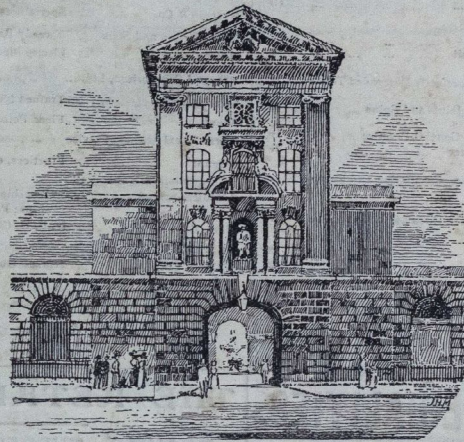


SBHMS/PB11/21
1d2

ST BARTHOLOMEW'S HOSPITAL JOURNAL



Vol. XXII—No. 4.

JANUARY, 1915.

[PRICE SIXPENCE.]

CONTENTS.

	<i>PAGE</i>		<i>PAGE</i>
Calendar	49	Chylothorax, with Notes of a Case of the Pseudo-chylous Variety. By P. Horton-Smith Hartley, C.V.O., M.D., F.R.C.P.	58
Editorial Notes	49	Rifle Club, 1914	63
Xmas, 1914	50	Examinations and Degrees	64
From the Front... ..	51	New Addresses	64
The Bombardment of Scarborough	51	Appointments	64
The Protective Ferments of the Human Body. By R. L. Mackenzie Wallis	52	Births	64
The Supply of Synthetic and other Drugs. By W. H. Hurtley, D.Sc.(Lond.)	56	Marriages	64
The Nail of the Great Grandee	57	Deaths	64
		Acknowledgments	64
		Index to Advertisements	ii

INDEX TO ADVERTISEMENTS.

Allen & Hanburys "Solurol"	xiv	Down Bros. Specialities	xiii
Arnold & Sons Portable Oxygen Generator...	viii	Evans & Witt Booksellers	ii
Ash, Sons & Co. Monarch Visible Electric Sterilizer	xii	Fellows Syrup of Hypophosphites	xiv
Dickson Examinations	v	Fairchild Bros. & Postco Panoppeum	xiii
Bongers Food	vii	Gas Light & Coke Co.	vi
Books—		Hearson & Co. Specialities	ii
Adlard & Son Clinical Journal	v	Maw, S., Son and Sons Tweedy Bag	ix
The Fundus Oculi	v	Miller Electro-Medical Apparatus	v
Dallière, Tindall & Cox—		Norwood Sanatorium, Ltd.	vii
<i>Reclus</i> Hernia, The Imperfectly Descended Testis	iv	Retreat, York Trained Nurses' Department	ii
Cassell & Co.—		Ronuk Floor Polish	xii
<i>Marsh & Watson</i> Diseases of the Joints and Spine	iv	Royal Naval Medical Service	iv
Frowde & Hodder & Stoughton—		Sargent Practices, etc.	viii
<i>Haldin Davis</i> Skin Diseases in General Practice	iv	St. Bartholomew's Hospital	
Lewis Circulating Library	iv	Medical School Fellowship Classes; Entrance Scholar-	x
Macmillan—		ships; Preliminary Scientific Department	xi
<i>Branion</i> Collected Papers on Circulation and Respi-	iv	Ditto D. P. H. Classes; Bacteriology, etc.	vi
ration	iv	St. Bartholomew's Hospital Trained Nurses' Institution	v
Murray—		Wallis & Co., Ltd. Nurses' Outfits	iii
<i>Branion</i> Therapeutics of the Circulation	iv		
Clinical Research Department	ix		
Crace-Calvert Vale of Clwyd Sanatorium	v		

HEARSON'S SPECIALITIES.

Used in all the Bacteriological Laboratories in the World, and by all Medical Officers of Health.

NOTICE.

Extensive Showrooms just opened at Factory showing every Apparatus listed.

Willow Walk, Bermondsey, S.E.
(15 minutes from Charing Cross).



NEW CATALOGUE sent on Application.



Centrifuges, Hand, Electric, and Water.

CHAS. HEARSON & Co., Ltd.

Pathological and Bacteriological Incubator Manufacturers

235, Regent Street, London, W.

THE RETREAT, YORK.

TRAINED NURSES' DEPARTMENT.

Staffed by Nurses who have been trained for four years in the Retreat, and conducted upon a profit-sharing basis. Mental and Nervous cases only undertaken.

Terms from Two to Three Guineas Weekly.

Trained MALE Nurses are also available.

Terms £2 10s. Od. Weekly.

Apply MATRON, Retreat, York. NAT. TEL. 112.

EVANS & WITT, TELEPHONE: 6722 CENTRAL.

Discount Booksellers, Stationers, Bookbinders, & Printers, 52, LONG LANE, CITY, And at 57, WEST SMITHFIELD, E.C.

A GOOD SELECTION OF DIARIES AND NOTE-BOOKS.

5 Quires Note Paper, Printed Address, 2/-.
50 Cards with Name and Address, 1/3.

Thomas Wallis & Co.
Nurses' Uniforms
and Outfits.

CLOAKS—As supplied to the Army Nursing Reserve, 29/6.

 " Plain Circular in Navy and Black Cloth, 17/9 and 19/5.

 " Full Circular Cloak with Underfronts, Hood Lined Silk, 21/6.

 " Ulster with detachable Cape, in Navy and Black Cloth, 31/6.

 " Surgical Cape in Black Cloth, lined throughout with Scarlet Flannel, from 11/6.

COSTUMES in Washing Regatta, from 16/6 complete.

 " in Zephyr, as supplied to the Army Nursing Reserve, 18/6 complete.

 " in Navy or Black all Wool Serge, or Grey Belge, from 25/6.

BONNETS—Trimmed Velvet, with Ribbon Strings, 6/6, 6/11, 7/11, and 9/6.

 " "Sister Dora" Cap, 9/6, including strings, 1/-.

APRONS, 2/2 and 2/11.

NURSES' SLEEVES, 14-inch, 1/0½ per pair.

COLLARS, 4/9 and 5/6 per doz.

CUFFS, 6/6 and 7/6 per pair.

WARD SHOES in Glacé Kid, 5/6, or Levant Leather, 6/9.

Illustrated Catalogue and Patterns Post Free.

HOSPITAL FURNITURE.

Experienced and Trustworthy Contractors for

Hospital Furnishing

OF ALL KINDS.

Contractors also for all kinds of Hospital Requisites in the way of Linen, Beds, Bedding, and Nurses' Uniforms—in these we are Specialists, with many years' experience.

Thomas Wallis & Co. Ltd.

Drapers, Outfitters, House Furnishers, etc.

HOLBORN CIRCUS, E.C.

P.H.

By Sir LAUDER DRUNTON, Bt., M.D., F.R.C.P., F.R.S., &c.

SECOND EDITION. ALMOST ENTIRELY RE-WRITTEN.

THERAPEUTICS OF THE CIRCULATION.

Small Foolscap 8vo. With 111 Illustrations. Price 5s. net.

"There can be few British medical men who are unacquainted with the author's lucid style and practical method of exposition. In this book they will find a sound and up to date account of the subject dealt with, and full descriptions of the various therapeutic measures employed in the relief of the symptoms of cardio-vascular disease. It may be cordially recommended to students and practitioners of medicine."—*The Lancet*.

"The subject is dealt with by a master-hand."—*The Practitioner*.

JOHN MURRAY, Albemarle Street, London.

COLLECTED PAPERS ON CIRCULATION & RESPIRATION.

First Series—Experimental. 8vo. 7 6 net.

MACMILLAN & CO., Ltd., London.

NEW AND ENLARGED EDITION OF

MARSH'S

Diseases of the Joints and Spine.

REVISED BY

HOWARD MARSH and GORDON WATSON
Consulting Surgeon to St. Bartholomew's Hospital. Assistant Surgeon to St. Bartholomew's Hospital.

With 4 Coloured Plates, 8 Black and White Plates, and 110 Illustrations in the Text.

CASSELL & CO.

Price 10/6.

WORKS BY
W. McADAM ECCLES, M.S., F.R.C.S., &c.

Surgeon to St. Bartholomew's Hospital, etc.

HERNIA.

THIRD EDITION. PRICE 7s. 6d. NET.

Illustrated by 121 Plates and Figures.

THE
IMPERFECTLY DESCENDED TESTIS.
EMBODYING THE JACKSONIAN PRIZE ESSAY.

Illustrated by 44 Plates. PRICE 7s. 6d.

London: BAILLIÈRE, TINDALL & COX.

Skin Diseases in General Practice.

BY

HALDIN DAVIS, F.R.C.S., M.R.C.P.

Chief Assistant in the Skin Department, St. Bartholomew's Hospital.

Published by Messrs. Henry Frowde and Hodder & Stoughton. Price 15s. net.

"A manual which should find much favour with the general practitioner."
—*The Lancet*.

Royal Naval Medical Service.

Full particulars of the Regulations for Entry as Surgeons Royal Navy, and copies of recent Examination Papers. Apply to

GIEVE'S (Gieve, Matthews & Seagroove, Ltd.).

65, South Molton Street, London, W.

H. K. LEWIS MEDICAL AND SCIENTIFIC CIRCULATING LIBRARY.

136, GOWER STREET,
& 24, GOWER PLACE,
LONDON, W.C.

One Minute from Euston Square Station
(Metropolitan Railway).

Warren Street Station (Hampstead Tube).

Close to University College
and Hospital.

Orders by Post or Telephone
promptly attended to.

Business Hours: 9 a.m. to 7 p.m.
Saturdays, Close at 1 p.m.

Telephone: MUSEUM 1072.

Telegrams:

"PUBLICAVIT, EUSROAD, LONDON."

ANNUAL
SUBSCRIPTION
from £1. 1s.

SPECIAL TERMS TO
STUDENTS.

A Quarterly List of New Books and New Editions added to the Library. Post Free.

LIBRARY READING ROOM OPEN DAILY

PUBLISHER & BOOKSELLER.

COMPLETE STOCK of TEXT-BOOKS and RECENT LITERATURE in all Branches of MEDICAL and GENERAL SCIENCE. SEND FOR PRICE LISTS.

The Library includes the widest range of subjects connected with Medicine, Surgery, and General Science.

Text-Books and all the latest works obtainable without delay.

FOUNDED IN 1892.

THE CLINICAL JOURNAL

ILLUSTRATED
WEEKLY

3^d

23 BARTHOLOMEW CLOSE, LONDON, E.C.

THE FUNDUS

Price 10/6 net.

OCULI,
A POCKET ATLAS
AND TEXT-BOOK

BY

G. LINDSAY JOHNSON, M.D.

AND

A. W. HEAD.

PRINTED AND PUBLISHED BY

ADLARD & SON, BARTHOLOMEW CLOSE, E.C.

45 Text Illustrations and 55 Coloured Pictures DRAWN FROM LIFE

ST. BARTHOLOMEW'S HOSPITAL.

CERTIFICATED NURSES

TRAINED AT THIS HOSPITAL
CAN BE HAD IMMEDIATELY.

Apply SISTER IN CHARGE.

TRAINED NURSES' INSTITUTION.

Telegraphic Address:
"RAHERE, LONDON."

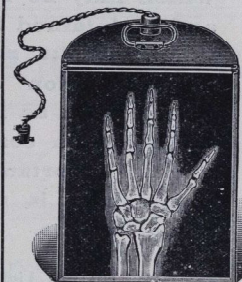
Telephone:
981 HOLBORN.

VALE OF CLWYD SANATORIUM.

This Sanatorium is established for the treatment of Phthisis, as carried out by Dr. OTTO WALTHER, of Nordrach. It is situated at a height of 450 feet above the sea, on the sheltered aspect of mountains rising to over 1800 feet, and possesses many miles of graduated uphill walks, similar to those at Nordrach. Electric lighting.

The Physician is fully conversant with Dr. WALTHER'S treatment, having been a patient at Nordrach.

For particulars apply to GEORGE A. CRACE-CALVERT, M.B., M.R.C.S., L.R.C.P., Llanbedr Hall, Ruthin, N. Wales.



L. MILLER

Manufacturer of

Electro
Medical

Apparatus.

66, HATTON GARDEN,
LONDON.

MATRICATION, Preliminary Medical, and other Examinations.—Mr. DECKTON, ScM., continues to prepare Students for the above. Extracts from testimonials:—"It seems impossible to fail under your tuition." "The greatest dullard need not despair." "I am only sorry I did not know of you earlier: no one has done so much for my son before" (1012). Boarders received. Address: 66, Torrington Square, Russell Square, W.C.

Warmth and Health.

IT is not surprising that many eminent medical men have, after careful test, declared the gas fire to be absolutely indispensable in the Sick Room or Hospital Ward. These fires are thoroughly hygienic, causing no dust, dirt, ashes nor smoke; at a moment's notice they give a generous warmth which may be regulated at will and maintained for any length of time without necessitating the least attention or causing any noises, such as inevitably attend the use of a coal fire. And—of utmost importance in the sick-room—there is no fear of accidental failure.

The Gas Light & Coke Company,
Horseferry Road,
Westminster, S.W.

A CEREAL FOOD

different from all others

because it contains the natural
digestives—Trypsin and Amylopsin.

It is used regularly in Hospitals, Sanatoria, Nursing Institutions, etc., throughout the world, and prescribed and recommended by leading physicians in practice and in many standard medical works.

The outstanding features of Benger's Food is its power of self-digestion, and milk modification, due to the two digestive principles contained in it. This occurs during its preparation with fresh new milk and is simply regulated by allowing the Food to stand from 5 to 45 minutes; it is stopped by boiling.

Benger's Food

FOR INFANTS, INVALIDS AND THE AGED.

A sample with full particulars will be sent post free to Members of the Medical Profession, on application to Sole Manufacturers.

BENGER'S FOOD, Ltd., Outer Works, MANCHESTER, Eng.

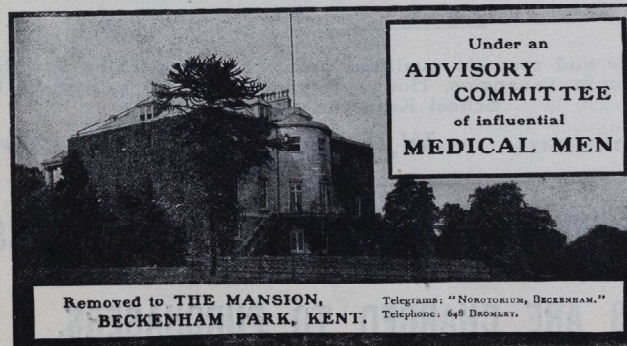
Branch Offices:—NEW YORK (U.S.A.), 92, William Street. SYDNEY (N.S.W.), 117, Pitt Street.

Canadian Agents:—National Drug and Chemical Co., Ltd., 34, St. Gabriel Street, MONTREAL, and branches throughout Canada.

NORWOOD SANATORIUM, LTD.

FOR THE TREATMENT OF

Alcoholism and other Drug Habits.



Under an
ADVISORY
COMMITTEE
of influential
MEDICAL MEN

FOR
Illustrated . . .
. . . Prospectus,
etc.,
APPLY TO
FRANCIS HARE,
M.D.,
Medical
Superintendent.

Removed to THE MANSION,
BECKENHAM PARK, KENT.

Telegrams: "NOROTORIUM, BECKENHAM."
Telephone: 648 DROSDLEY.

The "Arnold" Portable Oxygen Generator.

Patent No. 1725/12.

(See p. 1060, *Brit. Med. Journ.*, May 16th, 1914.)**A Medical Officer attached to one of the largest Shipping Combinations says:**

"I have had the pleasure of witnessing a demonstration of the 'Arnold' Oxygen Generator. I have never yet seen so simple and perfect an Apparatus in Private or Hospital Practice. With it Oxygen can be generated actually at the bedside of the Patient. It can be carried in the ordinary bag and only requires the addition of a little water to make Oxygen of an absolutely pure nature. It should command attention of all Practitioners on account of its extreme simplicity, readiness, and efficacy, thereby reducing delay and inconvenience to a minimum—matters of great moment in urgent cases. Such an appliance has hitherto to my knowledge been altogether unobtainable, and it will be a great boon to Medical Officers of Shipping Companies, the Board of Trade having granted permission for this Apparatus to be carried on all ships for Medical purposes, as Oxygen in any form was not obtainable hitherto."

PRICES.

	£	s.	d.
The "Arnold" Portable Oxygen Generator ...	3	3	0
Cartridges, hermetically sealed, for use with above—			
Small size per doz.	0	9	9
Large size "	0	15	6
Leather Cloth Covered Case can be supplied for Generator at an extra cost of	0	10	6
Glass Wool, Pure 1 oz. packet	0	1	9

Special Quotations for Quantities.

ARNOLD & SONS, GILTSPUR STREET, LONDON.

Transfer of Practices; Locum Tenencies; House Posts; Foreign Appointments, etc.

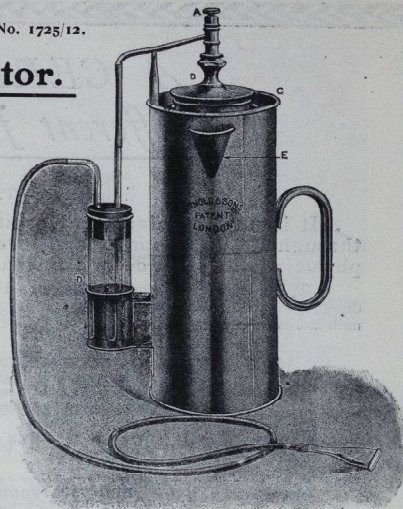
A Register of Senior and recently qualified men who are seeking Practices or Partnerships, Locum Tenencies, House Appointments, etc., is kept by the School Registrar,

Telephone: HOLBORN 1436.

W. E. Sargent, M.R.C.S., L.R.C.P.

SPECIALLY FAVOURABLE TERMS — are — **FOR VENDORS**
arranged

who are old Students of St. Bartholomew's Hospital, and

NO FEES ARE CHARGED TO PURCHASERS.

St. Bartholomew's Hospital



JOURNAL.

Vol. XXII.—No. 4.]

JANUARY 1ST, 1915.

[PRICE SIXPENCE.]

CALENDAR.

Fri., Jan.	1.—Dr. Drysdale and Mr. Rawling on duty.
Mon., "	4.—D.P.H. (Conjoint) Examination begins.
Tues., "	5.—Dr. Tooth and Mr. D'Arcy Power on duty. First Examination Conjoint Board begins. Second Examination of Society of Apothecaries begins.
Wed., "	6.—Winter Session resumes. First Examination of Society of Apothecaries begins.
Thurs., "	7.—Second Examination Conjoint Board begins.
Fri., "	8.—Dr. Garrod and Mr. Waring on duty. Cambridge Lent Term begins.
Mon., "	11.—Examination for Matriculation (London) begins.
Tues., "	12.—Dr. Calvert and Mr. McAdam Eccles on duty. Final Examination Conjoint Board (Medicine) begins.
Wed., "	13.—Clinical Lecture (Surgery). Mr. D'Arcy Power.
Thurs., "	14.—Oxford Lent Term begins. Final Examination Conjoint Board (Midwifery) begins.
Fri., "	15.—Dr. Morley Fletcher and Mr. Bailey on duty. Final Examination Conjoint Board (Surgery) begins. Clinical Lecture (Medicine). Dr. Drysdale.
Tues., "	19.—Dr. Drysdale and Mr. Rawling on duty.
Wed., "	20.—Clinical Lecture (Surgery). Mr. D'Arcy Power.
Fri., "	22.—Dr. Tooth and Mr. D'Arcy Power on duty. Clinical Lecture (Medicine). Dr. Morley Fletcher.
Tues., "	26.—Dr. Garrod and Mr. Waring on duty.
Wed., "	27.—Clinical Lecture (Surgery). Mr. Waring.
Fri., "	29.—Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine). Dr. Calvert.
Tues., Feb.	2.—Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., Feb.	3.—Clinical Lecture (Surgery). Mr. Waring.
Fri., "	5.—Dr. Drysdale and Mr. Rawling on duty. Clinical Lecture (Medicine). Dr. Hartley.

EDITORIAL NOTES.

1915. JUST a century since Napoleon fired the last shot in his locker. A hundred years have passed, and a more terrible campaign than ever Napoleon dreamed wracks Europe. Yet such is the adaptive power of man that we are already taking the new life as an ordinary event. The Hospital routine seems to us now quite normal, yet the Red Cross flies above the Hospital. Soldiers wounded by the enemy fill ward upon ward; our surgeons and physicians are dressed in khaki instead of black. There is a shortage of workers both on the junior staff and among the students, yet we feel the Hospital to be as normal, as unromantic, as conventional as if it were still January the 1st, 1914! Fortunate it is that we are so adaptable.

Well—we wish all and sundry a happy and prosperous New Year, and may the end of the year see us and ours where the end of 1815 saw our forefathers.

It will be noticed that we have given ourselves a New Year's gift. Yet once again the illustration on the cover of the JOURNAL has been changed. On the last occasion we were compelled to a somewhat rapid choice, for the old block had been worn out past repair. As a consequence, there was but little time to find out what public opinion had to say on the matter. Now, however, after considerable delay, we have obtained a drawing from the pen of Mr. J. H. Markham, A.R.I.B.A., the well-known architect, and we believe that it will meet with general approval.

We are providing with this number of the JOURNAL a Supplement containing the names and stations of those Bart's men who are serving in His Majesty's forces. The list is probably far from accurate, and we should be glad if readers will kindly correct our errors, whether of omission or commission.

We have to congratulate four members of the staff upon their promotion: Major A. E. Garrod and Major H. J.

Waring have been promoted to be lieutenant-colonels, and Captain H. S. Hartley, C.V.O., and Captain G. E. Gask to be majors.

* * *

The Bart's men on the Roll of Honour this month are: Major P. Atal, I.M.S., killed in action; Col. S. Westcott, R.A.M.C., mentioned in despatches; Capt. E. B. Lathbury, R.A.M.C., mentioned in despatches; Lt. J. E. Hepper, R.A.M.C., unofficially reported a prisoner of war.

* * *

The King George Hospital for sick and wounded soldiers, which has been equipped by the liberality of subscribers to the *Times* Fund, includes several Bart's men among its staff. Sir Dyce Duckworth and Dr. Samuel West are Consulting Physicians, Dr. Omerod is one of the physicians, and Mr. D'Arcy Power and Mr. Waring are surgeons to the hospital.

* * *

On Saturday, December 19th, their Majesties the King and Queen paid a visit to the First London General Hospital at Camberwell. Their Majesties were accompanied by Lady Bertha Dawkins, Lord Sandhurst, and Vice-Admiral Sir Colin Keppel. They arrived at 2.45 p.m., and were received by the Officer Commanding, Lieut-Col. Tooth, C.M.G., who presented the Registrar, Major Oswald, Major Rawling, and the Principal Matron. They expressed a wish to see all the wards, and so thoroughly did they carry this out that they spoke to practically every patient, exhibiting the most kindly interest in the individual cases. It was suggested to their Majesties that picture puzzles were a source of much amusement to the patients, and their Majesties, on the following day, sent a number of these puzzles to the Hospital. Their visit in every way gave the greatest satisfaction to all at the Hospital. Their Majesties left at 5 p.m.

* * *

On December 30th Queen Alexandra and Princess Victoria visited this Hospital. They were received by Mr. Acton Davis, Col. Garrod, Major McAdam Eccles, Capt. Girling Ball, the Matron, and Mr. Hayes. Her Majesty spoke with many of the wounded soldiers, who were delighted with the personal interest in their welfare taken by the distinguished visitor. Her Majesty remained at the Hospital about an hour.

* * *

It has become the custom to provide concerts for the amusement of the soldiers in the Hospital on Thursday afternoons in the Medical Out-patients' Waiting Hall. These are much appreciated by the men.

On Thursday, December 10th, the Army and Navy Concert Party, under the direction of Mrs. Burrows, provided an excellent programme. The artists included The Great Coram and Mr. Billy Merson.

On Thursday, December 17th, the Union Jack Concert

Party, under the direction of Miss Helen Mott, included Miss Cicely Courtncidge and Mr. Harrison Hill.

On Thursday, December 24th, Madame Henson, of the Royal School of Music, brought a large number of ladies and gentlemen to sing carols and glees in the wards.

* * *

On Christmas Day each of the soldiers of the Expeditionary Force in the Hospital received from their Majesties the King and Queen a card, bearing their portraits and a greeting both for their happiness and a return to good health. Queen Alexandra also sent to each of the men a box of cigarettes with a portrait of Her Majesty on the lid.

The list of friends who provided entertainment in the wards, both civil and military, on Christmas Day, included—

Coram, the ventriloquist, with a soldier dummy; Miss Helen Mott, the violoncellist, and a large party of friends; Miss Large, with a troupe of black and white pierrots, including Messrs. Rihll and Stuart Debnam; Miss Lloyd, with a troupe of red pierettes; Miss Kelly and Mrs. Apperly; Miss Thynne; Mrs. Higgins; Mr. Bellwood and student troupe; Mr. Cook and party.

On Boxing Day a concert was given in the medical out-patient room, provided by Sister Faith and her friends. About 200 patients, nurses, etc., attended. The concert was excellent.

The number of wounded that have been treated in the Hospital up to date is 546.

XMAS, 1914.

By OUR SPECIAL CORRESPONDENT AT THE REAR.

(Passed by the Censor.)



CHRISTMAS Day fell, as usual, this year on December — (date deleted by Censor). We did not expect to find the festivities at St. B— Hospital of the same vigorous nature as in past years, and it was an exceedingly pleasant surprise to us to find the swing and energy of the proceedings quite up to the normal standard. Of course, the war had inevitably altered some of the aspects of Christmas Day. For one thing, there are so many students and members of the staff away at the front that the subscriptions towards the various ward funds were in many instances lower than usual. Moreover, the war seems to have appealed more strongly to the musical student than to any other type, with the result that the usual half dozen troupes, including our old friends the — firm, and the — firm, were not in evidence, and only one representative troupe was available. This troupe, however, held the trenches in fine style, and some excellent reinforcements were introduced from the outer world, so that in all some ten sets of entertainers were kept hard at work. Indeed, the entertainments were more varied, though less noisy, than we have before known. They included con-

St. Bartholomew's and the War.

The following list of those connected with the Hospital and Medical School who are serving in the Navy, Army, and Territorial Force in the present crisis will, it is felt, be welcomed both by all old St. Bartholomew's men and by present students. Great care has been taken to make it as accurate and complete as possible, but the Editor will be glad to hear of any errors or omissions with a view to the publication of a supplementary list later.

ROLL OF HONOUR.

Killed.

Maj P. ATAL, I.M.S.
Capt R. D. O'CONNOR, R.A.M.C.
Lt. A. K. ARMSTRONG, R.A.M.C.

Lost on I.M.S. "Good Hope."
Surg. F. C. SEARLE, R.N.

Wounded.

Capt. H. S. DICKSON, R.A.M.C.
Lt. C. W. B. LITTLEJOHN, R.A.M.C.
Lt. L. R. SHORE, R.A.M.C.
Lt. F. G. L. BARNES.

Missing.

Lt. W. S. DANKS, R.A.M.C.

Prisoners of War.

Capt. A. SCOTT WILLIAMS, R.A.M.C.
Lt. S. M. HATTERSLEY, R.A.M.C.
Lt. J. G. HEPPER, R.A.M.C.

Mentioned in Despatches from Field-Marshal Sir John French.

Col. S. WESTCOTT, R.A.M.C.

Maj. M. H. G. FELL, R.A.M.C.
Maj. R. L. V. FOSTER, R.A.M.C.
Capt. E. B. LATHBURY, R.A.M.C.

Reported interned in Holland:

Surg. B. A. PLAYNE, R.N.

Reported wounded and prisoner of war:

Capt. A. A. MEADEN, R.A.M.C.
Lt. J. C. W. MACBRYAN.

ROYAL NAVAL MEDICAL SERVICE.

Fleet-Surg. H. G. ARATHOON, M.R.C.S., L.R.C.P.	Fleet-Surg. H. SPICER, M.B. Durh., M.R.C.S., L.R.C.P.	JAGO, W. J., M.R.C.S., L.R.C.P., H.M.S. "Pembroke."
Surg. D. G. ARTHUR, M.R.C.S., L.R.C.P.	Fleet-Surg. C. STRICKLAND, L.R.C.S., L.R.C.P.	LLOYD, F. G., M.R.C.S., L.R.C.P.
Staff-Surg. K. D. BELL, M.R.C.S., L.R.C.P.	Surg. R. M. THURFIELD, M.B., B.C. Cantab., M.R.C.S., L.R.C.P.	LYSTER, R. G., M.R.C.S., L.R.C.P.
Fleet-Surg. J. BOYAN, M.R.C.S., L.R.C.P.	Surg. P. B. WALLIS, M.R.C.S., L.R.C.P.	MILLER, R. W., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., H.M.S. "Victory."
Surg. E. MOXON-BROWNE, M.R.C.S., L.R.C.P.	Staff-Surg. E. S. WILKINSON, M.B., B.S. Durh.	MOORE, A. H., M.B., B.C. Cantab., D.P.H., R.C.P.S., H.M.S. "Halcyon."
Fleet-Surg. H. CLIFT, M.R.C.S., L.R.C.P.	Surg. C. WILLES, M.R.C.S., L.R.C.P.	MORRISON, J., M.D. Lond., M.R.C.S., L.R.C.P., H.M.S. "Vivid."
Fleet-Surg. F. J. DALTON, M.R.C.S., L.R.C.P.	Fleet-Surg. A. WOOLLCOMBE, M.R.C.S., L.R.C.P.	MORSON, A. C., F.R.C.S., H.M.S. "Zealandia."
Staff-Surg. W. P. DYER, M.R.C.S., L.R.C.P.	Surg. F. C. WRIGHT, M.R.C.S., L.R.C.P.	NIXON, H. C., M.D. Edin., H.M.S. "Victory."
Surg. G. E. D. ELLIS, M.R.C.S., L.R.C.P.		ONSLOW-FORD, M., M.R.C.S., L.R.C.P., H.M.S. "Victory."
Fleet-Surg. E. FULLIPI, M.R.C.S., L.R.C.P.		PAIN, B. H., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., H.M.S. "Vivid."
Surg. J. HADWES, M.B., B.S. Lond., M.R.C.S., L.R.C.P.		PLAYNE, B. A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., H.M.S. "Pembroke."
Staff-Surg. N. HARRIS, M.R.C.S., L.R.C.P.		POCOCK, W. A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P.
Staff-Surg. II. B. HILL, M.D., B.S. Lond., M.R.C.P., M.R.C.S.		ROCKMAN, R. ST. L., M.R.C.S., L.R.C.P.
Fleet-Surg. W. K. HOPKINS, M.R.C.S., L.R.C.P.		BURN, R. E. R., M.R.C.S., L.R.C.P., H.M.S. "Victory."
Staff-Surg. H. KELLOND KNIGHT, M.R.C.S., L.R.C.P.		CARPENTER, E. C., F.R.C.S., D.P.H. Cantab.
Fleet-Surg. G. M. LEVICK, M.R.C.S., L.R.C.P.		CARTE, G. W., M.B., Ch.B. Ox., M.R.C.S., L.R.C.P.
Staff-Surg. L. MORRIS, M.R.C.S., L.R.C.P.		CRIPPS, W. L., M.B., B.C. Cantab., F.R.C.S.
Fleet-Surg. R. C. MUNDAY, M.R.C.S., L.R.C.P.		CUNNINGHAM, F. H. L., M.R.C.S., L.R.C.P.
Fleet-Surg. F. H. NIMMO, M.R.C.S., L.R.C.P.		EVANS, A. G., M.B., B.C. Cantab., M.R.C.P.
Staff-Surg. J. O'HEA, M.R.C.S., L.R.C.P.		FAIRCHILD, G. C., M.R.C.S., L.R.C.P., H.M.S. "Wildfire"
Fleet-Surg. W. H. POPE, M.R.C.S., L.R.C.P.		FRANCIS, T. E., M.D., B.S., D.P.H. Lond., H.M.S. "Victory."
Fleet-Surg. W. H. POPE, M.R.C.S., L.R.C.P.		GOW, A. E., M.D., B.S. Lond., M.R.C.P., H.M.S. "Victory."
Staff-Surg. P. M. RIVAZ, M.B., B.S. Durh.		HARKE, S. L., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., H.M.S. "Vivid."
Fleet-Surg. S. ROACH, M.R.C.S., L.R.C.P.		HEALD, C. B., M.D., D.P.H. Cantab.
Surg. W. E. ROBERTS, M.R.C.S., L.R.C.P.		HODGE, W. H. S., M.R.C.S., L.R.C.P.
Surg. G. B. SCOTT, M.R.C.S., L.R.C.P.		
Fleet-Surg. H. W. B. SNEWELL, M.B., B.C. Cantab.		
Staff-Surg. W. C. B. SMITH, M.R.C.S., L.R.C.P.		

ROYAL NAVAL MEDICAL SERVICE—continued.

Temporary Surgeons—continued.

WALDO, H. C., M.R.C.S., L.R.C.P., H.M.S. "Lowestoft." WILLIAMS, A. G. M.D.Brux., M.R.C.S., L.R.C.P., H.M.S. "China". WILLIAMS, F. S., M.B., B.S.Lond. WOLFFSTAN, K., M.R.C.S., L.R.C.P., H.M.S. "Pembroke."

Temporary Staff-Surgeon, R.N.V.R.

J. K. MURPHY, M.D., M.C.Cantab., F.R.C.S.

Temporary Surgeon, R.N.V.R.

TURTON, J. R.H., M.B., B.S.Lond., F.R.C.S.

Temporary Surgeon, R.N. Air Service.

PINNOCK, D. D., M.B., B.S.Melbourne, F.R.C.S.

Surgeon Probationers for Temporary Service.

BULL, B. A. (on leave). CLARKE, R. H. CUBB, G. F. COURKIS, A. O. EBERLI, W. F. GASTERINE, J. J. GOW, C. H. GRIFFITHS, H. E. HEATH, G. E. HICKS, E. P. KINDERSLEY, C. E.

LINDEMAN, S. J. L. H.M.S. "Forester," 1st Destroyer Flotilla. MORGAN, R. G. H.M.S. "Lennox," 3rd Destroyer Flotilla. PRALL, S. R. H.M.S. "Badger." PRATT, O. B. SAVORY, C. H. SCOTT, N. A. (on leave).

Surgeon Probationers, R.N.V.R.

BUTCHER, W. H. FIDDIAN, E. A. HEYWOOD-WADDINGTON, W. B. PIDCOCK, B. H., H.M.S. "Blake."

Air Service.

Flight Sub Lt. B. CROSSLEY MEATES.

ARMY MEDICAL SERVICE.

*Surg-Gen. T. M. CORKER, K.H.D., M.D., M.Ch., O.U.I. *Surg-Gen. H. G. HATHAWAY, C.B., M.R.C.S., L.R.C.P. *Surg-Gen. W. G. BEDFORD, C.M.G., M.B.Durh., M.R.C.S., L.R.C.P. *Col. H. J. BARRATT, D.P.H., R.C.P.S., M.R.C.S., L.R.C.P. *Col. F. H. TREHERNE, F.R.C.S.Ed., D.P.H.Cantab. *Col. S. WESTCOTT, C.M.G., D.P.H.Dublin, M.R.C.S., L.R.C.S. *Removed from the Corps, but still on the Active List.

Col. Sir WILMOT P. HERRINGHAM, M.D.Oxon., F.R.C.P. (Consulting Physician with H.M. Expeditionary Force). Col. Sir ANTHONY A. BOWLEY, C.M.G., F.R.C.S. (Consulting Surgeon with H.M. Expeditionary Force).

Lt.-Col. W. N. BARRON, M.V.O., M.R.C.S., L.R.C.P. Lt.-Col. G. S. BUCHANAN, M.D. & M.D.(State Med.)Lond. Lt.-Col. A. S. WOODWARK, M.D.Lond., M.R.C.P.

ROYAL ARMY MEDICAL CORPS.

Col. F. W. C. JONES, M.B.Lond., M.R.C.S., L.R.C.S. Lt.-Col. F. W. BEGGIE, M.R.C.S., L.R.C.P. Lt.-Col. J. E. BROGDEN, L.F.P.S.Glasg., L.R.C.S., L.R.C.P. Lt.-Col. F. H. M. BURTON, M.D., M.S.Durh. Lt.-Col. J. GRIFFIN, M.R.C.S., L.R.C.P. Lt.-Col. F. W. HARDY, M.B., B.C., D.P.H. Cantab. Lt.-Col. W. E. HARDY, M.R.C.S., L.R.C.P. Lt.-Col. E. M. HASSARD, M.R.C.S., L.R.C.P. Lt.-Col. B. J. INNISS, M.R.C.S.Eng., L.R.C.P. Ed. Lt.-Col. O. R. A. JULIAN, C.M.G., D.P.H., R.C.P.S., M.R.C.S., L.R.C.P. Lt.-Col. W. H. STARR, M.R.C.S., L.R.C.P. Lt.-Col. H. E. WYNTK, M.R.C.S., L.R.C.P. Maj. J. B. ANDERSON, M.R.C.S., L.R.C.P. Maj. F. A. H. CLARKE, M.R.C.S., L.R.C.P. Maj. R. F. ELLERY, L.S.A. Maj. M. H. G. FELL, D.P.H.Lond., M.R.C.S., L.R.C.P. Maj. R. L. V. FOSTER, M.D., B.C.Cantab., M.R.C.S., L.R.C.P. Maj. S. F. SID. GREEN, M.D.Durh., M.R.C.S., L.R.C.P. Maj. F. HARVEY, D.P.H.Lond., D.T.M. & Hy.Cantab., M.R.C.S., L.R.C.P. Maj. A. H. HAYES, D.P.H.R.C.P.S., M.R.C.S., L.R.C.P. Maj. S. J. R. KILFEY, M.R.C.S., L.R.C.P. Maj. R. H. LLOYD, M.R.C.S., L.R.C.P. Maj. C. W. MAINPRISE, M.R.C.S., L.R.C.P. Maj. F. M. MANGIN, M.R.C.S., L.R.C.P. Maj. A. H. MORRIS, D.P.H.R.C.P.S., M.R.C.S., L.R.C.P. Maj. H. K. PALMER, M.R.C.S., L.R.C.P. Maj. F. G. RICHARDS, M.R.C.S., L.R.C.S. Maj. A. L. SCOTT, M.R.C.S., L.R.C.P. Maj. E. P. SEWELL, M.B., B.C., D.P.H. Cantab., M.R.C.S., L.R.C.P. Maj. A. E. SMITHSON, M.B., B.C.Cantab., D.P.H., R.C.P.S., M.R.C.S., L.R.C.P. Maj. R. STORRS, L.R.C.S., L.R.C.P.Ed.

Maj. M. SWABEY, M.R.C.S., L.R.C.P. Maj. H. S. THURSTON, M.R.C.S., L.R.C.P. Maj. R. C. WILMOT, M.R.C.S., L.R.C.P. Maj. A. O. B. WROUGHTON, M.R.C.S., L.R.C.P. Capt. J. J. H. BECKTON, M.R.C.S., L.R.C.P. Capt. B. BIGGAR, M.B., B.S.Lond., M.R.C.S., L.R.C.P. Capt. A. S. CANE, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Capt. E. G. S. CANE, M.B., B.C.Cantab., D.P.H.I., M.R.C.S., L.R.C.P. Capt. G. E. CATHCART, M.R.C.S., L.R.C.P. Capt. G. O. CHAMBERS, M.R.C.S., L.R.C.P. Capt. C. CLARKE, M.B., B.S.Lond., F.R.C.S. Capt. H. S. DICKSON, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Capt. G. H. DIVE, D.P.H.Oxon., M.R.C.P. Capt. H. GALL, M.R.C.S., L.R.C.P. Capt. M. F. GRANT, B.C., D.P.H.Cantab., M.R.C.S., L.R.C.P. Capt. J. H. GURLEY, M.R.C.S., L.R.C.P. Capt. E. B. LATHURRY, M.D.Brux., M.R.C.S., L.R.C.P. Capt. J. R. LLOYD, M.R.C.S., L.R.C.P. Capt. P. A. LOYD-JONES, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Capt. A. A. MEADEN, M.R.C.S., L.R.C.P. Capt. C. W. O'BRIEN, M.R.C.S., L.R.C.P. Capt. E. W. M. PAINE, M.R.C.S., L.R.C.P. Capt. J. A. RENSHAW, M.R.C.S., L.R.C.P. Capt. H. C. SIDGWICK, M.B.Cantab. Capt. L. V. THURSTON, M.R.C.S., L.R.C.P. Capt. L. F. TURNER, M.R.C.S., L.R.C.P. Capt. R. T. VIVIAN, M.R.C.S., L.R.C.P. Capt. L. F. K. WAV, M.R.C.S., L.R.C.P. Capt. J. M. WEDDELL, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Capt. A. S. WILLIAMS, M.R.C.S., L.R.C.P. Capt. H. T. WILSON, M.R.C.S., L.R.C.P. Capt. M. G. WINDER, M.R.C.S., L.R.C.P. Lt. E. B. ALLNUTT, M.R.C.S., L.R.C.P. Lt. D. C. BALLINGALL, M.B., B.C.Cantab., L.R.C.P. Lt. E. A. P. BROCK, M.R.C.S., L.R.C.P.

Lt. G. E. DYAS, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. S. M. HATTERSLEY, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. J. E. HEPPEL, M.R.C.S., L.R.C.P. Lt. I. R. HUDLESTON, M.R.C.S., L.R.C.P. Lt. T. E. OSMOND, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. R. B. PRICE, M.B., B.S.Lond., M.R.C.S., L.R.C.P. Lt. G. P. SELBY, M.B.Oxon., M.R.C.S., L.R.C.P. Lt. L. R. SHORE, M.R.C.S., L.R.C.P. Lt. P. A. WITB, M.R.C.S., L.R.C.P. Maj. G. N. STEPHEN, M.R.C.S., L.R.C.P., D.P.H., R.C.P.S. Maj. G. C. TAYLOR, M.D., D.P.H.Cantab. Capt. W. AMSDEN, M.R.C.S., L.R.C.P. Capt. V. HOWARD, M.R.C.S., L.R.C.P. Capt. A. H. HOGARTH, M.D., B.Ch., D.P.H. Oxon. Capt. S. E. RIGG, M.R.C.S., L.R.C.P.

TEMPORARY LIEUTENANTS IN R.A.M.C.

(For Hospitals, Field Ambulances, and Red Cross, see later).

ALMENT, E. W., M.R.C.S., L.R.C.P. APPLETON, A. B., M.R.C.S., L.R.C.P. BARNESLEY, R. E., M.R.C.S., L.R.C.P. BATES, M. M.B., B.Ch.Oxon., F.R.C.S., L.R.C.P. BELL, H. A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. BERRY, H. S., B.C.Cantab., M.R.C.S., L.R.C.P. BINNEY, C. N., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P. BLACK, P., M.R.C.S., L.R.C.P. BLACKWELL, A. S., M.D.Lond., F.R.C.S. BLAKE, T. R. H., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

ROYAL ARMY MEDICAL CORPS—continued.

TEMPORARY LIEUTENANTS IN R.A.M.C.— continued.

BONEY, T. K., M.D., B.S.Lond., M.R.C.S., L.R.C.P. BROWN, D. D., M.D.Durh., M.R.C.S., L.R.C.P. CARROLL, J., M.R.C.S., L.R.C.P. CATFORD, E., M.R.C.S., L.R.C.P. CHANDELIER, F. G., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. COPE, R., M.R.C.S., L.R.C.P., D.T.M.Liverpool. COUCHMAN, II, J., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. DANES, W. S., M.D.Lond., M.R.C.S., L.R.C.P. DAVIES, S., TREVOR, M.R.C.S., L.R.C.P. DENNIS, R. M., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. DONALDSON, M., M.B., B.C.Cantab., F.R.C.S. DOTTO, J., M.R.C.S., L.R.C.P. DOUGLAS, H. A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. DOUGLAS, S. R., M.R.C.S., L.R.C.P. DYSON, E. A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. ELLIOTT, C., M.R.C.S., L.R.C.P. FERGUSON, I. C., M.R.C.S., L.R.C.P. FIDDIAN, J. V., M.R.C.S., L.R.C.P. FOX, H. E., M.B., B.Ch.Vict., M.R.C.S., L.R.C.P. GIBSON, S. H., M.R.C.S., L.R.C.P. GLENNY, E. T., M.B., B.S.Lond., M.R.C.S., L.R.C.P. GOSSE, P. H. G., M.R.C.S., L.R.C.P. GREEN, J. L., M.R.C.S., L.R.C.P. GREGORY, C. H., M.D.Cantab., M.R.C.S., L.R.C.P. GURNEY-DIXON, S., M.B.Cantab., M.R.C.S., L.R.C.P. HADFIELD, G., M.D., B.S.Lond., M.R.C.S., L.R.C.P. HARMER, J. D., M.B., Ch.B., F.R.C.S.Ed. HARRIS, H. A., M.R.C.S., L.R.C.P. HIGGINS, A. G., M.R.C.S., L.R.C.P. HILL, F. T., M.R.C.S., L.R.C.P. HILL, W. DE M., M.R.C.S., L.R.C.P. HOUSON, R., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. INGOVILLE, J. G., M.R.C.S., L.R.C.P. JAMES, P. W., M.D.Durh., M.R.C.S., L.R.C.P. JAMESON, G. D., M.R.C.S., L.R.C.P. KEMP, J. R., M.R.C.S., L.R.C.P. KENDREW, A. J., M.B., B.S.Lond., M.R.C.S., L.R.C.P. KLEIN, B. G., M.D., B.Ch.Oxon. LITTLEJOHN, C. W. B., M.B.Oxon. LLOYD, G. W., M.B., B.S.Lond., M.R.C.S., L.R.C.P. LOUGHBOROUGH, G. T., M.R.C.S., L.R.C.P. MACBREGON, R. K., M.R.C.S., L.R.C.P. MACLAREN, N. M., B.C.Cantab., F.R.C.S. MANSFIELD, H. Y., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. MATHER, E. E., M.B.Cantab., M.R.C.S., L.R.C.P. MAWE, E. S. MICHELL, R., M.D.Cantab., F.R.C.S. MILLER, T. M., M.R.C.S., L.R.C.P. MOORE, C. G. H., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. MOSS, B. E., M.B., B.S.Lond., M.R.C.S., L.R.C.P. NASH-WORTHAM, F. L., M.R.C.S., L.R.C.P. O'CONNOR, F. W., D.T.M.&H.Cantab., F.R.C.S. OLIVER, M. W. B., M.B., B.C.Cantab., F.R.C.S. PALGRAVE, E. F., M.R.C.S., L.R.C.P. PATRICK, N. C., M.R.C.S., L.R.C.P.

PEARCE, J. E., M.R.C.S., L.R.C.P. PICKERING, H. J., L.R.C.P., L.R.C.S.Edin. PRIESTLEY, J. G., M.B., B.Ch.Oxon. ROBBINS, F. H., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. ROBERTS, J. E. H., M.B., B.S.Lond., F.R.C.S. SHERMAN, R., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. SLAIDEN, A. F. S., M.D., B.Ch.Oxon. SMERDON, E. W., M.D., Ch.B.Edin., F.R.C.S. SMYTHE, G. A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. SNOWDEN, E. N., M.D., B.S.Lond., M.R.C.S., L.R.C.P. SOAMES, R. M., M.B., B.C.Cantab. SPEAR, G. A., M.R.C.S., L.R.C.P. SPENCER-PHILLIPS, P. T., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P. STANSFIELD, R., M.R.C.S., L.R.C.P. TUCKER, S. A., M.B., B.S.Lond., D.P.H., R.C.P.S. TWIGG, G. W., M.D., B.C.Cantab., M.R.C.S., L.R.C.P. VON BRAUN, C. R. B., M.R.C.S., L.R.C.P. WALKER, A. L., M.B., Ch.B.Leeds, F.R.C.S., L.R.C.P. WALKER, L. A., M.D.Lond., M.R.C.S., L.R.C.P. WAUGH, A. J., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. WEST, J. A., M.R.C.S., L.R.C.P. WHITE, E., M.B., B.S.Lond. WHITTINGTON, G., M.B., B.S.Lond., M.R.C.S., L.R.C.P. WILCOCKS, R. W., M.R.C.S., L.R.C.P. WILLIAMS, R., L.R.C.P.I. M.R.C.S. WILLIAMSON, J. S., M.R.C.S., L.R.C.P. WILLIS, F. E. S., M.R.C.S., L.R.C.P. WILKS-BUND, H. D. H., M.R.C.S., L.R.C.P. WIPPELL, W. P., M.R.C.S., L.R.C.P. WOOD, W. B., M.D.Cantab., M.R.C.S., L.R.C.P. WOODERSON, D. H. D., M.B., B.S.Lond., M.R.C.S., L.R.C.P. WOODMAN, E. M., M.B., M.S.Lond., F.R.C.S. WORTLEY, E. D., L.S.A. YEFIS, W. P., M.R.C.S., L.R.C.P.

R.A.M.C. SPECIAL RESERVE OF OFFICERS.

Lt. H. S. BAKER, M.R.C.S., L.R.C.P. Lt. F. G. LESCHER, M.R.C.S., L.R.C.P. Lt. A. J. CLARK (on prob.), M.D., D.P.H. Cantab., M.R.C.P. Lt. E. CATFORD (on prob.), M.R.C.S., L.R.C.P. Lt. P. W. RANSOM (on prob.), M.B., B.C.Cantab. Lt. G. M. ROBERTS (on prob.), M.R.C.S., L.R.C.P.

EXPEDITIONARY FORCE.

No. 4. General Hospital. Versailles.

Lt. R. ELLIS, M.B., B.S.Lond., M.R.C.S., L.R.C.P. Lt. F. H. GUFFY, M.R.C.S., L.R.C.P. Lt. G. L. KEYNES, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. M. N. PERRIN, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. F. G. A. SMYTH, M.R.C.S., L.R.C.P.

No. 8. General Hospital.

Lt. R. BREWITT-TAYLOR, M.B., B.S.Lond. Lt. B. T. LANG, B.C.Cantab., F.R.C.S.

No. 10. General Hospital. Lt. L. L. SATOW, M.R.C.S., L.R.C.P. No. 11. General Hospital. Lt. L. C. E. MURPHY, L.R.C.P.I., L.R.C.S.I. No. 12. General Hospital. Lt. F. H. CLEVELAND, M.R.C.S., L.R.C.P. Lt. T. H. JUST, M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lt. R. M. MILLER, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

ALLIED FORCES BASE HOSPITAL. Maj. B. HUDSON, M.D.Cantab., M.R.C.P. Capt. S. B. RADLEY, M.B., B.S.Lond., F.R.C.S.

No. 10. Ambulance Train. Lt. D'ARCY POWER (Jun.), M.R.C.S., L.R.C.P.

R.A.M.C. TERRITORIAL FORCE. Capt. H. N. BURROUGHS, M.B., B.C.Cantab. Capt. L. B. CANE, M.D., B.C.Cantab., M.R.C.S. Capt. H. D. DAVIS, M.B., B.Ch.Oxon., M.R.C.P., F.R.C.S. Capt. H. K. GRIFFITH, M.B., B.C.Cantab., F.R.C.S. Capt. T. S. WOODBOYS, L.D.S., R.C.P.S. Lt. D. D. BROWN, M.D.Durh., M.R.C.S., L.R.C.P. Lt. H. V. CAPOU, L.S.A. Lt. V. HOWARD, M.R.C.S., L.R.C.P. Lt. L. E. HUGHES, M.R.C.S., L.R.C.P. Lt. H. M. PENTREATH, M.R.C.S., L.R.C.P. Lt. W. R. SALTER, M.R.C.S., L.R.C.P. Lt. C. R. WOODRUFF, I.D.S., R.C.P.S. Lt. J. F. W. WYER, M.R.C.S., L.R.C.P.

FIELD AMBULANCES. Third London (City of London) Field Ambulance, Croydonborough. Capt. R. M. VICKS, M.C.Cantab., F.R.C.S. Lt. F. H. ROBBINS, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

Fourth London (City of London) Field Ambulance. Lt. J. M. PLEWIS, M.D., B.S.Lond. Fifth London (City of London) Field Ambulance. Capt. J. E. SANDILANDS, M.D., D.P.H. Cantab., M.R.C.S., L.R.C.P.

First Northumberland Field Ambulance. Maj. J. M. GOVER, M.B., B.S.Durh., M.R.C.S., L.R.C.P. Third Northumberland Field Ambulance. Capt. A. F. PERL, M.B., B.S.Lond. First East Anglian Field Ambulance. Lt. R. ELLIS, M.B., B.S.Lond., M.R.C.S., L.R.C.P. Lt. G. C. GRAY, M.R.C.S., L.R.C.P. Second East Anglian Brigade Royal Field Ambulance. Capt. A. C. YOUNG, M.R.C.S., L.R.C.P.

INDIAN MEDICAL SERVICE.

- The Hon. Surg.-Gen. Sir PARDY LUKIS, K.C.S.I., K.H.S., M.D.Lond., F.R.C.S., Director General.
- Brevet-Col. B. G. SETON, V.H.S., L.R.C.P., M.R.C.S.
- Col. G. W. P. DENNIS, M.R.C.S., L.R.C.P.
- Col. C. J. BAMBER, M.V.O., D.P.H.Cantab., M.R.C.S., L.R.C.P.
- Col. H. HENDLEY, M.D.Durh., D.P.H.Cantab.
- Col. H. E. BANAIYALA, M.D.Brix., M.R.C.S., L.R.C.P.
- Col. P. C. H. STRICKLAND, L.R.C.P., M.R.C.S.
- Lt. Col. J. T. L. JONES, M.B.Durh., D.P.H., F.C.S.
- Lt.-Col. G. G. GIFFARD, C.S.I., M.R.C.P., M.R.C.S.
- Lt.-Col. F. P. MAYNARD, M.B.Durh., F.R.C.S., D.P.H.Cantab.
- Lt.-Col. W. B. LANE, M.R.C.S., L.R.C.P.
- Lt.-Col. F. O. KINEALY, M.R.C.S., L.R.C.P.
- Lt.-Col. R. BIRD, M.V.O., C.I.E., M.D., M.S.Lond., F.R.C.S., D.P.H.Cantab.
- Lt.-Col. R. H. ELLIOT, M.D.Lond., D.Sc. Edin., D.P.H.Cantab., F.R.C.S.
- Lt.-Col. R. K. MITTER, D.T.M.Lond., L.R.C.S., L.R.C.P.
- Lt.-Col. E. V. HUGO, M.D.Lond., F.R.C.S.
- Lt.-Col. F. E. SWINTON, M.R.C.S., L.R.C.P.
- Lt.-Col. C. E. WILLIAMS, M.B., B.C.Cantab.
- Lt.-Col. C. R. STEVENS, M.D.Lond., F.R.C.S.
- Lt.-Col. E. A. R. NEWMAN, M.D., B.C.Cantab., M.R.C.S., L.R.C.P.
- Lt.-Col. T. H. FOULKES, F.R.C.S., M.R.C.P.
- Lt.-Col. C. H. BOWLE-EVANS, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Lt. Col. W. SELBY, D.S.O., V.H.S., F.R.C.S.
- Lt.-Col. V. B. BENNETT, M.B., B.S.Lond., F.R.C.S.
- Maj. A. F. STEVENS, M.R.C.S., L.R.C.P.
- Maj. R. F. STANDAGE, M.R.C.P., M.R.C.S.
- Maj. A. W. R. COCHRANE, M.B.Lond., F.R.C.S.
- Maj. H. J. WALTON, M.D.Lond., F.R.C.S., D.T.M. & H.Cantab.
- Maj. F. A. SMITH, M.D., B.S.Lond., D.P.H.Cantab.
- Maj. W. G. RICHARDS, M.R.C.S., L.R.C.P.
- Maj. J. M. WOOLLEY, M.B.Cantab., M.R.C.S., L.R.C.P.
- Maj. J. H. HUGO, D.S.O., M.B., B.S.Lond., D.P.H.
- Maj. G. O. F. SEALY, D.S.O., M.R.C.S., L.R.C.P.
- Maj. R. F. BAIRD, M.R.C.S., L.R.C.P.
- Maj. S. HUNT, M.B.Lond., M.R.C.S., L.R.C.P.
- Maj. H. BOULTON, M.B., B.C.Cantab., D.P.H.R.C.P.S.
- Maj. H. M. CRUDDAS, M.R.C.S., L.R.C.P.
- Maj. D. H. F. COWIN, M.R.C.S., L.R.C.P.
- Maj. G. BROWSE, M.D., B.C.Cantab., M.R.C.S., L.R.C.P.
- Maj. E. A. C. MATTHEWS, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Maj. F. V. O. BEH, M.D.Lond., M.R.C.S., L.R.C.P.
- Maj. W. H. CAZALY, M.B., B.S., D.P.H.Lond., M.R.C.S., L.R.C.P.
- Maj. W. G. HAMILTON, F.R.C.S.E., D.P.H.Cantab., L.R.C.P.
- Maj. W. C. LONG, M.R.C.S., L.R.C.P.
- Maj. W. H. LEONARD, F.R.C.S., L.R.C.P.
- Maj. H. W. ILLIUS, F.R.C.S.Ed., L.R.C.P.
- Maj. J. K. S. FLEMING, M.R.C.S., L.R.C.P.
- Maj. E. C. HEPPER, D.T.M.Lond., M.R.C.S., L.R.C.P.
- Maj. A. E. J. LISTER, M.B., B.S.Lond., F.R.C.S.
- Maj. J. W. MCCOY, M.R.C.S., L.R.C.P.
- Maj. L. B. SCOTT, M.D., B.C.Cantab., D.P.H.Oxon.
- Maj. J. W. ILLIUS, F.R.C.S.Ed., L.R.C.P.
- Maj. F. P. MACKIE, M.B., Ch.B.Bristol, F.R.C.S., M.R.C.P.
- Maj. A. T. PRIDHAM, M.B.Lond., M.R.C.S., L.R.C.P.
- Maj. F. P. CONNOR, F.R.C.S., D.I.M., R.C.P.S.
- Maj. W. W. JEUDWINE, M.D., B.C.Cantab.
- Maj. H. M. H. MELHUISE, D.P.H.R.C.P.S., M.R.C.S., L.R.C.P.
- Maj. F. N. WHITE, M.D.Lond., M.R.C.S., L.R.C.P.
- Capt. J. McA., MACMILLAN, M.B., Ch.B.Ed., F.R.C.S.Eng.
- Capt. F. C. HODGSON, M.R.C.S., L.R.C.P.
- Capt. H. E. SPANER-LEATHES, M.R.C.S., L.R.C.P., D.T.M. & H.Cantab.
- Capt. A. F. HAMILTON, M.B.Lond., F.R.C.S.
- Capt. R. A. LLOYD, M.D.Lond.
- Capt. A. D. WHITE, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. N. M. WILSON, M.R.C.S., L.R.C.P.
- Capt. W. H. HAMILTON, F.R.C.S.
- Capt. H. FALK, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Capt. W. S. NEALOR, M.R.C.S., L.R.C.P.
- Capt. C. H. CROSS, M.R.C.S., L.R.C.P.
- Capt. R. H. BOTT, M.B., B.S.Lond., F.R.C.S.
- Capt. K. S. SINGH, M.R.C.S., L.R.C.P.
- Capt. H. B. SCOTT, M.R.C.S., L.R.C.P.
- Capt. R. B. S. SEWELL, M.R.C.S., L.R.C.P.
- Capt. C. H. FIELDING, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. K. N. CHOPRA, M.D.Cantab.
- Capt. M. D. WADIA, M.R.C.S., L.R.C.P.
- Capt. A. J. SYMES, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. A. M. JUKES, M.D., B.S.Lond., D.P.H.Cantab.
- Capt. H. H. KING, M.B., B.S.Lond.
- Capt. S. SARKAR, L.R.C.P., L.R.C.S.Edin.
- Capt. A. M.D. DICK, M.B., Ch.B.Edin., F.R.C.S.
- Capt. T. J. C. EVANS, M.D.Durh., F.R.C.S.
- Capt. M. J. HOLGATE, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. T. L. BOMFORD, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. G. R. IVY, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. J. MED. ECKSTEIN, M.R.C.S., L.R.C.P.
- Capt. G. T. BURKE, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. J. A. A. KERNAHAN, M.R.C.S., L.R.C.P.
- Capt. C. NEWTON-DAVIS, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Capt. R. C. CLIFFORD, M.R.C.S., L.R.C.P.
- Capt. L. H. KHAN, M.R.C.S., L.R.C.P.
- Capt. C. J. STOCKER, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Lt. F. J. ANDERSON, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Lt. J. C. JOHN, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Lt. E. CALVERT, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.
- Lt. A. C. L. O'S. BILDERBECK, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Lt. B. C. ROY, M.D.Calcutta, M.R.C.P., F.R.C.S.
- Lt. W. C. SPACHMAN, M.B., B.S.Lond., M.R.C.S., L.R.C.P.
- Lt. J. W. PIGRON, B.C.Cantab., M.R.C.S., L.R.C.P.

PRESENT AND FORMER NURSES OF ST. BARTHOLOMEW'S HOSPITAL SERVING IN CONNECTION WITH THE WAR.

TERRITORIAL RESERVE

MATRONS, SISTERS AND STAFF NURSES SERVING WITH 1ST LONDON (CITY OF LONDON) GENERAL HOSPITAL.

Principal Matron

Miss COX-DAVIES.

Matron

Miss M. ACTON.

Sisters

Miss F. M. BARKER.
Miss K. BARTING.
Miss W. BICKHAM.

Miss M. BOMPAS.
Miss E. BRAILSFORD.
Miss I. BRÖCKNER.
Miss P. DALE.
Miss M. DRURY.
Miss E. GIBERT.
Miss G. HALE.
Miss E. MACFARLANE.
Miss E. MACONACHIE.
Miss H. MACONACHIE.
Miss E. MILLER.
Miss A. NEWSHAM.
Miss M. NUTT.
Miss F. OLDFIELD.
Miss E. PRESTON.
Miss D. SHEPHERD.
Miss H. M. SMITH.
Miss G. THOMPSON.
Miss A. WHITE.

Staff Nurses

Miss A. ADAMS.
Miss L. E. ALEXANDER.
Miss C. E. ALDRIDGE.
Miss L. ANDRADE.
Miss M. G. ANGUS.
Miss A. BANNISTER.
Miss Y. BARUGH.
Miss J. COMYNS-BERKELEY.
Miss I. BOSWELL.
Miss L. BOURNER.
Miss M. E. BURDETT.
Mrs. M. CARTER.
Miss H. COLE.
Miss G. COWLIN.
Miss A. CREAK.
Miss M. CROMP.
Miss E. CRYER.

PRESENT AND FORMER NURSES OF ST. BARTHOLOMEW'S HOSPITAL SERVING IN CONNECTION WITH THE WAR—continued.

Staff Nurses—continued.

Miss M. DAVEY.
Miss A. DICKINSON.
Mrs. A. E. DICKSON.
Miss L. DOLTON.
Miss N. DUFFETT.
Miss J. DUTTON.
Miss C. FAULLER.
Miss W. FORVARQUE.
Miss F. R. GARDNER.
Miss M. H. GILSON.
Miss A. GOAD.
Miss J. C. GODDIE.
Mrs. W. F. HADFIELD.
Miss F. HARRISON.
Miss E. B. HAWLEY.
Mrs. M. HENDERSON.
Miss E. HINDLE.
Miss N. HITCH.
Miss A. HOLMES.
Miss N. HUNTER.
Miss I. LITTLEJOHN.
Miss I. MACKINTOSH.
Miss E. MACKEY.
Miss M. MOGER.
Mrs. N. MOORE.
Miss E. NORTHWOOD.
Miss L. NORTHWOOD.
Mrs. G. PARLOW.
Miss M. PEARCE.
Miss L. PERKINS.
Miss M. K. PHILLIPS.
Miss A. PRATT.
Miss D. PRIESTLEY.
Miss M. REYNOLDS.
Miss S. IRVINE-ROBERTSON.
Miss D. ROBINSON.
Miss E. SNELL.
Miss E. C. STEWART.
Miss D. STORRS.
Miss I. SYMONDS.
Miss C. TUNBRIDGE.
Miss S. TURRELL.
Miss D. WATERLOW.
Miss H. WATT.
Miss C. WHETTAM.
Miss G. WHITAKER.
Mrs. D. WHITEFOORD.
Miss N. WIGG.
Miss E. WILLOUGHBY.
Miss E. WRIGHT.

TRANSFERRED TO THE ARMY NURSING RESERVE FOR FOREIGN SERVICE FROM 1ST LONDON GENERAL HOSPITAL

Sisters

Miss M. COCKSHOTT.
Miss T. HAVES.
Miss K. LOWE.

Staff Nurses

Miss M. ATKINS.
Miss C. ELWELL.
Miss D. FOSTER.
Miss A. HILL.
Miss D. HUTTON.
Miss Z. JONES.

Queen Alexandra's Royal Naval Nursing Service Reserve.

Miss LEWIN.
Miss MINEL.
Miss F. NICHOLSON.
Miss SPOONER.
Miss STRONGE.
Miss E. G. THOMPSON.
Miss A. TURNER.

Queen Alexandra's Imperial Military Nursing Service Reserve.

Serving at various home stations:

Miss CROWN.
Miss GASCOIGNE.
Miss L. HILL.
Miss G. KING.
Miss MACCORMAC.

Serving abroad:

Miss APPLETON.
Miss BINLIANS.
Miss BOND.
Miss S. BRAILSFORD.
Miss BRAKFIELD.
Miss N. CONSTABLE.
Miss CUMBERBATCH.
Miss A. M. DAVIS.
Miss M. M. DAVIS.
Miss DAWSON.
Miss DEY.
Miss DUNCUM.
Miss E. EVANS.
Miss M. A. FLEICHER.

Miss HANSARD.
Miss S. JARVIS.
Miss A. M. JONES.
Miss M. A. JONES.
Miss C. E. JONES.
Miss LARDNER.
Miss LATHAM.
Miss LLOYD EDWARDS.
Miss LONSDALE.
Miss MARSH.
Miss E. M. MARTIN.
Miss MILES.
Miss NOEL.
Miss O'CONNOR.
Miss M. PALMERON.
Miss STEPHENSON JELLIE.
Miss STONES.
Miss TAYLOR.
Miss M. THOMPSON.
Miss THURLLOW PRIOR.
Miss TICE.
Miss TILNEY.
Miss WATERMAN.
Miss WITHERS.

Duchess of Westminster Hospital, Le Touquet, France.

Matron: Mrs. LLEWELLYN PHILLIPS, formerly Matron of the Kas-el-Aini Hospital, Cairo.

Sisters and Nurses: Miss C. O. CAVE (Matron in charge of Convalescent Hospital, Highgate), Miss E. G. CLOWE (Sister Casualty), Miss F. R. KILNER, Miss G. VINCENT, Miss A. M. BAILEY, Miss K. A. HALLETT.

St. John Ambulance.

Miss FARLEY, returned from Brussels and gone to Boulogne.
Miss CUTLER, returned from Brussels.
Miss WILKINSON, returned from Brussels.

Thirty-fourth Essex Emergency Red Cross Hospital.

Matron: Mrs. T. G. WARRLING.

VOLUNTARY AID DETACHMENTS.

Sussex (92).

Lady Superintendent: Mrs. WALTER.

EMPLOYEES OF ST. BARTHOLOMEW'S HOSPITAL AND MEDICAL SCHOOL SERVING IN CONNECTION WITH THE WAR.

C. M. POWER, Clerk's Office.
G. FRENCH, late Registrar's Clerk.
S. PAYNE, Messenger.
W. EVANS, Box Carrier.
H. WARE, Sterilising Room.
T. CHAMBERS.
V. BODEN.
A. MASON.
E. BAITES.

W. SAVAGE.
S. HORNE.
J. O'HALLORAN.
H. LEWIS.
A. GORDON.
J. H. RILEY.
H. BELTON.
F. WALSH.
W. MACKAY.

B. PHILLIPS.
B. OLIVER.
A. PARLOW.
T. SEAGER, Kitchen Lift Attendant.
EDWARD GRIFFITHS, Pathological Lab.
ALFRED CRAMP, Pathological Lab.
D. KEATING, Chemical Laboratory.

juring, ventriloquism, 'cello and violin solos, and some particularly fine singing.

The decorations were excellent, but there was not the profusion of colour we have sometimes seen in one or two of the wards. On the other hand, some of the wards were as brilliantly schemed as ever. The fact was that with smaller funds more attention had to be devoted to presents, and it is said that in many of the wards these surpassed all previous records.

It is hardly fair, therefore, to mention any particular ward by name, because luck rather than enthusiasm has this year ruled the order of merit, and we must rest content with the kind of statement which is nowadays expected to satisfy our thirst for news. The — ward, strung with a thousand paper flags (from which the C — flag had been removed for firelighting purposes), was only surpassed in grandeur by the — ward, a study in crimson and —, and by the — of — which —.

Father Christmas appeared during the day in three different disguises, each one better than the other, and the casualties during their visits — — — — —. (Deleted by censor.)

The great topic of conversation during the ward dinner, when the usual roast t — y and p — m pudding were in evidence, was, Lenhartz diet; the question being whether the terrific hunger and longing would not produce a more copious flow in the g — c organs of the poor sufferers from stomach trouble than would a surfeit of food. Experiment seemed to show a balance in favour of — — — — —. (Deleted by censor.)

We need scarcely add how greatly every member of the Hospital appreciates the services of those outside friends who so kindly came to entertain the patients. They were worked very hard indeed, but we feel sure that the enthusiasm with which their performances were greeted must have compensated them in some measure.

Generally speaking, everyone seemed rather more cheerful than is usual upon Christmas Day, and the sisters, nurses, staff, and students, whose work contributed to the success of the day, are to be heartily congratulated.

FROM THE FRONT.

YPRES, BELGIUM;
27th October, 1914.

HEAR A —, Just a line to let you know that I am still alive and kicking. After being at Haslar till September 30th, I got sudden orders to join the Royal Naval Flying Corps at Sheerness. On arrival there I was ordered to join the *Empress* and proceed to Dunkirk. There I was attached to the armoured car section under Commander Sampson (a regular Captain Kettle in size, appearance, and pluck). He has just received the D.S.O.

and the Legion of Honour. We proceeded by car to Antwerp and I was right through the bombardment. With the Naval Brigade I was in the trenches in front of Antwerp (in front of the middle ring of forts). On the second day there I received my baptism of fire—shrapnel. During the night one of our officers got shot by mistake, and I took him into Antwerp in the early morning to the hospital. There Soutar and I removed 9 ft. of his small intestine. Next day, when I got back, we had retreated to just within the ring of forts, and had made a temporary hospital in a lonely chateau. That night (Wednesday) they commenced to shell the city. All night "Jack Johnsons" passed over our heads with their deadly whistle—one shook our roof and made us clear out to the garden, there we dug trenches, and were no sooner in these than shrapnel burst over us, covering two St. John's men in each. Early on Thursday morning we got orders to retire and made for the city gates. Shells were still dropping into the city and many houses were on fire. We got through the city safely and reached the quay. The oil tanks had been set on fire on our side by the Belgians and the flames rose to a great height. We crossed the pontoon bridge that evening and retreated all along the Dutch frontier, and took train at St. Gille for Blankenberg. About 1600 marines were interned in Holland and one of our trains was also done in by the Germans—my doctor pal, Greig, was captured. One day at Blankenberg and then on to Ostend. Two days there and then a move south to Tourout one day, Roulers one day, Ypres one day, and then to Poperinge, where we stayed a week. We are now back in Ypres, where a fierce battle is raging. Our work after Ostend was Uhlans hunting and we managed to kill or capture about five a day. They are scared to death of us and fly at once or else surrender. The other day I went with Sampson two miles beyond our own outposts, right into the German patrol area. As we emerged from a row of houses I spotted three Germans running across a field at 400 yards. Our maxims rattled out at once and then we fired our 3-pounder (for a motor enemy) into a house at 600 yards, where we thought they were. After half an hour's wait we got back to our lines in safety. My job is certainly the "Star Turn" among the doctors' jobs. I see all the fun; so far very little medical work to do, our only casualties being two marines shot dead by a sniper. It is certainly very risky work, much more exciting than getting three no trumps on a bad hand. They will lay a trap for us some day and we'll all get done in. Yesterday I was on the main road watching the battle when a bullet came along, two yards from my head, and struck the waggon at which I was standing; I picked it up—quite warm—and have it as a souvenir. German prisoners arrive in the Square every day. Two days ago I saw 350 marched in. Just as we were leaving the main road yesterday I saw a ghastly sight: one of our aeroplanes was circling over our lines, showing coloured lights at intervals to direct our

artillery fire, when suddenly it was fired on by some English soldiers about two miles from us. The whole machine went into a ball of fire and commenced to slowly descend; about quarter way down (some 1500 ft.) one of the pilots fell out. Two of our aviators went up and found both bodies horribly burnt and riddled with bullets. What a ghastly mistake, as it was obviously our own machine, with the Union Jack quite visible on the planes. How are things going on at home? I have received no news since October 7th. Can you write me a long letter and give me all the news? Would you mind sending me a box of 50 "Passing Cloud" Virginia cigarettes, and I will square up with you when I get back. My address is—"Surgeon ———, R.N., Royal Naval Air Service, British Naval and Marine Expeditionary Forces, c/o G.P.O., London." Tell me how things are going in London—any medical news of interest, etc. You cannot imagine what a godsend letters are to me. Have you heard from Boney? Is Watson off yet? Any Hospital news? Would you mind sending me another letter in case the first is lost?

Give my kind regards to all your people and to all mutual friends.

I will write you again when more news crops up.

Yours,

THE BOMBARDMENT OF SCARBOROUGH.

DECEMBER 16th, 1914, will be a day long remembered here. Awakened at 8 a.m. by several loud reports, a terrific explosion in the roof of my house, and one realised it was not thunder.

A hurried rush to the cellars in dressing gowns or less, and there we stayed palpitating with funk. How long was it going on, and was the whole place to be blown to bits?

All the time explosions and the crash of struck buildings. After fifteen minutes a sudden peace; hurried dressing, and then more shells and more noise as the ships turned round to give us some more with their other broadside.

Another fifteen minutes, and again sudden peace and a wonderful relief; they had gone to warm up Whitby and Hartlepool.

Outside a stream of half-dressed women and children had rushed to a neighbouring village, and carts of every description were taking off refugees.

In places the streets were littered with bricks and bits of shell. My roof was off, and one of the top rooms did not look its best.

A frantic father took me off to see his two year old son, an only child, with a piece of shrapnel in his brain, and his nurse half blown to pieces. She had taken the child upstairs to see the firing, not knowing it was anything serious, and a shell had exploded in the room.

Two doors away a man with a leg and arm shattered, and he died in half an hour.

The ambulance men and boy scouts were splendid, and the women of Scarborough beyond all praise.

At the Hospital, which was twice hit, there was no panic, though many of the townspeople had rushed there for shelter.

The nurses had carried all the patients to safer corridors and were at their best.

Many cases arrived for the next two hours, and the morning was busy removing shrapnel, clearing up lacerated limbs, and setting broken legs and arms.

A boy with a piece of shrapnel in his brain, who did well after trephining freely; a woman with a piece of shrapnel in the popliteal space, dividing both vessels and breaking the bone, and later necessitating amputation for gangrene; shrapnel wounds in the abdomen with extension of omentum and perforation of the stomach; and many other minor injuries.

A piece of shrapnel was removed from a woman's liver a few days ago, where it had formed an abscess with remarkably few symptoms. Several limbs have been removed since owing to the extensive necrosis which shrapnel seems to cause.

Most of the people killed were those who ran into the streets or those in small houses into which a shell exploded.

The tip seems to be to get into the cellars or basement rooms quick and stay there.

More bromides have been prescribed in Scarborough this last week than in a normal year.

Most people found that their digestion had gone wrong, and if a door bangs nowadays we all leap into the air and rush for the cellar.

There are three other Bart.'s men here, Dr. Everley Taylor (a contemporary of our Baron), Dr. Giles (who was having a much less exciting time in France), and Dr. Maingay.

At the present moment Scarborough is not a remunerative place for doctors—most of our patients are trying a rest cure in Harrogate.

W. B. GRIFFIN.

THE PROTECTIVE FERMENTS OF THE HUMAN BODY.*

By R. L. MACKENZIE WALLIS,
Demonstrator of Chemical Pathology, St. Bartholomew's
Hospital, London; Gillson Research Scholar in
Pathology, Society of Apothecaries,
London.

THE subject I have selected for discussion to-night opens up a wide field, so wide in fact as to render it impossible to deal adequately with any one

* Paper read before the Abernethian Society, November 12th, 1914.

phase of the problem in the time allotted I propose, therefore, to confine my attention to the production of the so-called "protective ferments" and their influence on the processes of immunity and metabolism. The evolution of this idea of a definite chemical mechanism of defence is due to the extensive investigations of Abderhalden and his collaborators spread out over a number of years. My object, therefore, is to first of all endeavour to prove that such ferments do exist and then to demonstrate their specificity. The whole subject would appear to be of paramount importance in the elucidation of some of the many problems of immunity which still await solution, more particularly as it embodies the application of the principles of immunity to the body cells themselves. Not only do we endeavour by this means to ascertain the chemical changes which each individual cell or groups of cells undergo, but we hope also to correlate structure with function much more closely than has hitherto been the case. We have many examples in the human body of such a character, and reference need only be made to the liver cells, which produce bile, or the cells in the medulla of the supra-renal bodies, which elaborate the active principle adrenalin. Each cell has its own part to play in the economy of the organism, and possesses its own special structure, chemical composition, and functions. Consequently we should expect to find that the body cells only take up substances from the blood-stream which are necessary for their own particular function. The appearance of any foreign substance or foreign cell in the blood stream would be of no use to the cells as such, unless previously destroyed by some active chemical agent. In order, therefore, to remove these bodies special ferments are elaborated, and upon this change the principles of the Abderhalden tests for diagnostic purposes are based. In order to comprehend more fully such chemical changes which these specific ferments induce we must turn our attention to the more minute processes of protein "digestion," which can be followed in the gastro-intestinal tract, and also in experiments *in vitro*. The pepsin in the gastric juice attacks the proteins in the foodstuffs in the presence of hydrochloric acid, breaking them up into albumoses and peptones. Those latter substances are further attacked by the trypsin in the pancreatic juice, and the erepsin in the intestinal secretion, with the formation of various peptides and amino-acids. The proteins in the food are, therefore, reduced by ferments in the alimentary tract, and the final products—the amino-acids—constitute the building-stones on the "Bausteine" of Abderhalden. These building-stones, or "Bausteine," are absorbed into the blood-stream, and the cell takes from the blood amino-acids in proportion to its individual requirements. Over this absorption and distribution of amino-acids the liver exerts a protective influence, preventing any foreign elements from passing into the circulation in the form of undigested proteins. It also controls the quantity of these amino-acids

entering the blood-stream. The lymphatic system similarly exerts a protective influence by preventing the entrance of body cells into the circulation. The existence of such defensive mechanisms would explain the constancy of composition of the blood.

Physiological considerations.—In order to demonstrate the production of a specific ferment after the entrance of a chemical substance foreign to the blood, we have only to turn to a number of facts which recent advances in physiology have added to our knowledge of the utilisation of food-stuffs. For example, we know that cane sugar undergoes decomposition when introduced as such into the blood by means of the intestinal tract. It is quite easy to demonstrate the change which takes place by means of a good polarimeter, since the optical effects are so well marked. To take an example: the blood of an animal is taken and the serum mixed with a solution of cane sugar. The polarimeter shows that the cane sugar remains unchanged. The following day 5 gm. of cane sugar are given intravenously and a sample of blood taken twenty-four hours later. The serum, when mixed with the cane sugar solution, showed an original rotation of + 0.45°, but forty-five hours afterwards the rotation was - 0.50°. From this experiment we must conclude that the cane sugar has excited the production of the ferment *invertin*, which destroys it, thus preventing it from being excreted unchanged by the kidneys. Another similar phenomenon is the observed increase of fat-splitting power of the serum after an excessive absorption of fat from the intestine. Everyone is no doubt familiar with the milky serum which frequently occurs after a meal rich in fat, and I have been able to investigate the changes which take place in such sera by means of the polarimeter. The fat which accounts for the opalescence of the serum rapidly disappears with the accumulation of the resulting products in the serum. The chemical alterations which take place may profoundly modify the physical character of the serum, and this point should receive attention in all work upon blood sera. The oft-quoted experiment of giving large quantities of egg albumen by the mouth and obtaining it in an unaltered form in the urine has not been corroborated by recent workers upon the subject. This experiment I have myself repeated, and by the use of a new and delicate test for egg albumen have been unable to detect its presence in the urine even after the ingestion of very large quantities. Examination of the blood serum however, clearly demonstrated that some substance was present which would digest egg albumen, and egg albumen only, and that this was not previously present. Abderhalden has demonstrated by the polarimeter method that injections of various albumens, seiden-peptone, and even the vegetable proteins, gliadin and edestin, give rise to specific ferments when injected into animals. These various ferments which have been shown to develop in the blood are regarded by Abderhalden as products of the

leucocytes, a view first suggested by Sajous in 1903. No matter what their real origin, one point stands out prominently, and that is their rapidity of formation and just as rapid disappearance. The fact that they are so short-lived would suggest that they are not of the nature of antibodies, and would also explain why we have no evidence of anti-ferments. However, it is mainly the question of the specificity of these ferments, which is of fundamental importance, and we will turn our attention to the available evidence at the present moment in favour of this view. Since the first condition which received attention at the hands of Abderhalden in the application of his theory to practical medicine was pregnancy, we may perhaps pause to consider the results obtained. Schmorl, Veit, and Weichardt have demonstrated that chorionic epithelium entered the circulation during pregnancy, but at the time they were not aware that chorionic villi were present in the fertilised ovum in the first month of gestation. This latter point has, however, been clearly demonstrated by Peters, Stahl and Beneke, Brice and Teacher. The presence of chorionic villi in the circulating blood should excite the production of a specific ferment, and the serum of a pregnant woman should be capable of digesting placental protein. This has been found to actually occur, and a large volume of literature has appeared from all parts of the world dealing with this particular ferment and its detection outside the body. That placental tissue does play a prominent part in the production of a protective ferment has been shown conclusively by a number of animal experiments. The serum of a pregnant woman can be inactivated by heating to 60° C. for half an hour, thus demonstrating that the body in question is destroyed by exposure to this temperature. An extract of human placental tissue in salt solution and also human placental peptone was injected into dogs, rabbits, and guinea-pigs, either intra-venously or intra-peritoneally, the blood of normal animals mixed with placental peptone being also used. In the case of dogs, two injections of 1 gm. of placental peptone were given on successive days, the blood collected eight days afterwards, and the serum tested against placental peptone by the optical method. In every case a breakdown of the placental peptone occurred. The rabbits received four intra-venous injections of 2 to 3.5 c.c. of placental extract, and six days afterwards the serum when tested gave a similar result. The same changes occurred in guinea-pigs after injections of 0.6 c.c. of placental extract into a shin vein. These experiments proved that a ferment or ferment-like body was present in the blood-stream, capable of detection by the optical method and the dialysation test. Abderhalden has reported the results of over 600 tests made in his laboratory by the optical and dialysis tests with only one or two errors. Over 200 papers have appeared since the method was first introduced by Abderhalden, and the greater part of this work confirms his claims as to the value of the tests in the diagnosis of pregnancy. The minority, not

content with admitting their failure, have thought fit to condemn the whole principle in no unmeasured terms, and have called down upon their heads a just rebuke from Abderhalden himself. It is clear from the technique of the tests employed that a proper acquaintance with the methods can only be acquired after a long experience and much patience. I know of no tests which require more attention to details and the exercise of patience, but fortunately the latter is a common characteristic of scientific men. The acquisition of the necessary precision took me eighteen months of continuous work, involved the destruction of hundreds of dialysis thimbles, and resulted in the first fifty or so tests being discarded. Had I thought fit to publish my results on, say, the first hundred observations, I too might have found myself amongst the minority. It is, of course, quite easy to find fallacies in the work of every investigator, and so explain their mistakes, but as a general rule this is unnecessary. In my own experience of the diagnosis of pregnancy—a condition which admits of no misinterpretation—had I met with failure I should have soon been informed, and the tests at once would have been discarded, at any rate from the point of view of differential diagnosis. As it is, I find at this hospital that the staff of the gynaecological department have great faith in the Abderhalden methods for the diagnosis of pregnancy. Apart, however, from the actual diagnosis of pregnancy, the tests, and in particular the optical test, would appear to be of great value in the toxæmias of pregnancy. In every instance human liver-tissue has been disintegrated by the serum from such cases, and the behaviour towards placental tissue has been abnormal. The digestion of placental peptone is practically inappreciable, especially in severe cases, and the dialysation test may be quite negative. That this difference is not due to the presence of an anti-ferment has been conclusively proved by observations upon normal pregnant sera. It would appear, therefore, that the elimination or absence of the specific ferment has some connection with the ætiology of the conditions in question. The value of the tests can be perhaps more fully appreciated by reference to three cases investigated at the same time, all three with a provisional diagnosis of eclampsia. Two digested placental tissue very feebly, but liver and kidney tissue were well digested. The third case gave well-marked placental reactions, and also digested kidney tissue, but not liver tissue. The first two cases turned out to be true cases of eclampsia; the third proved to be albuminuria in pregnancy with uræmic fits due to chronic nephritis. Such cases illustrate very well the value of the tests, and also the necessity for complete absence of any bias—perhaps a characteristic of the present-day pathologist. Some observers have recently stated that the serum of cancer patients will digest placental tissue as well as carcinoma tissue, but in my experience this has only occurred once, and this patient was not only pregnant, but also had a growth which was subsequently proved to be malignant

Finally, with regard to the specific ferment in pregnant women, it seems highly probable that the placenta must be living in order to excite its action.

The fact that placental tissue is capable of producing a specific ferment in the blood at once led workers into the field of malignant disease, with the object of applying the principle to the diagnosis of cancer. Here, however, there has unfortunately been little success, and a word of caution is necessary. It seems the hand of fate that is held up against any attempt to elucidate the problems of malignant disease, and this is certainly true with regard to the Abderhalden test. However, the investigations have not been sufficiently extensive at present to warrant any definite statement, either for or against the presence of a specific ferment or ferments in malignant disease. It would appear that some early cases do not react at all to one form of carcinoma tissue, and it may be that we shall require to investigate the reactions to all the various histological types before coming to any conclusions. Thus the serum from a case of columnar-celled carcinoma of the stomach may not contain a ferment capable of digesting a spheroidal-celled carcinoma when used as substrate, but will digest the columnar-celled carcinoma tissue.

In various other fields, however, the Abderhalden claims have been supported by most striking results.

Lampe has demonstrated the occurrence of specific ferments in the serum of exophthalmic goitre capable of digesting exophthalmic goitre tissue, thymus tissue, and also ovarian or testicular tissue, and his results have been confirmed by Kolb and Bauer. These observations would, therefore, tend to show that exophthalmic goitre is due not to hyperthyroidism, but rather to a malfunction of the thyroid gland, since only thyroid tissue from a case of exophthalmic goitre is broken up, whereas normal thyroid tissue remains unchanged. Further, the thymus and generative organs would appear to have some relation to the origin of the disease, and we know that the thymus is frequently enlarged in exophthalmic goitre. The question of a specific ferment capable of digesting tubercle bacilli has been investigated by Abderhalden, who reports favourable results in military tuberculosis. Amongst other infectious diseases perhaps the most striking contribution is that of Schütz and Grote, who found a ferment antagonistic to lymphoid tissues in cases of scarlet fever. The interest which attaches to these observations is increased when one recalls the observations of Bernhardt in 1911 upon the transmission of scarlet fever to monkeys by the injection of lymphoid tissue from scarlet fever patients.

The application of the same principle to nervous and mental diseases was due in the first place to Fauser, and since the publication of his work further corroboration has been forthcoming. The proteolytic powers of serum of such patients has been tested against various antigen-like substances, more particularly brain, testicular, and ovarian

tissue. The sera of cases of dementia præcox, when examined in this way, gives very striking results as regards the digestion of the above-mentioned tissues. The serum of a male patient with dementia præcox will digest testicular tissue, whereas that of a female patient under the same conditions splits up ovarian tissue in addition to the cortical tissue of the brain. In cases of manic-depressive insanity no ferments have been detected at all, but in epilepsy brain tissue is digested. Binswanger has shown that brain tissue digested immediately after an attack of epilepsy, but fourteen days after no digestion occurs. This is very striking in view of the fact that we find much neuroglia tissue formation in epilepsy, and the tests would suggest the possibility of epilepsy being set up by the disintegration of brain substances. The results of the application of the Abderhalden tests would appear to be of great value in differential diagnosis, more especially in the early stages of dementia præcox.

The foregoing account would, therefore, indicate that the application of the Abderhalden tests are unlimited. By this means we may learn more concerning the inter-relationship of the ductless glands and the part these organs play in disease. The discovery of the occurrence of such protective ferments in the blood is of the greatest practical importance to clinical medicine, not so much, perhaps, from the point of view of diagnosis, but rather as a means of linking up our knowledge and placing many points upon a definite scientific basis. The whole question has created a profound impression throughout the scientific world, and has been the means of stimulating a large body of workers to investigations along entirely new lines.

The above brief summary will, I hope, serve to demonstrate the actual occurrence of such protective ferments, and further their great characteristic, namely, specificity. It will also tend to show that only the protein part of the organ is attacked, thus limiting the question of specificity down to the proteins themselves. Now Abderhalden claims specificity for every type of protein, and explains this in the following way: All the proteins when hydrolysed give practically the same final products, namely, amino-acids, to the number of some twenty or more. Now, when we come to synthesise these twenty amino-acids into a protein complex by simply altering the sequence we can obtain billions of different proteins; 2, 132, 902, 008, 176, 640, 000, in fact, without in any way altering the form of combination. Now, it is quite possible that one protein does not occur alone in a single cell. There may, on the other hand, be several proteins present grouped together in a particular way. Thus we see the number of protein combinations is infinite, and no one can conceive, much less calculate, the actual numbers. In this question chemical physiology soars into realms even transcending those of the astronomer. Thus we can easily understand that there is a specific protein or group of proteins in a chorionic villus cell, in a carcinoma cell, and a

tubercle bacillus, to quote a few instances. This conception would help us to understand the characteristics of the various bacteria and the specific action of vaccines. The protein or proteins in a staphylococcus are specific for this organism, and when injected into the body excite the production of a specific ferment to destroy the staphylococcus. The injection of streptococci, on the other hand, would presumably have no effect on the growth and development of the staphylococci already present.

The great value of the work of Abderhalden would therefore appear to lie in the fact that it has advanced immunity studies to an inconceivable extent. Not only does it go to the root of the problem, namely, the cell itself, but it emphasises the fundamental importance of the proteins in immunity. The action of all other bodies is purely a subsidiary one, and in the case of colloidal substances in all probability a physical effect only. The influence of colloidal substance on the protective ferments has been studied by Plaut, and I am at present completing an investigation where I hope to separate the active agent from the serum, and so render the tests more certain and therefore of greater diagnostic value. So far as my results go they tend to show that such a separation of colloids is possible, and the results are rendered very striking. In the near future it may be possible to so modify the Abderhalden test as to give it a far greater value and to bring it within the scope of those sceptics who at present would condemn it upon their own isolated experience.

THE SUPPLY OF SYNTHETIC AND OTHER DRUGS.

By W. H. HURLEY, D.Sc.(Lond.),
Lecturer on Chemistry, St. Bartholomew's Hospital.

THE *Journal of the Chemical Society* contains abstracts of all the papers describing the results of original work in organic chemistry published in every important periodical in the world which deals with the subject of chemistry. That *Journal* for the year 1913 begins its organic abstracts with a series of three German patents, and publishes during January 1914 abstracts, of which 42, that is, 21 per cent., are abstracts of German patents.

The first three abstracts referred to relate to substances which may be of use in the preparation of synthetic rubber, and the last four abstracts for that month relate to organic compounds containing mercury which may be of use in medicine. This statement will serve to convey some idea of the great activity of certain German manufacturers in this one branch of chemistry.

As soon as the value of a drug becomes known these manufacturers are ready to make it and sell it, and more

than this, they employ skilled pharmacologists and chemists to improve upon it, taking care to patent every reaction which in their opinion could be made use of in the preparation of their own new drug. In this way the Germans have almost secured a monopoly of the manufacture of synthetic drugs.

Every medical man in this country knows this; he has lately been faced with the difficulty of procuring certain drugs; he has had to pay increased prices for such of them as he has been able to obtain. Now, he naturally asks why are not these things made here. Is it that the British chemist is incompetent?

In considering the question of the manufacture of synthetic drugs in this country, there are three things to be considered: (1) The source of the raw material. (2) The operations involved. (3) The patent rights.

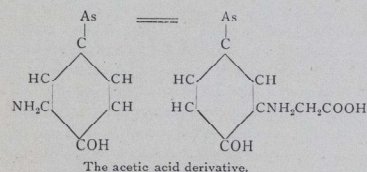
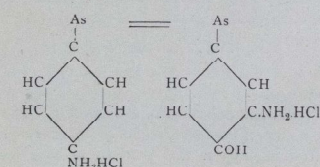
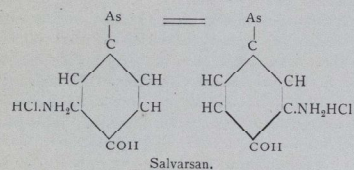
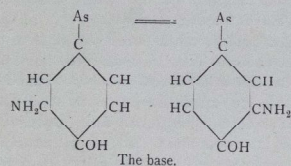
(1) The chief raw materials required are alcohol, acetic acid, coal-tar, certain inorganic compounds most of which are procurable in this country. Alcohol is largely manufactured in this country, but much comes from Germany. In the use of alcohol, the British manufacturing chemist is at this disadvantage, he has to pay a duty of 14s. 9d. per gallon proof spirit on all the alcohol he uses. This makes it impossible for him to compete with foreign manufacturers who can use duty-free alcohol. Acetic acid is made to a limited extent in this country. Its chief source is the lighter kinds of wood which have to be distilled for its production. Naturally, it is chiefly made where wood is cheaper than in this country. Coal-tar is, of course, prepared on a gigantic scale here, and from it large amounts of benzene and phenol are also made here. As regards raw material, then, we are not badly off. Acetic acid, methyl alcohol for the preparation of formaldehyde, and acetone, all of which come from wood, are not made on a sufficiently large scale, and the Government is the only obstacle in the way as regards alcohol.

(2) It is absolutely safe to say that the British chemist is as competent to perform the operations required for the manufacture of these synthetic drugs from the raw material as any other chemist, not excluding the German. The proof of this statement is that many of these drugs are now being made here.

Salicylic acid, aspirin, phenacetin, salvarsan, and others, equal in every respect to the German products, are actually being manufactured in quantity in and around London.

(3) The patents: It will be best to give an illustration of the procedure adopted by the Germans as regards these, and we will take the case of salvarsan, which is the hydrochloride of the base, 3:3'-diamino-4:4'-dihydroxy-arsenobenzene. Valuable as this drug is, yet it possesses properties which, as one writer says, make it a drug which is not to be played with. One of these is that it is readily oxidised in air, forming a new compound, which is about twenty times as poisonous as salvarsan. To obtain a more suitable com-

ination of the base, and to occupy and fortify, as it were, the whole territory round about the base, a whole series of patents has been taken out. Thus, instead of the hydrochloride a formaldehyde derivative has been patented because its alkaline salts are "soluble and have a neutral reaction." In 1913 no less than twelve patents were taken out for the preparation of substances related to the base; for example, a hydroxyl group is left out of one benzene ring, and the amino is put in its place; or, instead of the hydrochloride of the base an acetic acid derivative is made. These games are illustrated by the following formulæ:



This case is not selected as an exaggerated one; it is so with every drug of importance. Lactophenin, triphenin, amygdophenin, citrophenin, and thermodin, are all simple modifications of phenacetin. It is surprising that these

things should be devised, tested, and advertised, but it is far more surprising that there should be a profitable market for them.

To account for this state of affairs is not an easy task, but the following are contributory causes: The organisation of German technology, the enterprise and unscrupulousness of the German manufacturers and the utter lack of enterprise in nearly, but not quite all of our own, the credibility of those who take these drugs and of many of those who prescribe them.

Besides these organic products the rest of Europe looks to Germany for the supply of two other products of very great importance, namely, potassium compounds and bromine. She has vast natural deposits of carnallite, sylvine, and other potassium and magnesium compounds in the district around Magdeburg.

From these she prepares and exports enormous amounts of potassium compounds of all kinds, and these are also practically the only source of bromine. Bromine can, of course, be again obtained from sea-weed, as it was before the Stassfurt deposits were so extensively exploited, but there is no other source of potassium so abundant and so cheap as that of the natural deposits.

Our chief supply of many other drugs and chemicals comes from Germany, but in every case the German supply can be dispensed with. It is a question for the great manufacturing chemists.

The chemists can be trained. Will the manufacturers employ them at a suitable salary? To start some industries in this country no doubt Government help will be required, and where this is the case it should be offered as it has been in the case of the aniline dye manufacture. Surely no such chance as the present will ever come our way again; it should be seized and held with all our might.

THE NAIL OF THE GREAT GRANDEE.



HARK to the tale
Of the long finger-nail
Of the great Grandee,
A Heathen Chinese,
Away in far Peking.

'Twas wont for the nobles of China to hold
A custom of old,
That manual work they never should do:
So a nail of their finger they grew long and lank,
As a sign of their rank,
Encased in a bit of bamboo.

He would fuss and would fidget
O'er his wonderful digit—
Did this noble Grandee,
A lordly Chinese,
Away in far Pekin.

At feasts and at functions, with show and parade,
His nail he displayed

For all the admiring people to view;
But to guard it from harm he would carefully slip it
In a little gold tippit.

Instead of the bit of bamboo.

None longer nor finer
Was grown in all China
Than the noble Grandee's,
A princely Chinese,
Away in far Pekin.

One day he was stricken, this noble Grandee,
Of a sore malady,

That threatened to end in the loss of his queene,
And, sad to relate, as he lay on his bed,

That nail it was shed,

Encased in its bit of bamboo.

Did he moan and bewail
The loss of that nail—
This lordly Grandee,
A stricken Chinese,
Away in far Pekin?

Did he bottle his grief
In Celestial belief
That sooner or later,
Much stronger and straighter,

A new one to grow would begin?

Perchance you will ask how the nail came to Bart's
From those foreign parts?

And consider my story a fable, untrue!
Go! seek the Museum, and there you will find,

With things of its kind,

The nail and its bit of bamboo.

There finish the tale
Of who took the nail
From the Great Grandee,
A sickly Chinese,
Away in far Pekin.

E. C. C.,

November 26th, 1914.

CHYLOTHORAX, WITH NOTES OF A CASE OF THE PSEUDO-CHYLOUS VARIETY.

A CLINICAL LECTURE GIVEN AT ST. BARTHOLOMEW'S HOSPITAL, ON FRIDAY, NOVEMBER 27TH, 1914.

By P. HORTON-SMITH HARTLEY, C.V.O., M.D., F.R.C.P.



GENTLEMEN,—Not long ago a case of chylothorax came under my care at the Brompton Hospital, and I propose to bring the chief facts in regard to it to your notice to-day. Before doing so, however, let me consider with you briefly the main points in regard to this interesting condition.

By the term *chylothorax* is meant an effusion of fluid into the pleura, which has an appearance somewhat resembling milk, and which is *non-purulent in nature*. Some of the first cases investigated were found to be due to an admixture of chyle with the pleural fluid, hence the origin of the term, "chylothorax." But as we shall see the majority of cases are not of this nature, so that to this extent the term is a misnomer.

The occurrence of non-purulent effusions into the serous cavities having an appearance resembling that of milk, though not common, has been recognised since the year 1633, when Bartolet described a pleural effusion of this nature. It is only in comparatively recent years, however, that the subject has attracted much attention. Such collections are met with most often in the peritoneum, less frequently in the pleura, and only very rarely in the pericardium. They sometimes occur simultaneously in both peritoneum and pleura.

THE RARITY OF THE CONDITION.

From a careful search into the recorded cases of the condition, recently made by Dr. Scholberg and Mr. Mackenzie Wallis, and published in two important papers contributed to the *Quarterly Journal of Medicine* in 1910 and 1911, it would appear that previous to 1860 there were recorded 25 cases of milky peritoneal effusions. During the next fifty years the authors were enabled to trace 171 (including those described in their papers), making a total published of 196. In these statistics milky effusions due to parasitic infection were not included, but the occurrence of such cases in England is undoubtedly very rare.

Milky effusions into the peritoneum are, therefore, clearly uncommon, though perhaps not so rare as the figures which I have quoted would seem to show. Such effusions, however, occurring into the pericardium are undoubtedly of great rarity, only eight having been described, and I have never seen one myself.

As regards the pleura Dr. Scholberg and Mr. Mackenzie Wallis were able to find 60 cases recorded in the literature, the first being a case described by Rokitsky in 1865.

Milky effusions into the pleura would therefore appear to be less rare than similar collections in the pericardium, but not so often met with as those occurring in the peritoneum. And this statistical result accords with my own experience.

CLASSIFICATION OF MILKY EFFUSIONS.

Let us turn now to cases of chylothorax, with which I have to deal to-day, and consider how such milky effusions in the pleura should be classified—and what I have to say here, applies also to milky effusions occurring in the peritoneum.

Before, however, doing so, we must ask ourselves the question—and from the point of view of treatment it is a very practical one—namely, how are we to decide that the milky fluid is of the nature we are describing, and not merely a thin purulent fluid—such, for example, as we meet with from time to time in the pleura, when the organism present is of low virulence, or when a septic condition is superimposed upon a simple pleurisy with serous fluid already exuded. And the question is the more important in view of the fact that in chylothorax the fluid effused is not always of a dead white, milky colour, but may sometimes be of a yellowish or greenish-yellow colour, in which case the resemblance to thin pus may be pronounced.

The answer is simple. If the fluid be pus:

- (1) Under the microscope numerous cells will be found, the number corresponding to the opalescence.
- (2) *Centrifugalisation* will yield a deposit of cells at the bottom of the tube, and a clear supernatant liquid.
- (3) *Filtration* through filter paper will also keep back the cells and yield a clear filtrate.

In all these points the fluid will differ, as we shall see, from a true milky effusion. In addition the specific gravity of the purulent fluid will be high, possibly reaching 1035–1040, and the chemical composition will differ—analysis showing a high percentage of total solids, with much protein matter (mostly nucleo-proteid), totalling perhaps 10 gm. per cent. or more.

A simple examination, therefore, on the lines which I have described will easily enable the diagnosis to be made.

Assuming now that the fluid which we are examining is non-purulent in nature, and that we are dealing with a true milky effusion into the pleural cavity, what are the characters of the fluid? And here I must at once state that cases of chylothorax must be sharply divided into two groups:

- (1) *True chylothorax*, (2) *Pseudo-chylothorax*, in both of which the naked-eye appearance of the fluid may be very similar. In the first variety, the *true chylous variety*, the fluid has become milky owing to the fact that as a result of injury or pressure upon the thoracic duct, a rupture of its walls has occurred, and chyle has found its way into the pleural cavity. The milky colour in fact is due to the presence of free fat. In the *pseudo-chylous form*, on the

other hand, the milky appearance is the result, as Dr. Scholberg and Mr. Mackenzie Wallis have shown, of the presence in the pleural fluid of a special compound or "complex," a lecithin-globulin or (in the case which I am about to describe) a cholesterol-globulin compound, of which I shall speak more fully later. The physical and chemical characters of the fluids in these two groups are somewhat different, and, following the investigations by Dr. Scholberg and Mr. Mackenzie Wallis, may be briefly given as follows:—

The True Chylous Variety.

1. The fluid tends to accumulate rapidly, and in consequence large volumes are removed by paracentesis.
2. Degree of opalescence more or less constant at successive tapplings.
3. Possesses an odour corresponding to the odour of the food digested.
4. It putrefies.

5. Generally creams on standing, owing to the amount of fat present.

6. Specific gravity generally exceeds 1012.

7. No change occurs on filtering through filter paper. On centrifugalisation the fluid creams and may partially clear.

8. *Microscopically*, many fine fat globules are seen, staining with osmic acid and Sudan III. A very few white blood-corpuscles are visible.

9. *Shaking the fluid with ether and a little potash dissolves the fat and renders the fluid clear.*

10. Total solids greater than 4 per cent.

11. The total protein-content generally exceeds 3 gm. per cent., and of this amount serum-albumen forms the largest fraction—globulin occurs only in traces.

12. Mucinoid substances absent.

13. *Fat content generally high*—varying from 4 to 4 per cent. The fat corresponds in all its properties to the fat contained in food.

The Pseudo-chylous Variety.

1. The fluid collects more slowly—the volume of the fluid varying with the exciting pathological condition.

2. *The opacity often increases or diminishes at successive tapplings*; and may entirely disappear.

3. *Odourless.*

4. *It long resists putrefaction*—probably owing to the presence of lecithin.

5. It may or may not cream, depending on the amount of fat present.

6. Specific gravity generally less than 1012.

7. No change occurs on filtering through paper, nor on centrifugalisation; but on filtering through a Pasteur candle the fluid clears.

8. *Microscopically*, numerous fine highly refractive granules (lecithin-globulin complex) are seen, which do not stain like fat.

Cellular elements may be numerous.

9. *Shaking with ether and potash may dissolve some fat, but the opalescence remains.*

10. Total solids rarely exceed 2 per cent.

11. Protein-content generally varies between 1 and 3 per cent., the serum-globulin occurring in appreciable quantities.

12. Mucinoid substances sometimes present.

13. *The fat content is generally low* and may be present in traces only; in its melting point and chemical composition it proves to be pathological fat.

14. Of the lipines cholesterol is invariably found, and *lecithin only occurs in traces*.

15. There is no evidence of the presence of a lecithin-globulin complex.

14. *The most characteristic lipine is lecithin; cholesterol may be present.*

15. *The lecithin is mainly combined with the globulin, and the suspension of this complex is the cause of the milky appearance.* If this complex be removed by filtration through a Pasteur filter, or be precipitated by half-saturation of the fluid with ammonium sulphate, or as the result of the removal of the salts by dialysis, the opalescence at once vanishes.

16. The salts and organic substances present approximate to the values found for chyle obtained from the thoracic duct.

16. The salts and organic substances correspond closely to those of lymph and serous fluids.

NOTE.—The figures given for specific gravity, total solids, and total protein-content must be taken as relative only, and may be found considerably higher if the pleura be the seat of much inflammatory change.

We thus see that in the true chylous variety the opalescence is due to the presence of chyle, and to the large amount of fat present. If the fat be removed by shaking with ether and potash, the opalescence vanishes. In the pseudo-chylous form, on the other hand, though fat may be present, the opalescence is not due to it, and does not disappear on shaking with ether and potash, but results from the suspension in the fluid of a combination of globulin with lecithin (or cholesterol). Dr. Scholberg and Mr. Mackenzie Wallis proved this in the following way: they half saturated the milky fluid with ammonium sulphate, thus causing a precipitate, which on investigation proved to be composed of globulin and lecithin. On filtering the precipitate a clear fluid resulted. A similar result also followed the filtration of the milky fluid through a Pasteur filter, which kept back the lecithin-globulin complex, and yielded a clear filtrate. That the above complex is held in suspension by the inorganic salts present was proved by exposing the fluid to dialysis. As the salts were in this way removed the complex was precipitated and the fluid cleared.

ÆTIOLGY.

Of the two varieties of chylothorax, true and false, the pseudo-chylous form is probably the one most frequently met with.

The causes which produce chylothorax of the true chylous type may be reduced to two:

(a) *Increased pressure within the thoracic duct*, for the most part the result of malignant growth, leading to backward flow of the chyle along the pulmonary and pleural lymphatics, whence easy access is obtained to the pleural cavity.

(b) *External violence resulting in rupture of the thoracic duct* and presumably of the pleura.

Of these two causes the former is the more important.

The pseudo-chylous form would seem to occur most often in connection with *malignant disease and tuberculosis*—and it has been suggested that the lecithin, the presence of which in the fluid we have seen to be so important, is set free as the result of cell-destruction taking place during the course of the disease. The lecithin subsequently finds its way into the serous cavity, where it unites with serum-globulin to form the complex which produces the milky appearance.

It will be noticed how frequent is thus the association of malignant growths with all forms of chylothorax. This is also shown in the following way. If we take the list of published cases of chylothorax, to which I have already referred, in which, however, it is often difficult from the insufficiency of the data to decide whether the case belongs to the true or false variety, we find that taken as a whole they may be ætiologically grouped as follows:

Malignant disease	24
Tuberculosis	0
Injury	8
Hodgkin's disease	2
Cirrhosis of the liver	2
Lymphangicctasis	2
Morbus cordis	2
—	—
49	

Nearly half the cases were thus dependent upon new growth, tuberculosis and injury taking second and third places, though at a very considerable distance.

AGE AND SEX.

The condition occurs in either sex and at all ages. It is, however, somewhat commoner in the male, partly perhaps as the result of the greater liability of males to injury. Taking the published cases of chylothorax, whether of the true or false variety, the figures are as follows, so far as the data can be obtained:

Males	32
Females	20
—	—
Total	52

As regards age the youngest case recorded is that of a child, æt. 5 months, the condition being the result of injury—the oldest patient was æt. 67, the chylothorax in her case following upon new growth. The figures are as follows:

Age.	
From 0-10	1 case
.. 11-20	4 cases
.. 21-30	10 "
.. 31-40	11 "
.. 41-50	10 "
.. 51-60	8 "
.. 61-70	4 "
—	—
Total	48

Thirty-one cases out of forty-eight thus occurred between the ages of 20 and 50.

THE SYMPTOMS.

The symptoms of chylothorax are in no wise distinctive. The side gradually fills with fluid, and, if sufficient in amount, displacement of the heart follows. The temperature is generally not raised, and the patient complains of little or nothing beyond some shortness of breath on exertion. It is not indeed until an exploratory puncture is made that the peculiar character of the fluid is recognised. Its nature might be suspected, however, if a fluid of like character had already been withdrawn from the peritoneum.

PROGNOSIS.

The prognosis in a case of chylothorax of *whatever type* is serious, the primary cause of the disease, whether growth, tuberculosis, or injury, being in itself of grave augury. The presence of the milky effusion does not materially add to the gravity of the condition, unless the resulting respiratory distress calls for repeated paracentesis, in which case the drain of fluid from the circulation may hasten the downward course of the original malady.

Recovery, however, is by no means unknown; it has been met with in certain cases produced by injury and may occur in others secondary to disease. Thus in a case recorded by Mr. Penn Milton, which occurred in a patient suffering from early phthisis, recovery ensued after a single aspiration, in which 300 oz. of milky fluid were removed from the right side of the chest. Again, in a boy, æt. 13, suffering from Hodgkin's disease, who was under the care of Dr. Ormerod, and whose case is recorded in the Hospital Journal (April, 1907, p. 98), the chylothorax—in this case of the true chylous variety and on the right side—disappeared after three aspirations had been performed. In this and similar cases the recovery is probably due to the enlargement of the anastomosing lymph branches, which connect the thoracic with the right lymphatic duct.

TREATMENT.

In considering the question of treatment our first care must be to satisfy ourselves that we are not dealing with a purulent effusion, in which case surgical treatment will probably be required. And that the point is not an academic one is shown by the fact that I have known the mistake made and resection advised, though further investigation proved the case to be one of chylothorax.

In chylothorax, whether of the true or false variety, we should not be in too great a hurry to intervene. In the true chylous form, if the heart be much displaced and dyspnoea urgent, paracentesis must be performed; otherwise it is best to wait, and to trust to the establishment of the collateral circulation. As we have seen, this may occur even after one or two tapplings. In cases of the pseudo-chylous variety the effusion should be treated on ordinary lines as though it were a simple serous effusion, aspiration being performed from time to time as occasion requires.

NOTES OF A CASE OF PSEUDO-CHYLOTHORAX OCCURRING IN A PATIENT SUFFERING FROM HODGKIN'S DISEASE, WITH REPORTS BY DR. R. A. YOUNG AND MR. MACKENZIE WALLIS.

Let me now focus what I have said to you by briefly describing the following case of pseudo-chylothorax lately under my care in the Brompton Hospital, and in doing so I should like to take this opportunity of thanking Dr. R. A. Young and Mr. Mackenzie Wallis for their valuable help in the microscopical and chemical examinations.

A. H—, æt. 35, railway guard, was admitted into the Brompton Hospital on September 12th, 1913, complaining of weakness and pains in his chest. In his past history there was nothing of importance to record except that in 1901 he suffered from left-sided pneumonia and pleurisy. From this he completely recovered and remained well until March, 1913, when he began to complain of debility. He continued his work until July, when, owing to increasing weakness and pain in the left side of the chest, he was obliged to relinquish it. About this time also he began to complain of cough and expectoration and to suffer from shortness of breath and night sweats. There was some little loss of weight. On September 12th he was admitted into the Hospital.

Condition on admission.—The patient looked ill. His temperature was swinging, rising at night to between 100° and 101° F. Pulse 120. Respiration 32.

On examining the chest the signs of a large left-sided pleural effusion were observed. The left side was dull from apex to base, with very weak breath-sounds and diminished vocal vibrations; the heart was displaced about a finger's breadth to the right of the sternum. The note at the right apex was slightly impaired, but no added sounds were audible. The right lung appeared natural.

The abdomen contained some little free fluid. The spleen was markedly enlarged, the organ reaching down to the umbilicus and presenting a very definite edge. It was noticeable, however, that it did not show the mobility usually associated with the spleen, probably on account of the large left-sided pleural effusion which impeded the movements of the diaphragm.

The bowels were somewhat loose; the urine and other organs were natural.

On September 13th, the day following his admission, the left side was explored and a syringe full of milky fluid, presenting a pale yellowish-white colour, and suggesting at first sight pus, was withdrawn. On September 19th, aspiration was performed and 49 oz. of a similar fluid were evacuated. The note now became resonant in front to below the nipple, but the breath-sounds remained very weak.

The opalescent fluid withdrawn was sterile and gave the following differential count: 80 per cent. small lymphocytes, 10 per cent. large lymphocytes, and 10 per cent. polymorpho-

nuclear cells; and as about this time tubercle bacilli were found in the sputum, the case was considered to be one of pulmonary tuberculosis, with tuberculous pleurisy, in which the fluid presented the chylous character. The spleen was also regarded as tuberculous in nature, studded in all probability with caseous masses, although the rarity of such a condition in the adult was fully recognised.

After the paracentesis the temperature continued hectic and the side rapidly refilled, the heart becoming again displaced and the left side measuring $\frac{3}{8}$ in. more than the right.

On September 26th paracentesis was again performed and three pints of milky fluid withdrawn. The cytological count was very similar to that found on September 10th; no tubercle bacilli could be discovered in the fluid. The blood count on October 2nd, showed 3,700,000 reds, hæmoglobin 80 per cent., whites 4900. The differential count showed some diminution in the lymphocytes with corresponding increase in the polymorphonuclear cells, but was otherwise normal.

On October 7th, paracentesis was performed for the third time, and three pints of opalescent fluid again withdrawn. On cultivation this proved to be sterile, and no tubercle bacilli could be found in it. Cytological examination showed it to contain, small mononuclears 81 per cent., large mononuclears 10 per cent., polymorphonuclears 9 per cent.

After this date the temperature still continued to swing, reaching 100° F. at night, but the patient suffered but little. Towards the end of the month, however, dyspnoea returned (respirations 32, pulse 128), and as the heart was displaced paracentesis was performed on October 29th, for the fourth time, three pints of the opalescent fluid being removed.

From this time the patient gradually went downhill, becoming weaker, and being troubled with diarrhoea. The chest filled up again, and there was some dyspnoea, but no real distress. At the end of November he became much worse, with delirium and incontinence of urine and feces, and died peacefully at 7 p.m. on November 30th.

Post-Mortem Examination.—The autopsy, made by my colleague, Dr R. A. Young, showed that the diagnosis made during life of tuberculosis, based largely on the reported finding of tubercle bacilli in the sputum, was incorrect. No evidence of tuberculosis could be discovered in lungs, pleurae, or spleen, but the patient was found to be the subject of a diffuse and extensive new growth, thought at first to be sarcomatous, but which microscopic examination proved to be lymphadenomatous in nature. The following were the more detailed findings:

Body.—Much emaciated.

Chest.—On opening the chest the right pleural cavity was found to contain 8 oz. of clear serous fluid—the pleura itself was natural. The left pleural cavity contained about two pints of slightly opalescent fluid, much less milky than on the occasion of the last paracentesis, a month before

death. Dense adhesions were present at the apex, and one band of adhesions was present over the lower lobe, but the pleura was elsewhere shiny and appeared natural.

The lungs.—The left lung was markedly collapsed, and on section was slaty blue and airless. The right lung showed a considerable degree of emphysema, and was very œdematous throughout; a few adhesions were present at the apex. No tuberculous foci were found in either lung.

The larynx, trachea and bronchi were natural.

The bronchial and anterior mediastinal glands were markedly enlarged and showed secondary deposits of growth, but no naked-eye evidence of tubercle.

The pericardium was natural; the heart small, but otherwise natural.

On removing the heart and lungs a mass of growth, of firm consistency, was seen to extend over the four lower thoracic vertebrae, and to form a sheath over the lower and contiguous portion of the thoracic aorta. It also extended for some little distance under the adjacent portion of the left pleura.

The thoracic duct was not discovered. It was no doubt embedded in the growth around the aorta and in the dense adhesions at the apex of the left lung.

Abdomen.—The peritoneal cavity contained about 100 oz. of blood-stained serous fluid. On removing the contents a large mass of growth was found, nearly two inches in thickness, surrounding the whole of the abdominal aorta and the common iliac arteries. The growth extended widely in all directions behind the peritoneum and infiltrated the bodies of the second and third lumbar vertebrae, which presented in parts a rough worm-eaten appearance. The left suprarenal was embedded in the growth and infiltrated by it.

The liver was enlarged and contained numerous soft vascular growths. A gland, enlarged by growth, lay upon the gall-bladder, and others in a similar condition were seen along the lesser curvature of the stomach. Those along the upper margin of the pancreas were greatly enlarged and occupied by growth, but the pancreas itself was free.

The spleen.—The spleen was greatly enlarged, weighing 22 oz. Its surface was irregular from the presence of numerous growths within its surface. On section it was found to be riddled with growths, which were dark in colour, probably from hæmorrhage into their substance.

The stomach, intestines, bladder, prostate, and testicles were normal; the kidneys were enlarged and slightly fatty, and in the medulla of the right kidney was a small white nodule the size of a pea.

The receptaculum chyli could not be found, all the structures in its neighbourhood being densely infiltrated with growth.

The naked-eye appearances, thus described, suggested that the disease was a retroperitoneal sarcoma with numerous secondary growths. The following report, how-

ever, by Dr. Young, upon the microscopic character of the sections showed that in fact it was a case of lymphadenoma.

Report upon the Microscopical Characters of the Growth.

By Dr. R. A. YOUNG, M.D., F.R.C.P.

"(1) *A portion of the main retro-peritoneal mass of growth.* The section presented the characteristic appearances of true Hodgkin's disease or lympho-granuloma; the reticulum is very abundant and there are numerous typical giant cells. Under the one-twelfth power some of the cells in the reticulum showed eosinophile granulation. There was very little degenerative change, but some hæmorrhage was observed in parts of the section.

"(2) *Mediastinal lymphatic gland.* This showed similar characters, the cells, especially the giant cells, being very abundant.

"(3) *Bronchial gland:* presented similar appearances, but masses of old pigment were observed in parts.

"(4) *Liver:* infiltrated with growth. The reticulum was marked, and the giant cells very numerous. Hæmorrhage was observed in the growth in various places.

"(5) *Spleen:* the sections showed patches of growth, abundantly distributed, with typical characters. The giant cells were numerous. A considerable degree of coagulation necrosis was noticeable in the growth in this organ.

"(6) *Left supra-renal:* showed some growth with typical characters, more especially situated in the medulla.

"(7) *Pancreas:* free from growth.

"(8) *Prostate:* normal in character.

"(9) *Right kidney:* the small circumscribed nodule in the medulla showed the characters of a simple fibroma. No growth was found."

REPORT BY MR. R. L. MACKENZIE WALLIS UPON THE MILKY FLUID WITHDRAWN FROM THE PLEURAL CAVITY.

"The fluid was milky in appearance, presenting a pale yellowish-white colour. It was odourless and presented a specific gravity of 1021. Reaction alkaline.

"It did not cream on standing. The opalescence was not removed by filtration or centrifugalisation, but was removed by passage through a Pasteur filter. Chemically its composition was as follows:

Total solids	4.560 per cent.	
Inorganic ash	0.821 "	
Serum albumen	2.020 }	Total protein =
Serum globulin	1.555 }	3.57 per cent.
Total nitrogen	0.58 "	
Fat and lecithin	0.06 "	
Cholesterol	0.052 "	
Sugar	absent	
Nucleo-proteid	absent	
Mucin	a trace only	

Sodium chloride 0.43 per cent.

Ratio of albumen to globulin, nearly 2:1

Conclusion.—"The fluid in its physical properties behaves exactly like a pseudo-chylous fluid, *i.e.* it does not cream, the opalescence is not removed by filtration or centrifugalisation. Passage through a Pasteur candle, however, removes the opalescence.

"The opalescence is due apparently to the occurrence of globulin united to cholesterol and lecithin, the former being in greater quantity.

"In its chemical composition and physical properties the fluid behaves exactly like a pseudo-chylous fluid, but differs from those previously described in the preponderance of cholesterol over lecithin—the figure for the lecithin being too small to warrant inclusion as a definite entity.

"The fluid would appear, therefore, to be a true pseudo-chylous pleural fluid, and not derived from rupture or obstruction of the thoracic duct."

RIFLE CLUB, 1914.



ALTHOUGH the Miniature Range has only lately been re-opened, the result has been very satisfactory.

Nearly 10,000 rounds of ammunition have been expended during the last five weeks, and by no means vainly, as the extraordinary improvement in the scores handed in testifies.

The students have made considerable use of the range, the numbers attending showing, so far, no decrease.

The teaching staff has also been represented. The anatomy department gave several excellent demonstrations on the surface marking of targets.

It is to be regretted that the pathology and physiology departments have not yet been represented in force.

The Spoon Competition, lately held, was quite a success, the winners being: Class A, Messrs. Bourne and Wells; Class B, Mr. Williams.

It is hoped to hold these Spoon Competitions monthly.

Attention is called to the various Challenge Cups which have been presented to the Club in the past. It has been suggested that these should be competed for at the end of the Winter Session. Matches between the various departments might also be easily arranged.

The nursing staff has been well represented and shows considerable keenness; some of the members are already becoming expert shots.

The medical school attendants have also done very well, and show a most commendable keenness, as well as an all-round increase in scoring.

EXAMINATIONS AND DEGREES.

UNIVERSITY OF OXFORD.
D.P.H.

November, 1914

Part I.—G. B. D. Adams, A. E. A. Carver.
Part II.—G. B. D. Adams.
The degree of M.B. was conferred on G. S. Robinson on December 12th, 1914.

UNIVERSITY OF CAMBRIDGE.
December, 1914.

First Examination.

Part I. Chemistry.—H. B. Bullen.
Part II. Physics.—H. B. Bullen.
Part III. Elementary Biology.—H. B. Bullen.

Second Examination.

Part I. Anatomy and Physiology.—W. G. Wernicke.

Third Examination.

Part I. Surgery and Midwifery.—G. O. Maw.
Part II. Medicine.—N. Gray, F. D. Marsh, W. S. Suden.

The degree of M.B. was conferred on C. R. A. Thacker on December 11th, 1914.

UNIVERSITY OF LONDON.
M.D.

December, 1914.

Medicine.—T. P. Edwards.

Second Examination for Medical Degrees.

Part I.

(For Internal and External Students).

December, 1914.

PASS LIST.—H. C. Cox, H. E. K. Eccles, C. E. E. Herington, H. C. C. Joyce, L. K. Ledger, N. Synn.

B.Sc.

October, 1914.

A. Morford, first class honours in Physiology.

UNIVERSITY OF DURHAM.

The degree of M.B. was conferred upon H. Playfair Robertson on December 15th, 1914.

NEW ADDRESSES.

BRIGSTOCKE, F. W., Hospital Anglais de St. Jean, Rue de Bayeux, Caen, France.

CANE, Capt. A. S., R.A.M.C., No. 16 British Field Ambulance, 6th (War) Division, Indian Expeditionary Force "D."

DAVIS, Capt. C. Newton, I.M.S., c/o Messrs. H. S. King, 9, Pall Mall, S.W.

DOUGLAS, R. I., No. 2 Motor Ambulance Convoy, c/o British Red Cross.

GAYFORD, C., 28t, Clapham Road, S.W.

GEACH, R. N., 29, Iverna Gardens, Kensington, W.

GOSSE, F., Surrey Yeomanry, Bury Hill, Dorking.

HAMILTON, Major W. G., I.M.S., No. 5, Indian General Hospital, Indian Expeditionary Force "F," c/o India Office, Whitehall, S.W.

LADIN, G. W., Military Hospital Ship "Oxfordshire," Poste Restante, Southampton.

NICHOLSON, Lt.-Col. J. E., R.A.M.C., Military Hospital Ship "Oxfordshire," Poste Restante, Southampton.

WAX, Capt. L. F. K., R.A.M.C., c/o Messrs. Holt & Co., 3, Whitehall Place, S.W.

WHITE, Major F. N., I.M.S., Assistant Director-General, I.M.S., Simla, India.

APPOINTMENTS.

VERRALL, P. J., M.B., B.C.(Cantab.), F.R.C.S., appointed Medical Officer to Epsom College.

YOUNG, F. P., M.D., B.C.(Cantab.), M.R.C.S., L.R.C.P., appointed Surgeon to the Royal Victoria Hospital, Dover.

BIRTHS.

DINNS.—On December 2nd, at 34, Humberstone Road, Leicester, the wife of C. C. H. Dinns, M.A., M.B., of a daughter.

BURRA.—On December 3rd, at Little Kimble, the wife of L. T. Burra, M.D., of a daughter.

EVANS.—On December 7th, at 22, Church Street, Kidderminster, the wife of O. C. Penrhys Evans, M.D., of a daughter.

GASK.—On December 20th, at 4t, Devonshire-place, W., the wife of George F. Gask, of a son.

PHILLIPS.—On December 26th, at Clinton Road, Redruth, Cornwall, the wife of Lionel L. Phillips, M.R.C.S., of a daughter.

SIDGWICK.—On December 19th, at Ashby Parva Rectory, Lutterworth, the wife of Captain H. C. Sidgwick, R.A.M.C.—a son.

MARRIAGES.

BREWERTON-TINDALL.—On November 28th at Christ Church, Brondesbury, N.W., by the Rev. E. F. Ford, Elmore Wright Brewerton, F.R.C.S., of 84, Wimpole Street, and the late Chas. Brewerton, of Whetstone, and Mrs. Brewerton, of Stanstead Abbots, to Olive, youngest daughter of the late A. McIvor Tindall, M.R.C.S., and Mrs. Tindall, of Market Harborough.

BROCK-CORBETT.—On December 5th, very quietly owing to the war, at All Souls, Langham Place, by Canon E. Pearce, E. A. P. Brock, Lieutenant, R.A.M.C., to Froid, youngest daughter of J. F. Corbett, of 5, Cavendish Place, W.

FERGUSON-NASH-WORTHAM.—At the Parish Church, Shottermill, Haslemere, Surrey, on December 12th, Archibald, the only son of Dr. and the late Mrs. Ferguson, of Burnley, Lancs., to Eileen, the only daughter of Mr. and Mrs. Nash-Wortham of "Deepdene," Haslemere.

DEATHS.

ATAL.—Major P. Atal, I.M.S., M.R.C.S., L.R.C.P.

SKEY.—On November 28th, Fleet-Surgeon, A. R. H. Skey, R.N., M.R. P.S.(Land), M.R.C.S., L.R.C.P., at sea.

TAYLOR.—On December 2nd, at 180, Kennington Park Road, S.E., Herbert Taylor, M.R.(Land), aged 64.

ACKNOWLEDGMENTS.

Nursing Times, British Journal of Nursing, St. Mary's Hospital Gazette, New York State Journal of Medicine, Guy's Hospital Gazette, Long Island Medical Journal, L'Attualità Medica, University College Hospital Magazine, British Journal of Surgery, London Hospital Gazette, The Hospital.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial, or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, the Journal Office, St. Bartholomew's Hospital, E.C. Telephone: 1435, Holborn.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close, MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 9d. or carriage paid 2s.—cover included.

Clinical Research Department.

THIS department has been organised to meet the demands of practitioners in all parts of the country for reliable laboratory reports upon pathological material of all descriptions.

The aim of the Department is to send out reports based on the application of the most recent methods of research.

To insure the attainment of this aim, the services of those actually engaged in the teaching of Pathology in the School and in the practical laboratory work of the Hospital have been enlisted.

The reports will be signed by the actual workers, whose names will be a guarantee, not only of careful examination, but of adequate interpretation of the results by those who have made such work their special study.

The fees for such examination have been fixed at the lowest limit consistent with thorough work by competent and specially trained investigators.

On receipt of a letter an outfit for the collection and transmission of pathological material, together with printed directions and labels and a scale of fees, will be sent to any practitioner free of charge.

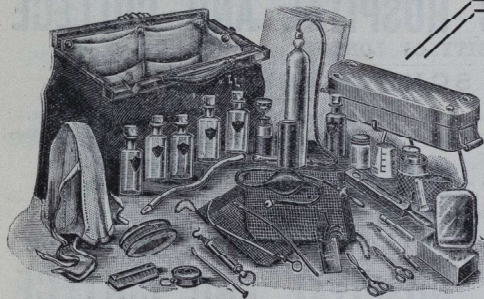
For other work fees will be specially arranged and special apparatus supplied.

The report will be as prompt as is consistent with the requirements of the examination.

Telegrams will be sent whenever desirable, and will be followed by detailed reports.

Cheques and Postal Orders to be made payable to Dr. A. E. STANSFELD or Mr. R. M. YIOK.

Specimens to be addressed to "The Clinical Research Department, St. Bartholomew's Hospital, E.C."



—The Original
'TWEEDY' BAG
will meet your
requirements

This bag has been extensively supplied to Extern Midwifery Clerks for the past ten years. Embodying all the features which experience has shown to be useful, it contains everything that can be wanted for "The District." The bag is made of best black, grained, Morocco leather, and is fitted with a removable, washable lining. The Sterilizer, long enough to take even axis-traction forceps, just fits in the bottom of the bag, thus obviating the risk of breaking any of the bag contents.

BAG COMPLETE £4 : 10 : 9 CONTAINING:

5 3-oz. N.M. Stopped Bottles, white, labelled, ditto, blue.	1 Straight Glass Vaginal Pipe.	1 Medicine Tumbler, minim in case.	2 pairs Pressure Forceps, Pean's.
1 Chalk's Drop Bottle, 1 oz., amber.	1 Metal Uterine Pipe.	2 Sponge Bags.	1 Tape Measure.
1 Ligature Jar.	1 Enema with Glass Rectum Pipe, red, sterilisable.	1 Wooden Zit Nail Brush.	1 Bath Thermometer in wooden case.
1 2-oz. Screw-capped Ointment Pot.	1 yd. Mackintosh, double-faced, stout.	1 Nail Brush, oval.	1 Soap Case.
1 Douche Vessel.	1 Plain Batiste Apron.	1 yd. 3/4 doz. 2-in. Half-circle Reversed Hagedorn's Needles.	1 Cake 1/2 Bimoid Soap.
1 yd. Tubing, for above.	1 Sterilizer, with Lamp, plated.	1 1/2-minute lens-front (red above normal) Clinical Thermometer.	1 Glass Female Catheter.
	1 Spring Balance, 16 lb., in 1/2 lb.	1 1-oz. Chloroform Drop Bottle.	1 No. 9 Gum Elastic do.
			1 No. 9 India-rubber Catheter.

S. MAWSON & SONS, 7-12, ALDERSGATE ST. LONDON, E.C.
TELEPHONE: LONDON WALL, 3230 (4 LINES) TELEGRAMS: "ELEVEN, LONDON"

St. Bartholomew's Hospital and College

(University of London).

Final Fellowship

OF THE

ROYAL COLLEGE of SURGEONS.

SPECIAL CLASSES

FOR THE

FINAL FELLOWSHIP EXAMINATION

IN

Surgical Case Taking, Surgical Anatomy,
General Pathology, Bacteriology,
Operative Surgery, &c.

Fees: Exclusive of Operative Surgery, £21,
or to St. Bartholomew's men, £10 10s.;
Operative Surgery, £10 10s.,
or for St. Bartholomew's men, £6 6s.

For further particulars apply to THE DEAN OF THE MEDICAL SCHOOL, St. Bartholomew's Hospital, E.C.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE

(UNIVERSITY OF LONDON).

ENTRANCE SCHOLARSHIPS.

The following FIVE SCHOLARSHIPS will be awarded after an Examination commencing on September 20th, 1915:

- (1) and (2) Value £75 each, in not more than three, nor fewer than two, of the following subjects: **Chemistry, Physics, Zoology, Botany, Physiology, Anatomy.**
- (3) Value £150, in not fewer than three of the following subjects: **Chemistry, Physics, Botany, Zoology, Physiology.**
- (4) Value £100, in Latin, Elementary Mathematics, and Greek, or French, or German.*
- (5) Value £50 (Jeaffreson Exhibition), for second best examination in the same subjects as (4).

* The examination in these subjects will be similar to that adopted at the University of London Matriculation Examination.

For the full regulations, &c., concerning the above, apply to THE DEAN, St. Bartholomew's Hospital, E.C.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE

(UNIVERSITY OF LONDON).

PRELIMINARY SCIENTIFIC DEPARTMENT.

The Instruction in this Department has been remodelled to meet the requirements of the

NEW REGULATIONS OF THE UNIVERSITY OF LONDON.

A Course of Instruction is now being given for the

FIRST EXAMINATION FOR MEDICAL DEGREES.

Students recently matriculated should devote a full Academical Year to the

LECTURES and LABORATORY WORK in **BIOLOGY, CHEMISTRY, and PHYSICS.**

Inclusive Fee, TWENTY GUINEAS, or the Subjects may be taken separately.

For fuller particulars apply to THE DEAN, St. Bartholomew's Hospital, London, E.C.

St. Bartholomew's Hospital and College.

INSTRUCTION

FOR THE

DIPLOMA IN PUBLIC HEALTH

The following Courses of Instruction are designed to meet the requirements of qualified men desirous of obtaining the Diploma in Public Health:

A. Laboratory Instruction

CHEMISTRY, including the practical examination, qualitatively and quantitatively, of various waters and effluents, of air, and of foods, the detection of preservatives in foods.

BACTERIOLOGY and PATHOLOGY OF PREVENTIBLE DISEASES, including the bacteriological examination of water, air, soil, and food; the practical testing of disinfectants and filters.

PHYSICS IN RELATION TO PUBLIC HEALTH.

B. Lectures

SANITARY LAW and ADMINISTRATION.

A three months' course of lectures on this branch of study is given three times yearly. Visits to places of public health interest are arranged in connection with these Lectures.

C. Out-door Sanitary Work with a Medical Officer of Health—

Arrangements have been made for the required three or six months' course with a M.O.H.

For particulars apply to—

THE DEAN OF THE MEDICAL SCHOOL.

ST. BARTHOLOMEW'S HOSPITAL, E.C.

St. Bartholomew's Hospital and College

(UNIVERSITY OF LONDON).

WINTER SESSION

Resumes January 6th.

THE HOSPITAL has 744 Beds and a Medical School, which contains large Lecture Rooms and Laboratories, as well as a Museum and a Library.
Every Special Branch of Medicine and Surgery has a Department.

ENTRANCE SCHOLARSHIPS.

Five Entrance Scholarships are awarded in September, of the aggregate value of £450.

Other Scholarships and Prizes amount to about £530.

PRELIMINARY SCIENCES.

BIOLOGY, CHEMISTRY, and PHYSICS are fully taught in the LABORATORIES apportioned to these subjects.

HOSPITAL APPOINTMENTS.

Twenty-eight House Physicians and House Surgeons are appointed annually from those Students who have passed their final qualifying examination.

Four hundred and twenty-four Ward Clerkships and Dresserships are open annually to Students before qualification.

STUDENTS' UNION.

The Union possesses a Club Ground of ten acres within easy reach of the Hospital.

HIGHER EXAMINATIONS.

Special Classes are held for

M.D., F.R.C.S., D.P.H.

RESIDENTIAL COLLEGE.

Students can reside within the precincts of the Hospital under the supervision of the Warden.

For further particulars apply, personally or by letter, to—

THE DEAN OF THE MEDICAL SCHOOL,

ST. BARTHOLOMEW'S HOSPITAL, LONDON, E.C.

St. Bartholomew's Hospital and College.

BACTERIOLOGY.

Classes in Bacteriology, each lasting five weeks, are given in the Bacteriological Laboratory to qualified men during the Winter and Summer Sessions.

For particulars apply to—

THE DEAN OF THE MEDICAL SCHOOL,

ST. BARTHOLOMEW'S HOSPITAL, E.C.

By Appointment  to H.M. the King. By Appointment  to H.M. Queen Alexandra.

POLISHED FLOORS. RONUK, LTD.

are prepared to Estimate for the Polishing and the maintenance of all kinds of floors in
**Hospitals, Institutions
and Private Houses.**
Write for Pamphlet.

Manufacturers of "RONUK" SANITARY POLISH.
Awarded Gold Medal at XVIIth International Congress of Medicine, and six Medals by the Royal Sanitary Institute, including the Highest and only Awards ever granted to a Polish.

The floors of the Wards and Staff Quarters of St. Bartholomew's Hospital are polished with "Ronuk."

"RONUK," Ltd., Head Office & Factory, Portslade, Brighton, Sussex.
Agents: LONDON, 16, South Molton St., W. MANCHESTER, 487, Deansgate.

The MONARCH

Fig. 29 A.



Visible Electric Steriliser :: :: and Water Heater.

Fig. 29 A.—Surgical and Dental Instrument Steriliser. Size of glass, 5 1/2 inches in diameter by 11 3/4 inches deep; metal parts made of heavy polished cast aluminium, with perforated bottom, and instrument container and electrical attachment, complete with 6 feet of cord.

Dental Extracting Forceps and Long-handled Instruments, also Surgical Instruments, including Sounds, Long Forceps, Curettes, Speculums, etc., with the exception of Obstetrical Forceps, can be completely sterilised in it. It is more convenient than a flat steriliser, and can be used effectively with one pint of water. The instruments can be removed while the water is boiling, and cooled off rapidly by being exposed to the air in an upright position.

Complete as illustrated £ 5 0

When ordering, specify voltage in use.

:: :: GUARANTEED FOR FIVE YEARS. :: ::

CLAUDIUS ASH, SONS & Co., Limited,
5 to 12, Broad Street, Golden Square, London, W.

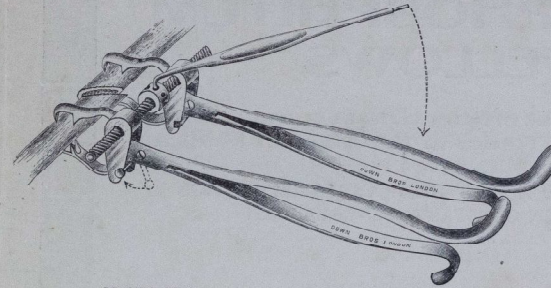
Established 1820.

Telephone: GERRARD 420 (5 lines).

DOWN BROS.' SPECIALITIES.

Instrument for Reducing Overlapping Fractures Preliminary to Internal Splintage of the Long Bones

— Suggested by Mr. G. H. COLT, F.R.C.S., —
Assistant Surgeon, Royal Infirmary, Aberdeen.



Designed to meet the difficulty sometimes experienced in reducing the fragments before applying a Lane's plate, this instrument secures easy, gentle, and entirely efficient extension. It fits the Lane's Forceps in general use, thus rendering special forceps unnecessary.

FULL DESCRIPTIVE CIRCULAR
ON APPLICATION.

DOWN BROS., Ltd.,

Surgical Instrument Manufacturers,

21 & 23, ST. THOMAS'S STREET, LONDON, S.E. (opposite Guy's Hospital).

Telegraphic Address: "DOWN, LONDON."

Telephone No.: HOP. 5500 (4 lines).

Factory: KING'S HEAD YARD, S.E.

GRANDS PRIX.
PARIS 1900. BRUSSELS 1910. BUENOS AIRES 1910.



GOLD MEDAL,
ALLAHABAD, 1911.

'PANOPEPTON'

'PANOPEPTON'

is the entire edible substance of prime lean beef and best wheat flour, thoroughly cooked, properly digested, sterilised, and concentrated in vacuo, and preserved in a sound sherry.

'PANOPEPTON'

is the food par excellence for invalids; in all acute diseases, fevers, etc.; in convalescence, for the large class of persons who, from feebleness or deranged digestion, or antipathy to ordinary foods, require a fluid, agreeable, and quickly assimilable food.

'PANOPEPTON'

proves an effective resource against sleeplessness when this is due to excessive fatigue, stress of mental work, or malnutrition.

'PANOPEPTON'

is at once a grateful stimulant and food.

Supplied in 6-oz. and 12-oz. bottles.

Made by
Fairchild Bros. & Foster,
NEW YORK,

And 64-65, Holborn Viaduct, London, E.C.

Agents for Europe, Asia, Africa and Australasia:


Burroughs Wellcome & Co.,

LONDON, SYDNEY, CAPE TOWN.

SYRUPUS HYPOPHOSPHITUM FELLOWS

**One of the most efficient, most complete, and
best all-round Tonics in the Materia Medica!**

FOR FOUR AND A HALF DECADES ITS REPUTATION
HAS BEEN CONSTANTLY INCREASING!

Reject  Cheap and Inefficient Substitutes
Preparations "Just as Good"

THE FELLOWS
MEDICAL MANUFACTURING CO. LTD.
MONTREAL & NEW YORK

Gout, Rheumatism, Lumbago, Sciatica and Obesity

successfully treated by

Trade **"SOLUROL"** Mark

(THYMINIC ACID).

"SOLUROL" (Thyminic Acid) has been given with much success in those cases of Gout, Rheumatism and allied disorders in which there occurs a deposition in the tissues of biurates.

Under normal conditions, Uric Acid and Thyminic Acid are formed in the body at the same time. They combine to form a soluble compound, which is eliminated by the kidneys.

If Thyminic Acid ("Soluro") be not produced, Uric Acid is precipitated, and varied symptoms arise. It is in these cases that "Soluro" is particularly valuable.

"Soluro" is harmless, being non-toxic and non-depressant.

"Soluro" in tablet form is administered with advantage in Gout (acute and chronic), Gravel and Obesity.

"Soluro" has proved valuable by intra-muscular injection in Neuritis, Sciatica and Lumbago.

'SOLUROL' TABLETS

4 grs. in each.

DOSE:—One or two tablets, thrice daily.

'AZOULE' 'SOLUROL'

Trade Marks

2 grs. in each; also with $\frac{1}{4}$ gr. Novocain.

Sterile Solutions ready for use.

Samples and Pamphlets giving full particulars sent on request.

ALLEN & HANBURYS Ltd., Lombard Street, LONDON

Niagara Falls, N.Y. Toronto. Buenos Aires. Durban. Sydney.

List of Territorials - Sewing in 1914-18 - was
also the Nurses Sewing from Barto
SBHMS/PB/1/21
2/2

Thomas Wallis & Co.

Nurses' Uniforms and Outfits.

CLOAKS—As supplied to the Army Nursing Reserve, 29/6.

„ Plain Circular in Navy and Black Cloth, 17/9 and 19/6.

„ Full Circular Cloak with Underfronts, Hood Lined Silk, 21/6.

„ Ulster with detachable Cape, in Navy and Black Cloth, 31/6.

„ Surgical Cape in Black Cloth, lined throughout with Scarlet Flannel, from 11/6.

COSTUMES in Washing Regatta, from 16/6 complete.

„ in Zephyr, as supplied to the Army Nursing Reserve, 18/6 complete.

„ in Navy or Black all Wool Serge, or Grey Beige, from 25/6.

BONNETS—Trimmed Velvet, with Ribbon Strings, 0/6, 6/11, 7/11, and 9/6.

„ "Sister Dora" Cap, 9½d., including strings, 1/-.

APRONS, 2/3 and 2/11½.

NURSES' SLEEVES, 14-inch, 1/0½ per pair.

COLLARS, 3/9 and 5/6 per doz.

CUFFS, 6½d. and 7½d. per pair.

WARD SHOES in Glacé Kid, 5/6, or Levant Leather, 6/9.

*Illustrated Catalogue and Patterns
Post Free.*

HOSPITAL FURNITURE.

Experienced and Trustworthy
Contractors for

Hospital Furnishing

OF ALL KINDS.

Contractors also for all kinds of Hospital Requisites in the way of Linen, Beds, Bedding, and Nurses' Uniforms—in these we are Specialists, with many years' experience.

Thomas Wallis & Co. Ltd.

Drapers, Outfitters, House Furnishers, etc.

HOLBORN CIRCUS, E.C.

J. & A. CHURCHILL'S NEW BOOKS.

HALE WHITE'S MATERIA MEDICA. 14th ed. 6s. 6d. net. } Based
LUCAS'S BOOK OF PRESCRIPTIONS. 10th ed. 6s. 6d. net. } upon
LUCAS & STEVENS' BOOK OF PHARMACOPEIAS. 7s. 6d. net. } New B.P.

FRAZER'S ANATOMY OF THE HUMAN SKELETON. 219 Figures. 21s. net.
MORRIS'S TREATISE ON ANATOMY. 5th ed. 1182 Illustrations. 30s. net.
LATHAM & TORREN'S MEDICAL DIAGNOSIS. 100 Illustrations. 15s. net.
TAYLOR'S OPERATIVE SURGERY. 300 Illustrations. 30s. net.
POLLARD & DAVIES' MINOR SURGERY. 15th ed. 239 Figures. 7s. 6d. n.
BERKELEY & BONNEY'S OBSTETRIC PRACTICE. 2nd Ed. 302 Figs. 24s. n.
SEQUEIRA'S DISEASES OF THE SKIN. 2nd Ed. 48 Pls. 230 Text-figs. 25s. n.
BENNETT'S MEDICAL & PHARMACEUTICAL LATIN. 2nd ed. 6s. 6d. net.
TOMES' DENTAL ANATOMY. 7th ed. 299 Illustrations. 18s. net.

London: 7, Great Marlborough Street.

Works by Dr. SAMUEL WEST,

Consulting Physician to St. Bartholomew's Hospital,
 Consulting Physician to the Royal Free Hospital, etc.

DISEASES OF THE ORGANS OF RESPIRATION.

Large 8vo, 2 vols. Price 36s.

London: GRIFFIN.

HOW TO EXAMINE THE CHEST.

A HANDBOOK FOR STUDENTS. Third Edition. Price 5s.
 London: CHURCHILL.

GRANULAR KIDNEY AND PHYSIOLOGICAL ALBUMINURIA.

Demj 8vo. Price 7s. 6d.

London: GLAISHER.

Skin Diseases in General Practice.

BY
HALDIN DAVIS, F.R.C.S., M.R.C.P.,

Chief Assistant in the Skin Department, St. Bartholomew's Hospital.

Published by Messrs. Henry Frowde and Hodder & Stoughton. Price 15/- net.

"A manual which should find much favour with the general practitioner."
 —The Lancet.

**Convent College ::
Enfield, Middlesex.**

Select
 Boarding School
 for a limited number
 of Young Ladies.

Beautifully situated. Extensive grounds; tennis court. Advantages
 in languages. Preparation for Matriculation, Oxford Locals, L.L.A.
 Intermediate London University, Music, and Art Examinations.

Prospectus and particulars from LADY SUPERIOR.

EVANS & WITT,

TELEPHONE:
 6723 CENTRAL.

Discount Booksellers, Stationers, Bookbinders, & Printers,
 58, LONG LANE, CITY,
 And at 57, WEST SMITHFIELD, E.C.

A GOOD SELECTION OF NOTE-BOOKS.

5 Quires Note Paper, Printed Address, 2/-
 50 Cards with Name and Address, 1/3.

WORKS BY
W. McADAM ECCLES, M.S., F.R.C.S.,

Surgeon to St. Bartholomew's Hospital, etc.

HERNIA.

THIRD EDITION. PRICE 7s. 6d. NET.

Illustrated by 121 Plates and Figures.

THE
IMPERFECTLY DESCENDED TESTIS.
 EMBODYING THE JACKSONIAN PRIZE ESSAY.

Illustrated by 44 Plates. PRICE 7s. 6d.

London: BAILLIÈRE, TINDALL & COX.

NEW AND ENLARGED EDITION OF

MARSH'S

**Diseases of the Joints
and Spine.**

REVISED BY

HOWARD MARSH and **GORDON WATSON**
 Consulting Surgeon to St. Bartholomew's Hospital. Assistant Surgeon to St. Bartholomew's Hospital.

With 4 Coloured Plates, 8 Black and White Plates,
 and 110 Illustrations in the Text.

CASSELL & CO. Price 10/6.

VALE OF CLWYD SANATORIUM.

This Sanatorium is established for the treatment of Phthisis, as carried out by Dr. OTTO WALTHER, of Nordrach. It is situated at a height of 450 feet above the sea, on the sheltered aspect of mountains rising to over 1800 feet, and possesses many miles of graduated uphill walks, similar to those at Nordrach. Electric lighting.

The Physician is fully conversant with Dr. WALTHER'S treatment, having been a patient at Nordrach.

For particulars apply to GEORGE A. CRACE-CALVERT, M.B., M.R.C.S., L.R.C.P., Llanbedr Hall, Ruthin, N. Wales.

ST. BARTHOLOMEW'S HOSPITAL.**CERTIFICATED NURSES**

TRAINED AT THIS HOSPITAL
 CAN BE HAD IMMEDIATELY.

Apply SISTER IN CHARGE,

TRAINED NURSES' INSTITUTION.

Telegraphic Address:
 "KAHERE, LONDON."

Telephone:
 581, HOLBORN.

FOUNDED IN 1892.

**THE
CLINICAL
JOURNAL**

ILLUSTRATED
 WEEKLY

3^D

23 BARTHOLOMEW CLOSE, LONDON, E.C.

**THE
FUNDUS
OCULI,
A
POCKET ATLAS
AND TEXT-BOOK**

BY
G. LINDSAY JOHNSON, M.D.
 AND
A. W. HEAD.

PRINTED AND PUBLISHED BY
 ADLARD & SON, BARTHOLOMEW CLOSE, E.C.

45 Text Illustrations and 55 Coloured Pictures DRAWN FROM LIFE

'ENZYMOL'

A Surgical Solvent and Antiseptic.

An Extract of the Gastric Gland obtained by Direct Solution, especially prepared for External Application.

'Enzymol' dissolves all septic matter, corrects offensive odours, and imparts a healthy stimulus to the affected surface.

'Enzymol' is potent and entirely painless as a solvent, and is without action upon the normal tissue. It may be freely applied to all surfaces and cavities from which it is desired to remove dead tissue, pus, etc. 'Enzymol' will be found successful as a solvent in affections of the aural and nasal cavities, for dissolving coagula in the bladder, etc.

'Enzymol' is now being used on soldiers whose wounds are difficult to heal, especially those men who have foul-smelling wounds.

'Enzymol,' simply by physiological action, converts morbid tissue and pus into a soluble form, which is thus readily removed by the ordinary methods of irrigation or washing.

'ENZYMOL' is used in considerable quantities at St. Bartholomew's Hospital
 and at several of the Military Hospitals.

Supplied to the Medical Profession in 4-oz. bottles at 2/2 each.

Manufactured by
Fairchild Bros. & Foster,
 NEW YORK, & 64-65, Holborn Viaduct, London, E.C.

Agents for Europe, Asia, Africa, and Australasia:
Burroughs Wellcome & Co.,
 LONDON, SYDNEY, CAPE TOWN.

Benger's Food is unique in combining the two natural digestive principles Amylopsin and Trypsin, in such a manner that these become active while the Food is being prepared with fresh new milk.

The Food is simply allowed to stand 15 or more minutes; the digestive action is carried to any extent the physician may prescribe and is stopped by boiling up.

Benger's is pre-eminently the Food for conditions of digestive debility. Invalids and aged persons seldom tire of it.

From an F.R.C.S.—

"I find it very palatable and an excellent soporific when taken just before retiring. Although I have been taking it for some months now, I am in no way 'turning' at it."

BENGER'S
FOOD

FOR INFANTS, INVALIDS AND THE AGED, is quite distinct from any other food obtainable.

A physician's sample with full particulars will be sent post free, upon application, to any member of the Medical Profession.

Benger's Food is obtainable throughout the World of Chemists, etc.

BENGER'S FOOD Ltd., Otter Works, MANCHESTER, Eng.
Branch Offices: NEW YORK (U.S.A.) 92, William St. SYDNEY (N.S.W.) 117, Pitt St.
Canadian Agents—National Drug & Chemical Co., Ltd., 24, St. Gabriel St., MONTREAL,
and branches throughout Canada.

ST. BARTHOLOMEW'S HOSPITAL,
LONDON, E.C.;
May, 1915.

DEAR SIR,

I write on behalf of the Students' Union to draw your attention to the excellent work done by its JOURNAL in enabling St. Bartholomew's men to keep in touch with their old Hospital and School. The accounts of their constant progress can scarcely have failed to interest you, and the Clinical Lectures and other articles dealing with the advances made in the diagnosis and treatment of disease have no doubt often been useful.

In the January issue a list of those who have joined any branch of His Majesty's Forces was published as a Supplement, but so many more have since offered themselves that it was felt desirable to bring out a second up-to-date edition, and a copy of this is enclosed in the Special War Number which is now sent you.

If you are not yet a Subscriber may I hope that you will now become one, and so, by having the JOURNAL sent you month by month, help the Union in its endeavour to make it a link between Past and Present.

The rates, which include postage, are as follows:

Five Shillings for One Year.
One Guinea for Five Years.
Three Guineas for Life.

Cheques and postal orders should be made payable to the St. Bartholomew's Hospital Journal Account, and be sent to—

THE MANAGER OF THE JOURNAL,
ST. BARTHOLOMEW'S HOSPITAL, E.C.

I am, yours faithfully,

H. J. WARING,
President of the Students' Union.

1915.

Dear Sir,

I enclose

value

a Subscription to the 'St. Bartholomew's Hospital Journal' for _____ years commencing

Name

Address

Qualifications

Yours faithfully,

To
The Manager of the Journal,
St. Bartholomew's Hospital,
E.C.
May, 1915.

S.
29.
CS

spend
arma-

orders

icom-

n.

h Edi-
NEST
Black

c.

2.C.P.,
Lond.,
With

F.I.C.
ual of
Illus.

R.C.P.
Plates.

CASSELL'S MEDICAL BOOKS.

Entirely New Edition.

Ready April 29.

Materia Medica and Therapeutics

By **J. MITCHELL BRUCE**, M.A., LL.D.(Hon.)Aberd, M.D.Lond., F.R.C.P.,

AND

WALTER J. DILLING, M.B., Ch.B.Aberd.

For the Tenth Edition this work has been almost entirely re-written, so that it might correspond with the New Edition of the British Pharmacopœia and embody the many advances made in Pharmacology and Therapeutics during recent years.

The arrangement of the Vegetable and Animal Materia Medica on the lines of the Natural Orders of Organic Drugs has been abandoned in favour of a Pharmacological Order.

An entirely new section on Practical Pharmacy has been introduced, and the subjects of Incompatibility and Solubility have been treated in greater detail.

646 Pages. Fcap. 8vo. Illustrated. **6/6** net. Prospectus Post Free on application.

Elements of Surgical Diagnosis.

By **Sir ALFRED PEARCE GOULD**, K.C.V.O., M.S.Lond., F.R.C.S.Eng., Surgeon to the Middlesex Hospital. Fourth Edition. Revised and Enlarged by the Author, with the assistance of **ERIC PEARCE GOULD**, M.A., M.Ch.Oxon., F.R.C.S.Eng., Radcliffe Travelling Fellow. With 10 Radiographic Plates, and Illustrations in the Text. **10s. 6d.** net.

Surgical Applied Anatomy.

By **Sir FREDERICK TREVES**, Bart. G.C.V.O., C.B., LL.D., F.R.C.S.Eng. Sixth Edition. Revised by **Professor ARTHUR KEITH**, F.R.S., M.D., LL.D. Aberd., F.R.C.S.Eng. With 137 Illustrations, including 58 in Colour. **9s.**

Tropical Diseases.

By **Sir PATRICK MANSON**, G.C.M.G., M.D., LL.D.Aberd., F.R.C.P.Lond., F.R.S. Fifth Edition, Enlarged and Revised. With 10 Colour Plates and 239 Illustrations in the Text. **12s. 6d.** net.

Hygiene and Public Health.

By **Sir ARTHUR WHITELEGGE**, K.C.B., M.D., B.Sc., F.R.C.P.Lond., D.P.H.Camb., and **Sir GEORGE NEWMAN**, M.D., D.P.H., F.R.S.E. Twelfth Edition, Revised and Enlarged. Illustrated. **8s. 6d.** net.

Diseases of the Skin.

By **Sir MALCOLM MORRIS**, K.C.V.O. Fifth Edition. Revised by the Author, assisted by **S. ERNEST DORE**, M.D., M.R.C.P. With 10 Colour and 67 Black and White Plates. **10s. 6d.**

A Manual of Chemistry :

Theoretical and Practical, Inorganic and Organic. Adapted to the requirements of Students of Medicine.

By **ARTHUR P. LUFF**, M.D., B.Sc.Lond., F.R.C.P., F.I.C., and **HUGH C. H. CANDY**, B.A., B.Sc.Lond., F.I.C. Fifth Edition. Revised and Enlarged. With 43 Illustrations. **8s. 6d.** net.

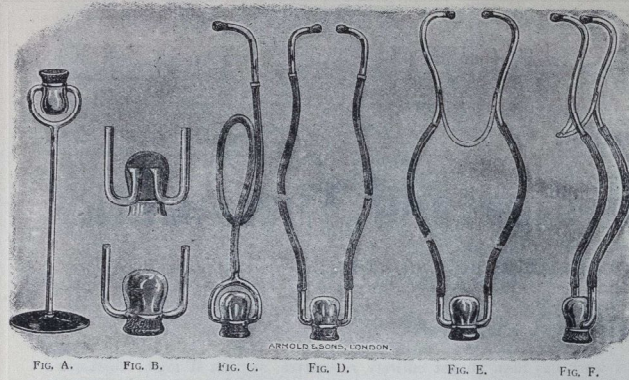
A Manual of Physics for Medical Students.

By **HUGH C. H. CANDY**, B.A., B.Sc.Lond., F.I.C. (A Companion Volume to Luff and Candy's *Manual of Chemistry*.) With Colour Frontispiece and 262 Illustrations in the Text. **6s.** net.

Diseases of the Stomach.

By **S. H. HABERSHON**, M.A., M.D.Cantab., F.R.C.P. Lond. With 8 Colour and 11 Black and White Plates. **9s.** net.

CASSELL & CO., LTD., LA BELLE SAUVAGE, LONDON, E.C.



THE NEW PATENT "PHONOPHORE" STETHOSCOPES.

The New Patent "Phonophore" Stethoscope		
	(Fig. A.)	6/6
Ditto	Chest-piece (Fig. B.)	5/6
Ditto	Single flexible (Fig. C.)	7/6
Ditto	Double flexible (Fig. D.)	10/6
Ditto	Binaural (Fig. E.)	12/6
Ditto	Binaural folding (Fig. F.)	13/6

COPIES OF UNSOLICITED TESTIMONIALS.

DEAR SIRS.—"I find that most certainly the chest sounds are rendered clearer and more distinct by your 'Phonophore' than by any stethoscope I have used during over 30 years' work."—Yours, F.R.C.S.

DEAR SIRS.—"I have found your 'Phonophore' by far the best stethoscope I have ever used."—Faithfully Yours.
Extract from the "British Medical Journal," Oct. 28th, 1911.—"Some years ago Messrs. Arnold & Sons, of Giltspur Street, E.C., brought out a Stethoscope which they named the 'Phonophore'. Its construction secured a considerably increased volume of sound, and the appliance gained favour among those dissatisfied on general grounds with ordinary stethoscopes, or whose needs, owing to some lack of aural acuity, were not adequately met thereby. Of this appliance the same firm has recently brought out a modification in which the bell-like attachment constituting the chest-piece is provided with two sound tubes instead of one. These tubes are continued upwards, the sound thus being conveyed to each ear direct from the collecting chamber. Each ear, therefore, receives the same amount of sound, although the same amount of sound may not be perceived if there is any difference in the hearing power of the two ears. The gross volume of sound is also greater than supplied by the original 'Phonophore'. This modification of the 'Phonophore' is worth examination by anyone interested in stethoscopes."

ARNOLD & SONS, Surgical Instrument Manufacturers, GILTSPUR STREET, LONDON, E.C.

"The Rendezvous"

London's Renowned Restaurant

(a la Carte Service)

Dean Street, Shaftesbury Avenue, W.

The Cooking is Perfect.

The Prices are Moderate.

The Service is Quick but Quiet.

You are in Bohemia; at Home; and in Society.

It is in the heart of Theatreland.

Telephone: CITY 134.

PETER GALLINA.

St. Bartholomew's Hospital



Journal.

"Æquam memento rebus in arduis
Servare mentem."
—Horace, Book ii, Ode iii.

VOL. XXII.—No. 8.]

MAY 1ST, 1915.

[PRICE SIXPENCE.]

CALENDAR.

Mon., May	3.—	Examination for M.B., B.S. (London) begins.
Tues., "	4.—	Dr. Drysdale and Mr. Rawling on duty.
Wed., "	5.—	Primary F.R.C.S. Examination begins. Clinical Lecture (Surgery). Mr. D'Arcy Power.
Fri., "	7.—	Dr. Tooth and Mr. D'Arcy Power on duty. Clinical Lecture (Medicine). Dr. Morley Fletcher.
Tues., "	11.—	Dr. Garrod and Mr. Waring on duty.
Wed., "	12.—	Clinical Lecture (Surgery). Mr. Waring.
Thurs., "	13.—	Final F.R.C.S. Examination begins.
Fri., "	14.—	Dr. Calvert and Mr. McAdam Eccles on duty. Clinical Lecture (Medicine). Dr. Morley Fletcher.
Mon., "	17.—	Examination for Matthews Duncan medal.
Tues., "	18.—	Dr. Morley Fletcher and Mr. Bailey on duty.
Wed., "	19.—	Clinical Lecture (Surgery). Mr. Waring.
Fri., "	21.—	Oxford Easter Term ends. Dr. Drysdale and Mr. Rawling on duty. Clinical Lecture (Medicine). Dr. Garrod.
Sat., "	22.—	Oxford Trinity Term begins.
Sun., "	23.—	Whit Sunday.
Tues., "	25.—	Dr. Tooth and Mr. D'Arcy Power on duty.
Wed., "	26.—	Examination for Brackenbury Medical Scholarship begins. Clinical Lecture (Surgery). Mr. McAdam Eccles.
Thurs., "	27.—	Examination for Brackenbury Surgical Scholarship begins.
Fri., "	28.—	Dr. Garrod and Mr. Waring on duty. Clinical Lecture (Medicine). Dr. Calvert.
Sat., "	29.—	Sir G. Burrows Prize. Skynner Prize.
Tues., June	1.—	Dr. Calvert and Mr. McAdam Eccles on duty.
Wed., "	2.—	Clinical Lecture (Surgery). Mr. McAdam Eccles.
Fri., "	4.—	Dr. Morley Fletcher and Mr. Bailey on duty. Clinical Lecture (Medicine). Dr. Drysdale.

EDITORIAL NOTES.



OUR Special Number of last September dealt chiefly with the War, more especially from the point of view of its medical organization.

In that issue we dwelt upon the fact that service would be required of all in one form or another, but we urged everyone, and more especially medical students, to remember that if we all sprang to attention and marched to the rolling of the drums, there would be no one left to do the daily round, the necessary common task.

This warning has proved itself to be fully justified, for medical students all over the country flocked to the front as combatants, orderlies, stretcher-bearers, anything and everything.

The Government, however, has been alive to the situation thus brought about, and we are glad to say that it has officially urged most of these students to go back to the routine life and get qualified as quickly as possible.

* * *

We do not know precisely how the War has affected the number of students entering the medical profession as a whole; in this Hospital, however, there has not been any very great change. The number of full entries to St. Bartholomew's in October, 1914, was 65, as compared with 53 in October, 1913, and 73 in October, 1912. The drop from 73 to 53 was undoubtedly due to uncertainties regarding the profession arising from the Insurance Act, and had it not been for the War there is no doubt that the entry in October, 1914, would have been considerably higher than 65. Since October the entries of students to the full course have kept much about the same level as in the corresponding period last year.

* * *

The following awards of Scholarships and Prizes have been made recently:—Kirkes Scholarship and Gold Medal, P. H. Wells. Junior Scholarship in Anatomy and