procedures that are employed to call forth such disabled functions are known collectively as "Functional Re-education".

The war did not find this sort of re-education, but has widely fostered it. Previously, on both sides of the Atlantic its principles were applied to a limited extent in the treatment of disabilities from industry and also from certain diseased conditions. Now, suitable re-education is widely recognized in Military Hospitals as a means of hastening the convalescence of many types of disability, such as limitations of joint movement and of muscle strength resulting from contractures, adhesions and scars, paralyses from damage or disease of the nervous system, and physical or mental disturbances appearing in conditions of "shock". The war is not only firmly establishing the therapeutic value of functional re-education, but is rapidly enlarging our conception of the range to which it may be applied with success.

The principles of functional re-education as developed at Hart House may be stated under three heads.

First, the standpoint is curative rather than occupational. The aim is to restore a broken man to his normal condition as completely and as quickly as possible. The special measures used toward this end are distinct from, but are undertaken in conjunction with such other post-operative treatment as, for example, massage, electro-, hydro-, thermo-therapy and curative workshops, the latter providing a patient with such manual employment as will call his particular disability into action.

Secondly, the procedure is psychological. In the restoration of voluntary functions "cure" is equivalent to "control". An attitude of intelligent co-operation and of determination to improve must first be inspired in a patient. He is urged to be his own doctor even while he is being guided and assisted through each step of his treatment. Individual direction by skilled and tactful operators is essential. Simple mechanical appliances for bringing specific disabilities into operation are indispensable and the appliances are fitted with metrical devices which record and stimulate daily performance by appealing to the eye or the ear. In this way a patient is brought face to face with his incapacity and is encouraged to use his whole power to overcome it. The psychological basis of this treatment differs from that of the curative workshop in requiring the patient to concentrate upon, rather than to forget his injury. The advantage is that he attacks his disability directly, watches his improvement from day to day, and aims at a consistent recovery.

Thirdly, the treatment is self-educative. When a patient has learned to wrestle with the severer points of his case for forty minutes each day, the habit of self-treatment at frequent intervals during the day soon grows. Point by point is thus taken in hand and mastered, and the danger of neglecting the finer co-ordinations is overcome. In this way the spirit of accomplishment and of sustained initiative which re-educational methods foster during the period of convalescence is an important contribution toward the larger task of rehabilitation.

In May 1917, the University Re-educational Work vacated its cramped quarters in the Psychological Laboratory and entered upon a new era of development. This became possible through the simultaneous intervention of two outside forces. On one hand, the Massey Estate offered spacious quarters for the work in Hart House and on the other hand the Military

Hospitals Commission of Canada took over the work with the object of applying its principles in military hospitals throughout Canada.

During the six months this work had existed prior to entering Hart House, sixteen patients had been treated, and the daily attendance had grown to nine. At present, eight months after entering, two hundred and fifty cases have been handled and seventy-five are attending daily by motor service from six local hospitals. Of all the cases approximately one quarter have been greatly benefitted after attending for a period of from eight to ten weeks, one-half have improved satisfactorily, and the remainder, either through being unsuitable cases for re-education or through being transferred before the treatment was effective, improved only slightly or not at all. The value of re-educational methods for many types of cases returning to Canada in large numbers is now recognized. The national advantage lies, not merely in shortening convalescence and reducing pensions, but also in stirring patients to action and so increasing the capacity of partial effectives.

In the hospitalization of Canada, Hart House is to be a centre for the development of therapeutic methods, and for the training of men and women workers. This programme is now going into effect. The School of Massage, under the Hospitals Commission has been admitted to the west wing of the building. A standard set of twenty pieces of re-educational apparatus has been planned in conjunction with Major McKenzie of Pennsylvania, and is now being built in quantity in the workshops of the Commission at Guelph. A number of sergeant instructors are already receiving training in re-educational methods, and the present pupils of massage will shortly be given a practical course upon a model set of appliances.

The arrangement of work at Hart House is according to the extent and kind of injury. The second floor is devoted to intensive work for the upper extremity, the ground floor for the lower extremity, and a lower floor for games and special gymnasium work. A number of individual rooms are reserved for cases requiring more purely psychological treatment. In the arm-room and leg-room each patient is assisted by an instructor who is in training, and the same intensive treatment is maintained, as far as possible, in the competitive group system of the gymnasium.

In addition to this routine floor-work, special types of treatment and of research have been commenced, a first-class machine shop having been installed by the Commission to provide the necessary facilities. For amputation cases special appliances for billiards, tennis, croquet and bowls have made recreation a means of enabling patients to develop the control and strength of stumps prior to being fitted with proper limbs. Graphic and photographic methods of recording the progress of cases are receiving special attention. The efficacy of massage and of electrical treatment under different conditions upon both human and animal subjects is being tested by special laboratory methods.

The staff in re-education have been assisted in various ways. Special credit is due to the work of a full-time volunteer corps of women helpers who have taken a course of instruction, and give individual assistance to patients under supervision; to the co-operation and encouragement of medical officers in local hospitals; to the kindest of citizens who are assisting in the transportation of patients; to the many liberal donations toward special phases of research; to the University which through the personnel of its staff in several departments is giving invaluable assistance to technical branches of the work; finally to the chief officers of the Military Hospitals Commission who have facilitated in every way the experiment of functional re-education undertaken at the University.

Queen's University and the War

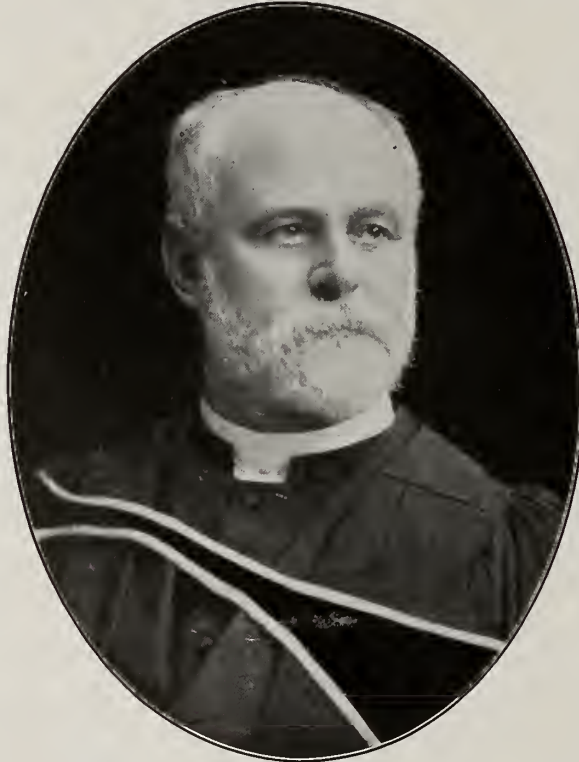
BY PROFESSOR HERBERT T. WALLACE

THE call to Service, "in Church and State", had often been sounded in the ears of Queen's men, and not without a worthy response, but none ever dreamed of such a service as the young manhood of Canada has been called upon to render. It is a tribute at once to the clearness of the ideals cherished by the young men and women of Canada and to the soundness of the instruction received in college, school, and church that the response has been what it is. Especially have the universities of the Dominion, from coast to coast, given proof of the soundness of their learning and their right to leadership. It cannot be said that this response of Canada's University men has been only what we expected or hoped for, since no one entertained even the imagination of what these years held in store for us. Queen's joins hands with the University of Toronto and all her sister universities and colleges in this supreme hour of the testing of our national life, in the firm and unshaken conviction that all her sacrifices have been but the fitting expression of ideals long cherished and of their whole life and doctrine, and that the future must be faced in that same resolute, indomitable spirit. Both students and staff of Queen's bear greeting to the University of Toronto and express their gratification in being invited to be thus represented in this VARSITY MAGAZINE SUPPLEMENT, which they have interpreted as a recognition of the unity of our ideals and sacrifices.

Queen's was just like the whole of Canada and indeed the

whole Empire in August 1914, in being almost totally unprepared to take her part in this great military enterprise in defence of the world's freedom. The "almost" is however significant. Great Britain's "contemptible little army", which perhaps turned the scale of victory and defeat, represented just that difference between total unpreparedness and "almost" total absence of preparation. There was then only one military unit at Queen's and the University will ever cherish the memory of the No. 5 Field Company of Canadian Engineers and of the man who was responsible for its inception, Professor Alexander Macphail, now Lieut.-Col. Macphail, D.S.O., C.R.E., of the 1st Canadian Division. That unit was one of the first called out for service; it is said to have been the first distinctively university unit under arms after the War broke out. Students and graduates, all science men, who belonged to the Company, responded to the summons of their professor-commander and hurried from the length and breadth of Canada to Valcartier and in an incredibly short time the camp was ready for the rapidly assembling battalions. When the first Canadian contingent sailed from Quebec about forty Queen's men accompanied Major Macphail to England and thence to France. The remainder of No. 5 F.C.C.E. returned to Kingston, recruited up to strength and went

into barracks. Early in 1915 a company of Engineers, almost entirely composed of Queen's students and graduates, under Captain Lindsay Malcolm and Captain Douglas Ellis, both



VERY REV. D. M. GORDON, D.D., LL.D., C.M.G.
Retiring Principal of Queen's (1912-1917)



The Kingston (Arts) Building and Grant Hall handed over to the M.H.C. as a hospital for returned soldiers, accommodating 500 patients.

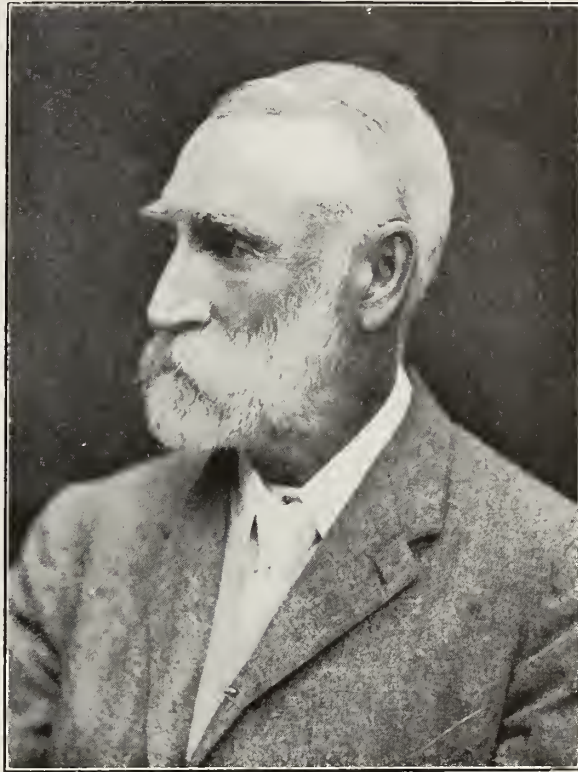
members of the Queen's staff, went overseas with the second contingent. Captain Malcolm is now Lieutenant-Colonel and C.R.E. of the 4th Canadian Division and Captain Ellis is Major Ellis, commanding officer of the No. 6 F.C.C.E., which has seen long and splendid service with the 2nd Division in France. Reinforcements of men and officers, the latter including Major W. P. Wilgar, D.S.O., another member of the Science staff, have gone almost continuously from the Depot Company, No. 5 F.C.C.E., to the Engineers overseas and other units, one of the latest being a student promoted from a road-roller on the Barriefield Camp road to a 135-mile Aeroplane of the R.N.A.S.! It should be added that almost all the original Queen's men who went over as sappers have before this secured commissions in the engineering service.

In the meanwhile the other Faculties were not idle. In the Medical College one of the first men to offer his services was Dr. Arthur E. Ross, M.P.P., a veteran of South Africa and as efficient a soldier as ever donned khaki. He was at first commanding officer of No. 1 Canadian Field Ambulance and a few Queen's men were glad of the chance to go over with him and did noble service in France. Subsequently Colonel A. E. Ross, C.M.G., was made A.D.M.S. of the First Canadian Division, a post he has held with great distinction and efficiency. Thirty medical men, of whom some twenty were graduates, responded to a call from the Duchess of Connaught's Canadian Red Cross Hospital at Cliveden, England, for dressers and assistants of whom many later found their way into the R.A.M.C. and saw service in many fields. But the great contribution the Medical College was to make was the No. 5 Canadian Stationary Hospital (Queen's) which was authorized early in 1915 and soon recruited to strength with an establishment of, at first, only 200 beds. After a brief sojourn at Shorncliffe the Hospital was ordered to Cairo, Egypt with 400 beds, and reinforcements of four officers and 43 men were hurried from Kingston and joined the unit before they left for Egypt. In December 1915 the Status of the Hospital was changed to that of a General Hospital (No. 7 Can. Genl. Hospital), with 1040 beds, to provide for which a second large reinforcement including 20 officers left Canada early in 1916. Then the Hospital was moved from Cairo to France where it has again been doubled in size, now having accommodation for 2,290 patients. Lieut.-Col. Frederick Etherington, C.M.G., is the efficient Commanding Officer and his Staff is composed almost exclusively of recent Queen's

graduates. Many testimonials to the efficiency of their work have reached home and Queen's has every reason to be very proud of the Hospital bearing her name overseas. Still later a second Queen's Field Ambulance, under Major R. M. Filson, has gone overseas and a Military Training Depot was established in close connection with the Medical College, sending regular drafts of reinforcements to units at the Front. Independently of all these, scores of medical graduates have secured commissions in the Canadian and Imperial Medical Services.

The response of the Arts Faculty, with which may be included the Theological College and the Faculty of Education, was none the less ready and general. An Officers' Training Corps was established at the outset and many Arts men, who had no distinctively Arts unit in which to join, took advantage of this course of training and subsequently secured commissions in infantry battalions. Several small groups enlisted with the different "Universities" companies, which were sent over as reinforcements to the Princess Patricia's Light Infantry, and these have suffered severe losses in common with that famous battalion. The authorization of a Queen's Battery, the 46th (Queen's) Battery, C.F.A., under command of Major (Professor) L. W. Gill, in the fall of 1915 gave the Arts men a distinctively Queen's unit, and it proved so popular a branch of the Service

that a second, the 50th, and a third, the 72nd, battery bearing the university's name were speedily recruited, though not entirely of Queen's men. The original Battery, subsequently divided in France, has suffered heavy casualties, and some of the most highly regarded undergraduates of Queen's have given up their lives behind its guns. The next Queen's unit, the 253rd (Queen's University Highlands) Battalion, under Lieut.-Col. P. G. C. Campbell, Professor of French and for two years in command of the Queen's C.O.T.C., unfortunately came too late to secure many Queen's men for its ranks, although the officers were largely graduates. The Battalion on reaching England was broken up and Lieut.-Col. Campbell, like the good soldier he is, reverted in rank to go overseas. The appeal of the Royal Flying Corps and the Royal Naval Air Service soon began to make itself felt and many Queen's men are now in that Service, not a few having paid the supreme sacrifice in their



DR. JAMES DOUGLAS, B.A., LL.D., NEW YORK
Chancellor of Queen's University



Gallery of Grant Hall, showing the added second floor and the method of protecting the walls and pillars.

fascinating but dangerous work. Overseas the usual promotions, transfers and changes are continually taking place, making it very difficult for the Editor of the University Military Record to keep it up to

date. At present the Record bears the names of more than eleven hundred Queen's students, graduates, alumni, and members of staff on active (overseas) service. It is characteristic of the kind of service rendered by University men that the casualties have been very heavy. Already 87 students and graduates have fallen or died while on active service, among them being many men whose names are well known to all Queen's men, and whose memories will long be honoured in her Halls. For the same reason the list of military distinctions and honours won is likewise a long one and the source of a pride that knows nothing of vanity or vain glory. It is difficult to refrain from mentioning some names and yet it would be difficult to single out any more worthy to be recorded than those of others.

At the University all this has left its indelible mark. Nominally the usual life goes on, indeed, but even the casual observer clearly sees that it is not the pulsing, vibrant life of the Queen's of 1913-14 and earlier years. The presence of an ever-increasing proportion of women students and of men students ineligible for military service has of course quite changed the aspects of things. The fact that the senior years in medicine have been retained to complete their courses and are receiving training in the C.O.T.C. gives continuity to the military activities of Queen's. But the Military Service Act finds few eligible men who are to be called out, and Queen's pays them the same tribute of honour as to those who have already gone.

But there are manifest signs of military activity of another sort on the Campus, which are another proof of the unselfish

NOTE.—Dr. James Douglas, Chancellor of Queen's University, is a philanthropist, mining-engineer, and metallurgist of world-wide repute. The son of the late Dr. James D. Douglas, of Edinburgh, he was born in Quebec, in 1837. After obtaining his degree in Arts at Queen's, he proceeded to Edinburgh for a course in Practical Science. Upon his return to Canada he occupied for a time the Chair of Professor of Chemistry at Morrin's College, Quebec.

In 1875 Dr. Douglas removed to New York where his services were widely sought by men largely interested



CAPTAINS OF VARSITY "VICTORY LOAN" CAMPAIGN.

spirit of Queen's. In the middle of the session of 1916-17, at the suggestion of the military authorities, the Arts Faculty moved bag and baggage, out of their own Kingston Building, so that it with Grant Hall might be handed over to the



REV. R. BRUCE TAYLOR, M.A., D.D.
New Principal of Queen's

Military Hospitals Commission as a hospital for returned men. A small army of workmen at once took charge and a great transformation was wrought. Grant Hall with a second storey built in across the galleries and cased in beaver-board almost lost its noble and classic identity. A splendidly equipped kitchen was built adjoining the Arts Building and in the early summer the Hospital with accommodation for about 500 patients was ready for its first cases. To-day it is a hive of busy doctors and nurses and patients and under Lieut.-Col. W. T. Conell and a capable staff is running with perfect military smoothness.

The vocational work provided by the Hospitals Commission found great assistance in the fact of the Hospital being on the University Grounds. Returned soldiers are mingling with the students in almost every building on the Campus and subjects undreamed of in a university curriculum are being taught in rooms once dedicated to very different purposes. Several of the Staff are contributing special courses in their own particular

subjects. Queen's is proud to be able to render this added service to assist the Military Hospitals Commission in their excellent work and is, as ever, ready to do her utmost to solve the problems of "after the War" as she has been to strain every nerve that victory and peace may be secured not only for Canada and Britain but for the world of men who love freedom and liberty.

Dr. Douglas is president of the Phelps-Dodge Corporation, Inc., has twice held the presidency of the American Institute of Mining Engineers, is an honorary member of the Iron and Steel Institute of Great Britain occupies a most prominent position in mining and railway circles of United States, and is a member of many learned bodies and influential clubs.

In Queen's he has at all times taken a deep interest and has only recently added a further donation of \$500,000 to his previous generous benefactions. McGill University and the Protestant Hospital for the Insane, Montreal, have also enjoyed his patronage, and the Students Administrative Council, of the University of Toronto in their special War Editions, number him among their generous supporters.—[EDITOR.]

Varsity in Mesopotamia

By JOHN KAY,
Faculty of Applied Science

I AM just moving around as usual; the heat has not been excessive so far, there's always a fine breeze blowing. The worst of the wind is, it raises the dust and the dust out here is something to reckon with; its like mist, and it burns the eyes and throat; one always feels thirsty. I think its the saltpetre which is in the soil.

At present we are in a rest camp getting a rest and refit. I hope that we stay here till August anyway and let the hot weather be over before we move. The heat out here is a killer, but up to the present has been very cool, about 120° in the shade is the highest I have heard of yet.

We do our parades in the early morning, the floors of our tents are dug three and half feet deep, and a mud wall built about three feet high round the edge, which makes quite a deep hole. They put a ceiling of mats under the canvas, which also helps to keep out the heat during the day. I must say that I don't feel the heat, *i.e.*, I don't feel oppressed in any way, my eyes are the only thing that trouble me, they get prickly at times. Our camp is not near a town or village, it is just plumped down in the desert, but beside the river of course. You can't get away from the river, its the only place we can get water in this waterless thirsty land. As you will have seen, we have practically wiped the Turk out of Mesopotamia, and we are getting it easier in consequence. Our transport is very good; the river steamers are just as good as can be got. Every steamer has a big barge lashed on each

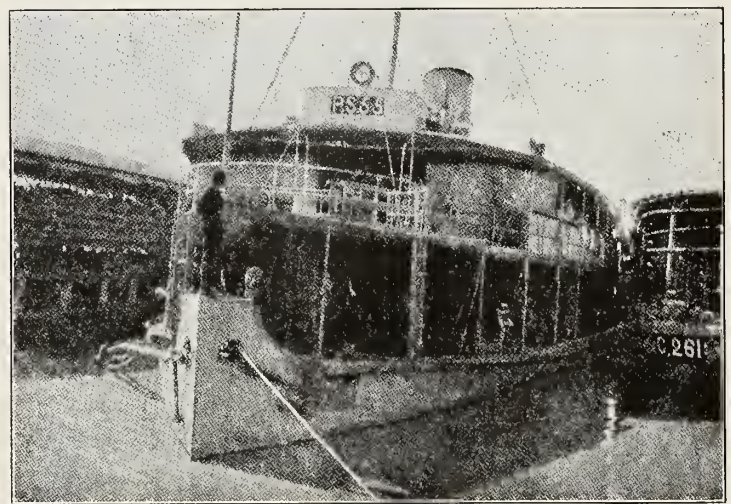
side, and they carry a good cargo each trip. Then there are the native boats with high ends, called "mahalies," they have one mast and carry a large sail. When the wind is against them they don't row, the crew get out on to the bank and tow her. I'll never forget the first time I saw them at it. The tow rope is not fastened to the bow the way we do, the rope is fixed to the deck and then run up and through a slit on the top of the mast, and you have the spectacle of four or five men towing a boat by the top of the mast. The prevailing wind here just now is from the north and consequently every "mahalies" (*i.e.*, native toat) has to be towed up stream, which is no joke. When they come to anything on the way, the rope is just pulled in and put out the oars and row past it, and then ashore again and out with the rope. The small native boats are called "balams" and are narrow, cranky-looking craft. We have all kinds of water craft here, including motor boats, etc. Our land transport is very varied: horses, mules, bullocks, camels, donkeys, and to a certain extent the railway, and I forgot to mention motor-lorries.

Our mainstay is the mule. Two of them are hitched to a two-wheeled cart and it is wonderful how they get along. Next, the bullock, indeed he is nearly as numerous as the mule in our transport. He is very reliable, slow but sure, our bullocks are fine animals, and I think they all come from India. There are a few very big ones, nearly all white.

The horses used on transport work are just ponies and come mostly from India, skittish, nasty things, they are always in trouble, running away, or in some hole or other.



A BRIDGE OVER THE RIVER AT BAGHDAD



TRANSPORT STEAMER AT AMARA



BAGHDAD UNDER THE BRITISH

But they, like the mules and bullocks, are fine animals, not big—but good. The donkey is a native of the country, and does an immense amount of hard dirty work. He is used by the natives to plough and carry burdens, you would wonder at times how the little creatures survive.

About the towns the donkey is used for almost everything. The British Government is very strong on sanitation out here and keeps the streets and walks very clean. The donkey is the dustman's cart. A six bushel bag is sewn up at both ends and split up one side and slung across the donkey's back, the ends are filled up and away they go to the refuse heap. It is mostly an arab boy with a big stick who goes with each donkey to keep it awake. The native cattle are very poor creatures, just skeletons. The native sheep are better, mostly brown in colour, (white are the exceptions) and long legged. The shepherd here leads his flock—he walks ahead and they follow.

There are a breed of native cattle here, at least further south called "bush cattle," they are black with grey hair scattered over them. They are huge unwieldy-looking creatures, about the size of an ordinary horse. The cows give very little milk, and

the bulls: what a size they are! And their horns, you can scarcely look at them, they are so twisted and ugly.

I think they could be made fine animals for haulage purposes, they are so big and weighty. The thing which drew my attention to them was their height, and size of their bones. What coarse brutes, and they were nearly all afflicted by angleberry, great lumps hanging from their bodies. They also could be made fine beef animals, some of them were quite fat and looked all right.

That's one disadvantage of this camp, we are not near any town or village and we don't see any natives, its just desert everywhere. The only district that I saw these black cattle, was a good bit to the south of here. I don't know if

they rear them up here, I never see any.

The Government have started a farm here, they grow pumpkins, beans, pears, etc., I am going to try and get a walk through it, to see what they grow. Bullocks are used to work the ground, the men are all natives of India. They use water pumped up from the river. The ground is laid out in squares,

but I will be able to tell you all about it when I manage to get a walk through the place.



BRITISH MONITORS ON THE TIGRIS



TURKISH PRISONERS IN MESOPOTAMIA

Epitaph

BY LIEUT. ARTHUR S. BOURINOT, On Active Service
(Prisoner in Germany)

Trinity College

LYING in No Man's Land, he sleeps,
Sleeps as well as they who rest
In the gardens by the sea,
In the graveyards of the West.

Sleeping in No Man's Land, he dreams,
Dreams of those in other lands;
Friends he left with pensive lips,
Those he left with waiting hands.

Dreaming beneath a foreign sky,
Death was but he Evening Star,
Setting now to rise again,
Past the Paradisal bar.

Lying in No Man's Land, he sleeps,
Sleeps as well as they who rest
In the gardens by the sea,
In the graveyards of the West.

Announcement

While the Supplement has been going through the press, the following additional information has been received from the Editor of the Roll of Service:

Reported as being on Active Service:

Flt. Lieut. Fred Everest Banbury, University College.

Flt. S. Lieut. Cecil Brock, University College.

Gnr. Robert Douglas Davidson, Applied Science.

Lieut. Thomas Earl Greer, Victoria.

Lieut. Edward Ernest Kern, University College.

The following names should be added to the Honour Roll:

Gnr. Lloyd Ashley Banbury, University College.

Lieut. Gordon Allan Cockburn, Applied Science.

Flt. Lieut. Albert Edward Cuzner, University College.

Lieut. Murray Grant Gunn, University College.

Sergt. John Vincent Guilfoyle, University College.

2. Lieut. Peter Lyddel McGavin, Applied Science.

Lieut.-Col. John McCrae, Medicine.

Pte. John Dewar McMurrich, Trinity.

2. Lieut. Gordon L. Roberts Parrish, Victoria.

The Editor regrets that through a clerical error the photograph of Lieut. Hubert Brewer Galpin, appears in the Honour Roll. Lieut. Galpin was reported as wounded and the name was inadvertently transferred to the list of killed.

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Here you will find the names of the firms whose generous patronage made this publication possible.

QUALITY PRODUCTS AND QUALITY MEN

WHEN the farmers complained to Uncle Sam that their wire fences were rusting, and what could he do about it, they surely started something. Fact is, he had been too busy reckoning up the steel he was pouring, hadn't noticed that the stuff didn't weather well—guessed they were right, and anyhow, he'd 'tend to it.

And 'tend to it he did. In due time the results of his investigation were printed under the title, "The Corrosion of Fence Wire." The rusting, as clearly shown in Bulletin No. 239 of the Department of Agriculture, was due to the presence and irregular distribution of impurities, particularly manganese.



Coming Americans though born in Eastern Europe.



Armco Foreign Club showing surrounding grounds.

Just how those impurities were responsible for chemical unrest in the texture of steel is of technical rather than romantic value. Just how they set up millions of tiny batteries—comparable on an infinitesimal scale to that gallant battery set up on a lady's thimble, whereby a message was once conveyed across the Atlantic—is of minor account. The significant fact is that confirmation as to the causes of iron rust was conveyed to a research chemist in Middletown, Ohio. For months he had been striving to produce in a twenty-five ton open-hearth furnace a genuinely rust-resistant metal. The way now clearly pointed toward an iron freed from all



Any Armco man may apply for a quarter-acre garden and get it free of charge.



Hungarians and Slovaks in their gardens, beating the high cost of living.



John Down's Prize winning garden.

The iron in these relics, quite by accident, had been of exceptional purity. By that very token what a rousing opportunity for this new commercial iron!

The business grew — from a corporation employing in 1901 a few hundred men and selling \$280,000 worth of metal, to a national institution engaging the activities of over 5,000 men and selling in 1916 products valued at \$13,200,000. The story of this rise to power is a romance in itself. But of the two great products of the American Rolling Mill, Armco Iron, strangely

impurities, an iron such as the world had never known. Neither money nor effort was spared in the quest. The result was Armco Iron, and a new and patented commercial process adjudged by eminent iron masters to be as important to industry and as revolutionary as the far-famed Bessemer process itself.

This discovery gave tremendous impetus to a rapidly-growing industry which had come to Middletown in 1901, four years before. Early it became apparent that the properties of this new iron were even more remarkable than its sponsors had at first supposed. Curious examples of the longevity of iron were called to mind: the Iron Pillar of Delhi, standing these twenty-eight centuries; the wrought iron nails in the quaint old "Wayside Inn" at Sudbury, Mass., still tough and sound after 230 years of service (while their modern successors, the wire nails, had failed in about fifteen); the iron band attached to the bronze cannon captured at Ticonderoga, still as defiant as in 1777, and this in spite of wind and weather.



An Armco Field. The ample playground maintained by the company.



Home of Steve Toth—a loyal American.



A model silo of Armco Iron on Hillcrest Farm.



Train of Armco Iron Cars for Interplant use.

enough, is the lesser. The important product is—men. The American Rolling Mill Company fully endorses the words of Miss Ida M. Tarbell, writing of "The New Industrial Philosophy" in the American Magazine: "Nothing is so valuable economically as the man."

First of all, therefore, the American Rolling Mill sees to it that a man is thoroughly protected at his work. Every type of safety device which can possibly aid in preventing accidents is maintained. Special safety instruction is regularly given, and a well-equipped hospital is ready at all times for the victims of such accidents as still occur.

Next, it sees to it that he is properly housed, and insofar as possible that his home conditions are harmonious. For whatever contributes to the health and sobriety and contentment of the Armco man, be he laborer or salaried worker, contributes directly to the man's economic value.

In the last few years the American Rolling Mill has grown faster than Middletown—by several hundred houses. This has necessitated independent measures which are working out so successfully that in every direction they are being rapidly extended.

Coming to the Armco organization from excellent homes are many young men who must be afforded thoroughly congenial surroundings if they are to develop safely and rapidly. To fulfil this mission the Company has built a "Bachelors' Club", a big fraternity house, with rooms for twenty-six, very shortly for fifty, and another year when the quadrangle is completed, probably a hundred. A comfortable big living room, an excellent table, cosy rooms, shower baths, everything has been contrived for the contentment of those who are

privileged to live here. Total abstinence is a condition of membership.

For many of its foreigners the Company has built or purchased near its Central Works, little cottages or bungalows, perhaps all told a hundred. This permits of a low rent, and also of house inspection.

Over at "East Works" the colored men have their club; five clean light and airy dormitories, metal lined, each accommodating about a hundred men.

Evening classes are maintained for the foreign-born workers and others who are eager to learn. Social clubs and athletic teams are actively promoted. The Armco Spirit is the watchword of this gathering of five thousand men of a dozen nationalities.

Safety — then contentment — then teamwork. Whatever makes for the banding together of men in the spirit of mutual helpfulness receives from "Armco" all possible encouragement. Whatever friendly rivalry is stimulated by the offering of cups and prizes and medals.

The Armco Spirit is not philanthropy, for it means just a square deal, vividly conceived and faithfully executed. It is not even generosity, in the sense in which that word is commonly understood, for it seeks but to give those rewards for co-operation to which each member is fairly entitled. If in its concrete application there is aught that is helpful to a neighbour, let him make free use of it. For by all the laws of human nature and deep-seated right, it is only by the mutual extension of this new attitude, this new procedure, that forth from the dwindling melting pot will come that loyal, contented army for the common good so vital to the carrying forward of modern industry.



Group of foreigners in English Class at Foreign Club.



Train of Ingot Molds at Middletown Plant.

Brunner, Mond Canada, Limited

IT has been the dream of far sighted Canadians that, ultimately, the Dominion would produce within her own boundaries everything essential to her economic life, and each year, as an increasing number of her resources are developed, we approach nearer the realization of that vision. The completion in the near future of the plant of Brunner, Mond Canada, Limited, now under rapid construction at Amherstburg, Ontario, will be a new and very important step in this direction, and a new industry will appear in Canada's commercial life—the manufacture of Alkali.

The significance of this statement is not generally appreciated as but few people realize the importance of this product, but it is said that Alkali in one form or another ranks second only to Pig Iron in the number and extent of its uses and its importance in our every day life.

Alkali in its commonest form, known generally as Soda Ash, enters as an essential ingredient in the manufacture of glass, soap, drugs, caustic soda, sal soda, and the bi-carbonate of soda and washing powders, used so generally in the household, and enters very largely into the processes of the preparation of leather, textiles and paper, and is used in the purification of mineral and vegetable oil, water for steam plants, cleanser in laundries, and in some of these forms enters many times each day into the life of almost every one in the civilized world. At the present time, also, it has another use of the deepest importance for it is used as an essential ingredient in very large quantities in the manufacture of most modern high explosives now being used in the great war.

Ninety-five per cent. (95%) of the Soda Ash of the world is now manufactured under the process originated by the famous Belgian chemists, Messrs. Solvay, and which is known in their honor as the "Solvay Process". The policy of the Messrs. Solvay for the use of this process provided for the establishment of a fraternity of independent manufacturing organizations, one for each of the great countries whose consumption of Alkali warranted a home supply. For years the English firm of Brunner, Mond & Company, in addition to supplying the English requirements, furnished most of the Alkali used by Canada, the balance of her consumption coming from the United States. With Canada's increasing manufacture and her assumption of a new position in the manufacturing world, it has seemed that the time was ripe for her to manufacture this important product within her own boundaries, assuring her against interruption of the supply from other countries.

To this end, Brunner, Mond & Company has been instrumental in forming the Canadian company above mentioned, Brunner, Mond Canada, Limited, to manufacture by Canadians and in Canada the Alkali which the Dominion requires.

After mature consideration, Amherstburg, Ontario, on the Detroit River was chosen as the site of this plant. Here natural advantages of the first importance—large quantities of lime and salt (necessary ingredients in the process), a central location to permit of ready distribution throughout the Dominion, and ample transportation facilities, combined to make it a peculiarly favorable location. A tract of land of over 650 acres was secured and a plant of a capacity to supply the entire Canadian requirements is being rapidly pushed to completion. At the present time, in its construction over a thousand men are being employed, and after completion its operation will give employment to over four hundred men. In spite of the unprecedented high cost of materials, and the extraordinary difficulties of construction at the present time, raised by war conditions, the importance of furnishing Canada with her own source of supply of Alkali is considered so paramount that every sacrifice is being made to an early completion of the plant.

"The War Is Bringing a Tremendous Demand For Executive-Trained Men"

These trained business men are greatly needed now. Think then, how much greater the need will be when the War is over!

THE men who stay home and direct the industrial energies of our country to greater effort and efficiency are no less patriots than the boys at the front. True, it's the man behind the gun who will bring peace—but it's the man behind the man behind the gun that feeds him—clothes him, equips him, sustains him, pays him.

You men who head big businesses need further training to help you carry the additional burdens.

You men who head departments need a keener insight into business fundamentals to qualify you for the chairs of those ahead.

You men whose feet are still on the lower rungs of the ladder need quick, intensified business training for the executives' places now awaiting you.

Never were such opportunities open to the business man who *knows* the fundamentals of business.

Never did a man have such a chance to serve his country and himself.

Never before in the history of the world has such an opportunity existed for any man to bring out the best that is in him by self training.

How officers are trained for the business army.

Trained men will win the War. The man who follows the Alexander Hamilton Institute Course is as important a link as the man who goes to a soldiers' training camp to learn to be an officer. He increases his earning capacity by be-

coming a better leader. He develops his business mind and becomes a better executive—a better MAN.

The concentrated experience of thousands of successful men.

If you own a business, large or small—if you ever hope to own one—if you are now



helping to run some other man's business—if you have your eye on the man's desk above you—if you would be a *true* leader of men—The Modern Business Course and Service will direct your mind and energy along the sound lines that lead to certain success. It helps you avoid those pitfalls which cause business failure.

The Alexander Hamilton Institute gives you, in easily readable, convenient and compact form, for absorption in your leisure time, the practical working experience of thousands of successful business men.

How other men have Succeeded.

Over 65,000 men in all have enrolled. What the Modern Business Course and Service has done for its subscribers will probably never be known in its entirety. But daily there filter into the headquarters in New York many intensely human stories, showing how men are helped.

One day you hear of a brilliant lad of twenty-two in a big New York Bank, rising to a \$9,500 job and giving credit to the Institute for his success.

The next day a factory manager writes that the Course has just helped him save his firm \$7,000 a year and that a "fair slice" of this went to increase his salary.

Then a man in a Western concern tells how he saved the firm \$37,000 a year by

one suggestion, and what happened then to his salary. These are only typical cases.

The kind of men enrolled.

Among the 65,000 subscribers are such men as A. T. Hardin, Vice-President of the New York Central Lines; E. R. Behrend, President of the Hammermill Paper Co.; N. A. Hawkins, Manager of Sales, Ford Motor Co.; William C. D'Arcy, President of the Associated Advertising Clubs of the World; Melville W. Mix, President of the Dodge Mfg. Co.,—and scores of others equally prominent.

In the Standard Oil Co. 291 men are enrolled in the Alexander Hamilton Institute; in the U.S. Steel Corporation, 450; in the National Cash Register Co., 194; in the Pennsylvania Railroad Co. 108; in the General Electric Co., 399—and so on down the list of the biggest concerns in the world.

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Get further information.

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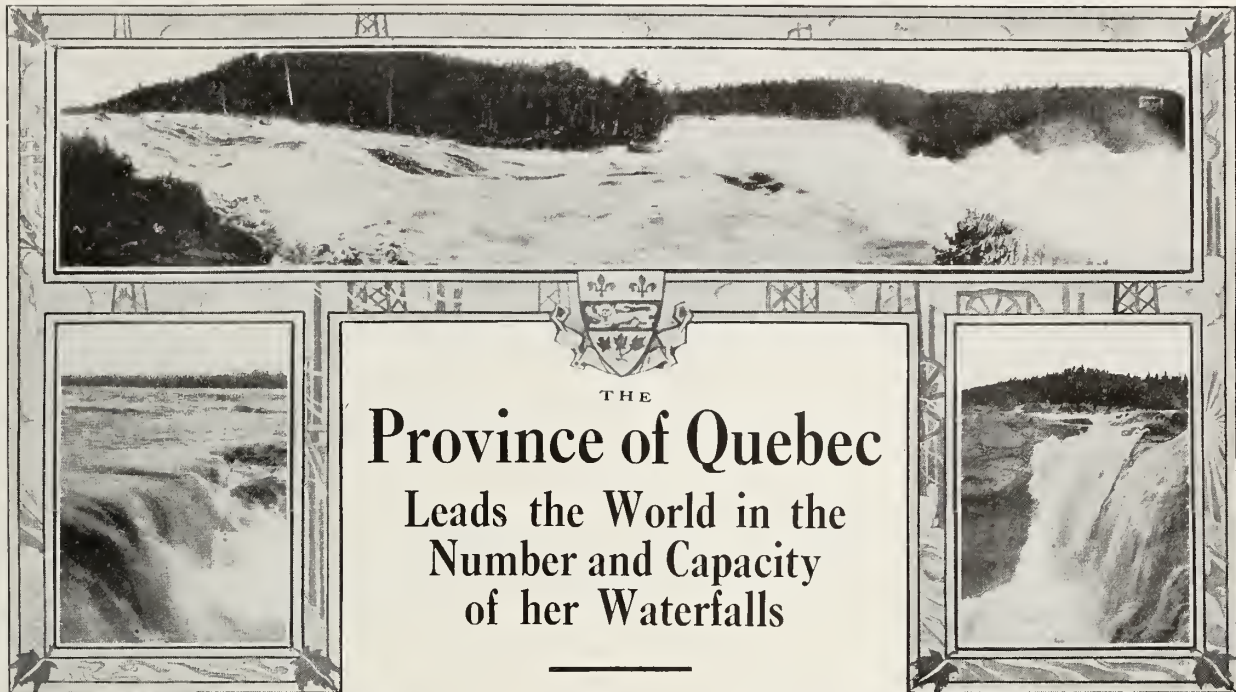


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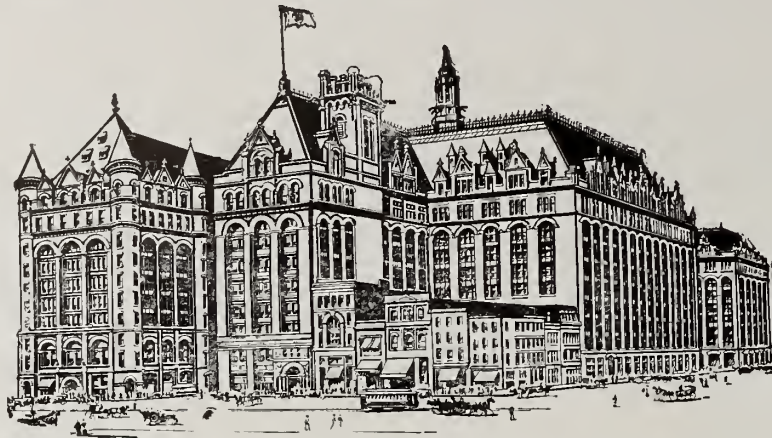


HOW TO ACQUIRE AUTHORIZATION FOR THE DEVELOPMENT OF WATER-POWERS IN THE PROVINCE OF QUEBEC

To obtain authorization for the utilization of a Water-Power in the Province of Quebec, application should be made to the Honourable Minister of Lands and Forests.

Water-Falls capable of developing less than 200 H.P. may, under certain circumstances, be bought outright. But those of over 200 H.P. are granted under emphyteutic leases, the conditions of which are upon the following lines:

1. Duration of the lease, from 25 to 99 years according to the importance of the water-power and to the amount of capital required for its development.
2. Payment of a yearly rental—which does not vary during the term of the lease—for the land granted, counting from the date when the contract is granted.
3. An additional yearly charge of from 10 to 35 cents per H.P. developed, according to the geographical situation of the site of the water-power; such charge being payable from the time the power is produced.
4. The above charge (Art. 3) is subject to revision every 21 years counting from the signing of the contract.
5. A delay of 2 years is granted for beginning works and 2 further years for producing power.
6. The lessee is under obligation to make a deposit in money, or in securities, as a guarantee of good faith in the carrying out of the contract. Such deposit may be forfeited if the conditions are not fulfilled; but it may be repaid after a certain time, in the contrary case.
7. Lastly, the grantee must submit plans of his works, mills, etc., to the Department previous to their installation, and when such installation is completed he must keep the Department informed as to the quantity of power produced.



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- (e) 1.8 per cent left from \$10,000 to \$25,000
- (f) 1.5 per cent left over \$25,000

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If you should die to-day would the money you left behind, invested at 6%, plus the income your family would receive from other sources, enable your family to live in the same style and enjoy the same comforts as now?

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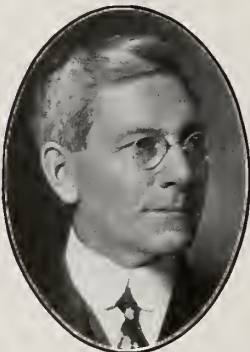
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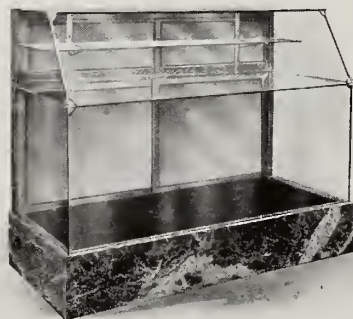
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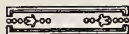
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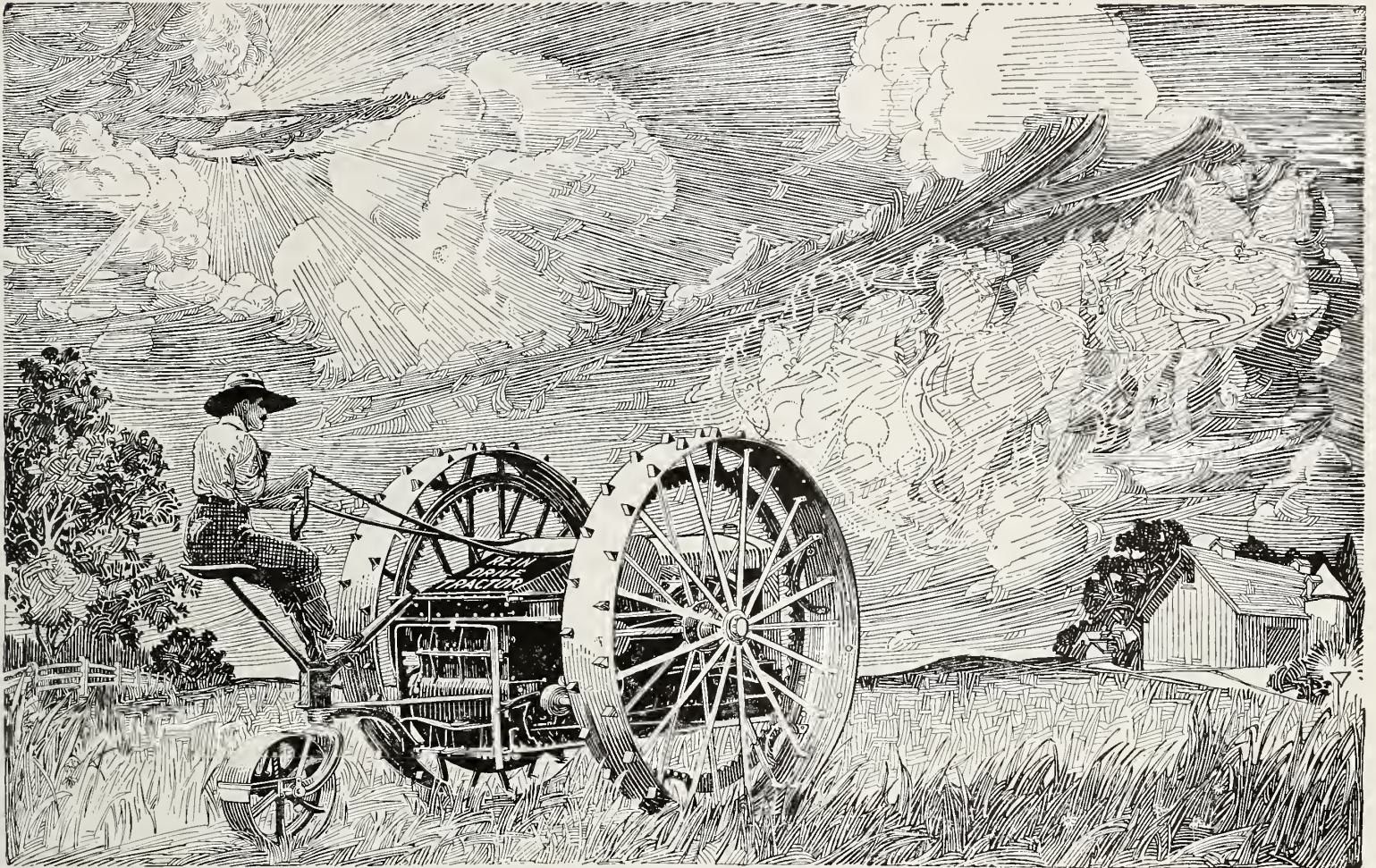
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Though I have the strength of a herd of Horses, I am guided as easily as a quiet team. I turn right or left, go backward or forward at the touch of your reins. I am the Real Iron Horse. When I am working, feed me. When I am idle I require neither food nor shelter.

No disease of foot or mouth can injure me. I suffer not from heat or cold. I wear no harness, at night turn off my spark of life and I await your coming, however long.

When you are ready to work I am at your service, to do as you direct, without fear of whip or utterance.

When the day's work is finished for you, go rest yourself—stop my heart-beats for the time, or send another man to guide me, for I am never tired.

As you are plowing set my right foot in the furrow. When I reach the end turn me as you would your team.

I am quicker than your team. I turn on six feet of land.

You and I can do the work of many men and horses.

We can do it well and with less effort.

I have a strong right arm. It is a pulley. It is at your service to pump Water, grind Feed or thrash Grain.

You will find me a strong and willing servant for many purposes.

You and I will tackle one job after another and accomplish them without disagreement.

We will make life worth living.

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We will grow more and more food to feed this hungry world.

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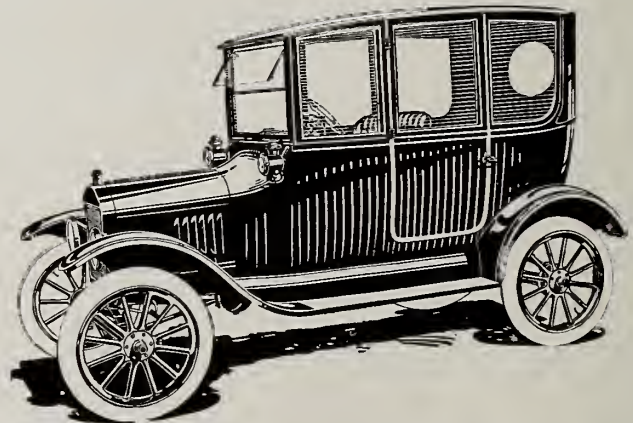
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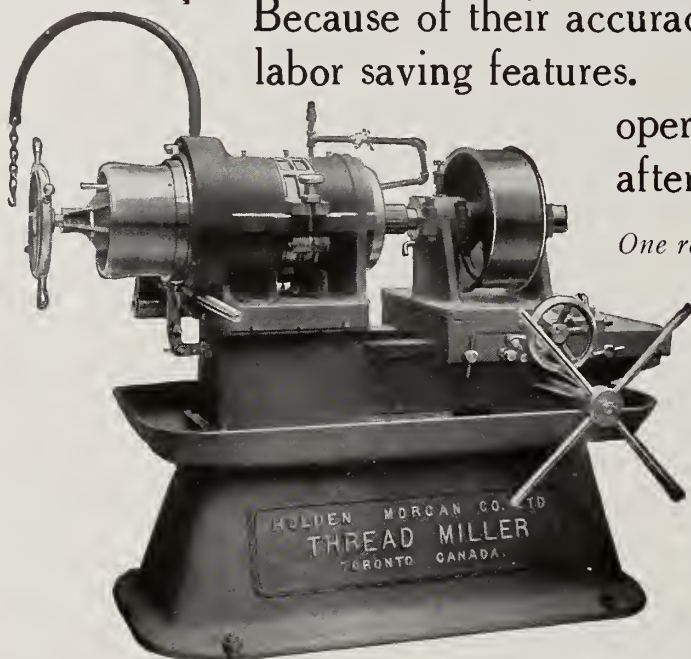


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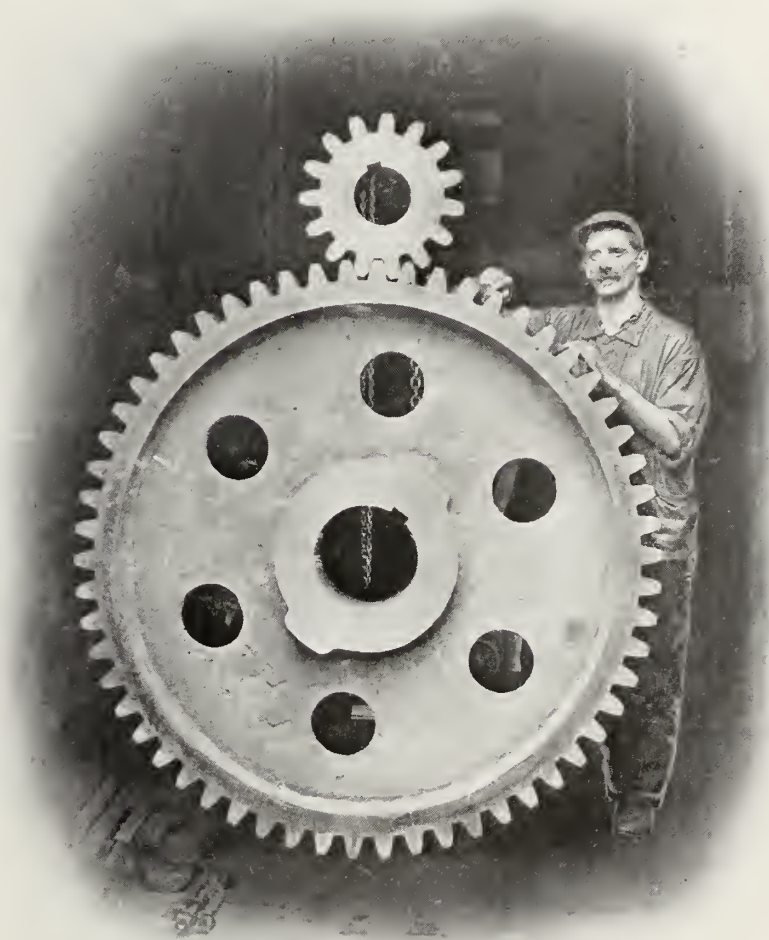
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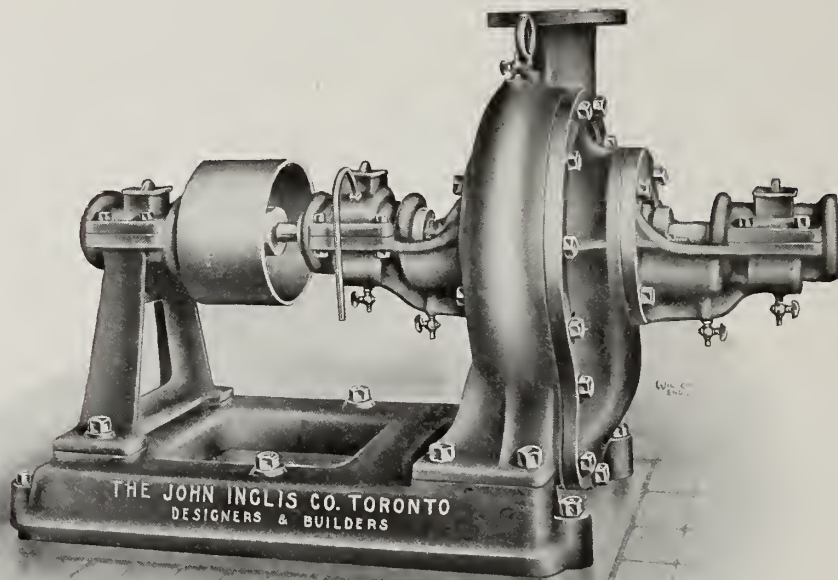
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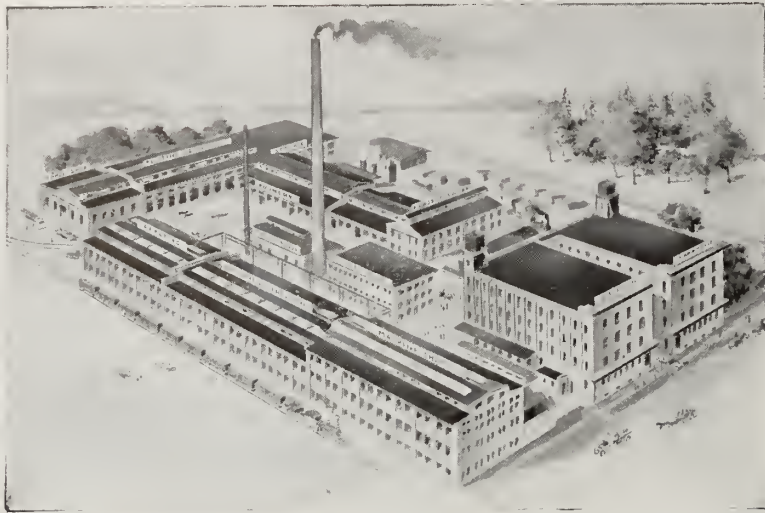
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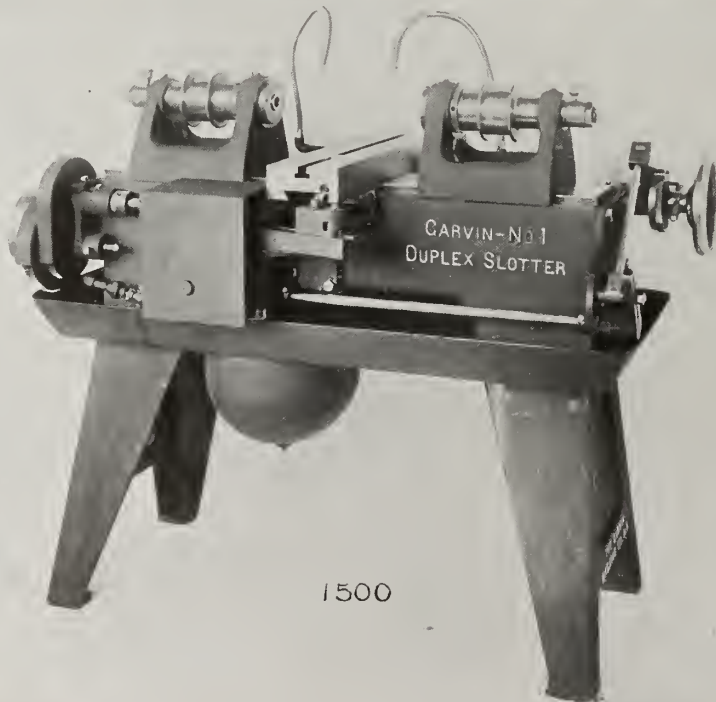
The feed by pawl and ratchet is adjustable, and can be set to automatically lift out and stop feeding when the required depth of cut is reached. This assures absolute uniformity of product without dependence on the operator. Feeding takes place at each end of the stroke.

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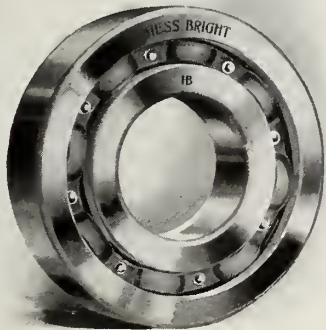
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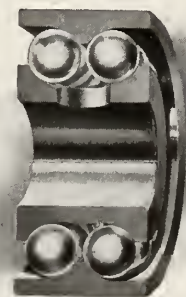
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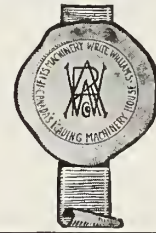
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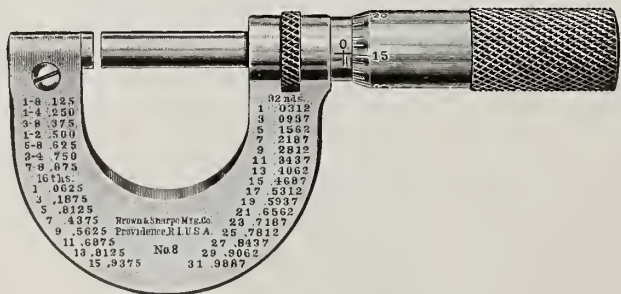
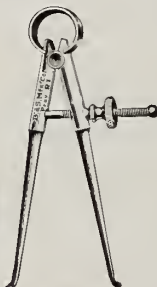
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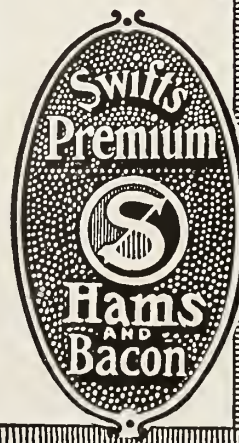
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"The Phonograph with a Soul"

This wonderful invention re-creates the voice or instrument with such complete fidelity that *the ear cannot detect an iota of difference between the interpretation of the living artist and that of the New Edison.* This is easy to say. It is easy for us to prove. And, in our famous tone tests, we *have* proved it; not once but 1500 times; not before one audience but before 1500 audiences, totalling more than two million listeners.

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(now building) opposite the Pennsylvania Railroad Terminal on Seventh Avenue between 32nd and 33rd Streets, will be operated under Statler policies throughout.

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What Pleasant Memories this name brings to Many of our Boys, who have gone to the Front in defence of our Empire. This Hotel has often been called the Meeting and Parting Place of the business and social life of Rural Ontario in Toronto.

We as Hotel-Keepers appreciate the splendid reputation our House enjoys in the homes of our great Dominion. Mothers have no hesitancy in advising their children to patronize the WALKER HOUSE and make that their stopping and meeting place, while attending the great Educational Institutions domiciled in our City.

“Home and Mother” are the sweetest words in all languages. We endeavour to provide the Home-like atmosphere in our Hotel—an atmosphere we are sorry to see departing from many of our large Hotels, especially on this continent. What a charm the word “Home” conveys to us all. We need have no fear of the future prosperity of our institution, as long as the mothers of our Dominion look upon the WALKER HOUSE for themselves and their families as their “Home from Home” while visiting Toronto.

We thank you for the patronage of yourself and friends at

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HOTEL MANHATTAN

Located in the very centre of New York, at Madison Avenue, 42nd and 43rd Streets, within one block of the Grand Central Terminal and easily reached from all other railroad and steamship lines coming into New York.

All of the principal shops now located on Fifth Avenue and Forty-second Street are within short walking distance.

The Manhattan is known all over the world, as the hotel where women traveling alone without escorts can stay in greatest comfort.

The hotel enjoys the patronage of the most exclusive people in this country and abroad. Its cuisine is justly famous and the service is of the highest order of excellence.

THE BILTMORE

Madison and Vanderbilt Avenues
43rd and 44th Streets

Is more than an hotel. - It is a home where every luxury, refinement and convenience known to modern ingenuity and invention will be found.

It covers an entire city block and is twenty-six stories high.

Adjoins Grand Central Terminal, at which all trains of the New York Central lines and New York, New Haven & Hartford Railroad arrive and depart. Private entrance direct from hotel to station and subways.

HOTEL COMMODORE

Fronting on Forty-Second Street and extending from Grand Central Terminal to Lexington Avenue is now in course of construction and will be ready for occupancy about September 1, 1917. The cost of construction and furnishing will approximate \$11,000,000.

There will be 2,000 rooms with baths. The main Ballroom or Banquet room will accommodate 3,000 persons and atop this tallest of hotel buildings will be a beautiful Roof Garden. In fact the Commodore will have all the refinements and modern improvements that have made the Biltmore so popular. The Commodore will of course have direct entrance to the station and subways. The rates will be from \$2.00 up.



The Hotels
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COMMODORE
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THE BILTMORE is America's latest, most refined and New York's centermost hotel

One thousand rooms with baths, open to outside air and sunlight

Turkish and Electric Baths with forty foot salt water plunge. - Special hours for ladies

The water used for all purposes at the Biltmore is specially softened by the wonderful Permutit System, which actually gives you rainwater to bathe in

Maid and Valet service with the compliments of the hotel. - Childrens Playroom that is a delight

Library of 2500 volumes. - A home for the family when in New York and a Club for the bachelor

IN SUMMER - Lunch in the Fountain Room far above city's heat. - Tea in the dainty open

air Italian Garden. - Dinner in The Cascades, the wonderful creation atop the Biltmore

Dancing after Dinner

IN WINTER - Skating in the Ice Gardens, Exhibitions by Professional Skaters. Thés Dansants

during the week. Supper Dances every evening after the Theatre in the New East Room

Dinner Dances every Tuesday evening in the Main Ball Room

Music