Volume 1

ABDOMINAL OPERATIONS

sixth edition

RODNEY MAINGOT

and
British and American Contributors

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CONTRIBUTORS

JOHN ALEXANDER-WILLIAMS, M.D., Ch.M., F.R.C.S. (Eng.)

Consultant Surgeon, United Birmingham Hospital; External Scientific Staff, Medical Research Council; Hunterian Professor, Royal College of Surgeons of England 1963 and 1972; Fellow of the Royal Society of Medicine; Association of Surgeons of Great Britain and Ireland

GARNET WALTER AULT, M.D., F.A.C.S.

Diplomate, American Board of Surgery (Proctology); Diplomate, American Board Colon and Rectal Surgery; Honorary Member, Royal Society of Medicine; Surgeon, The Clinic for Intestinal and Rectal Surgery, Washington, D.C.; Clinical Professor of Surgery, Georgetown University School of Medicine; Chairman, Department of Proctology, Washington Hospital Center; Consultant, Walter Reed Army Hospital, Washington, D.C.

J. PEYTON BARNES, M.D., F.A.C.S

Diplomate of American Board of Surgery; Clinical Professor of Surgery, Baylor University College of Medicine; Chief, Department of Surgery, St. Joseph Hospital, Houston, Texas

B. MARDEN BLACK, M.D., M.D. (Surgery), F.A.C.S.

Consultant, Department of Surgery, Mayo Clinic and Mayo Foundation; Professor of Surgery, Mayo Graduate School of Medicine, University of Minnesota, Rochester, Minnesota

LESLIE HAROLD BLUMGART, B.D.S., M.D., F.R.C.S. (Eng.)

St. Mungo Professor of Surgery, University of Glasgow; Honorary consultant Surgeon, Glasgow Royal Infirmary; Moynihan Fellow of the Association of Surgeons of Great Britain and Ireland, 1972; Former Senior Lecturer and Deputy Director, University Department of Surgery, Welsh National School of Medicine, and Honorary Consultant Surgeon, Cardiff Royal Infirmary and the University Hospital of Wales

SCOTT J. BOLEY, M.D.

Director of Pediatric Surgery, Montefiore Hospital and Medical Center; Professor of Surgery, Albert Einstein College of Medicine, Bronx, New York

JOHN BORRIE, M.B.E., E.D., Ch.M., F.R.C.S. (Eng.), F.R.A.C.S.

Surgeon in Charge, Southern Regional Thoracic Surgical Unit, Dunedin and Wakari Hospitals, Dunedin; Associate Professor of Thoracic Surgery, University of Otago Medical School, New Zealand; Formerly Hunterian Professor and Jacksonian Prizeman, Royal College of Surgeons of England; Assistant Thoracic Surgeon, Newcastle-upon-Tyne, England; Thoracic Surgeon, Green Lane Hospital, Auckland, New Zealand; New Zealand; New Zealand; New Zealand Puffield Surgical Fellow

IAN ARTHUR DENNIS BOUCHIER, M.D., F.R.C.P.

Professor, Department of Medicine, Dundee University, Dundee, Scotland; Formerly, Reader in Medicine, The University of London; Honorary Consultant Physician, The Royal Free Hospital, London, England

THE RT. HON. LORD BROCK, M.S., F.R.C.S. (Eng.)

Director, Department of Surgical Sciences, Royal Gollege of Surgeons of England; Consultant Surgeon Emeritus, Guy's Hospital and The Brompton Hospital, London; President of the Royal College of Surgeons, 1963-1966

ALEXANDER CAMERON, M. B., Ch.B., F.R.C.S. (Edin.), F.R.C.S. (Eng.)

Senior Lecturer and Deputy Director, Department of Surgical Studies, The Middlesex Hospital, London, England

WARREN H. COLE, M.D., F.A.C.S. (Hon.), F.R.C.S. (Eng.), F.R.C.S. (Hon. Edin.)

Professor Emeritus, Department of Surgery, University of Illinois, College of Medicine, Chicago, Illinois

SIR ZACHARY COPE, B.A., M.D., M.S. (London), F.R.C.S. (Eng.)

Consulting Surgeon, St. Mary's Hospital, London; The Bolingbroke Hospital, London, England

JOHN GEOFFREY SANDISON CRABBE, M.R.C.S., L.R.C.P., F.I.A.C.

Consultant Cytologist, I.C.I. Ltd.; Honorary Consultant Cytologist, Royal Free Hospital; Formerly Director, Royal Free Hospital Cytology Training Centre, London, England

ROBERT E. CROZIER, M.D.

Physician, Department of Gastroenterology, Lahey Clinic Foundation, Boston, Massachusetts; Physician, New England Baptist Hospital and New England Deaconess Hospital

ANTHONY MICHAEL DAWSON, M.D., ER.C.P.

Physician, St. Bartholomew's Hospital; King Edward VII Hospital for Officers, London, England

MICHAEL E. DE BAKEY, M.D.

President, Baylor College of Medicine; Distinguished Service Professor, Chairman, Cora and Webb Mading Department of Surgery, Baylor College of Medicine; Director, Cardiovascular Research and Training Center, Methodist Hospital, Houston, Texas

ANDREW MORE DESMOND, M.B., B.S. (London), F.R.C.S. (Eng.)

Senior Consultant-Surgeon, Surgeon-in-charge, Gastro-enterological Unit, St. James, Hospital, London, England; Formerly, Examiner and Chairman, Court of Examiners, Royal College of Surgeons of England; Examiner in Surgery, Oxford University, Oxford; External Examiner, Mastership of Surgery, Bagdad University; External Examiner, Mastership of Medicine in Surgery, Singapore University; Member of Council of the Association of Surgeons of Great Britain and Ireland; Surgical Tutor to the South West Metropolitan Regional Hospital Board; Member, Executive Committee of the Committee for Higher Surgical Training

EDWARD B. DIETHRICH, M.D.

Instructor in Surgery, Baylor University College of Medicine, Houston, Texas

LESTER R. DRAGSTEDT, Ph.D., M.D., DsC. O.H.S.

Research Professor of Surgery, Professor of Physiology, University of Florida, Gainesville, Florida

HAROLD ELLIS, M.A., D.M., M.Ch., F.R.C.S. (Eng.)

Professor of Surgery, Westminster Medical School (University of London); Member of Council and Vice-President, Clinical Section, Royal Society of Medicine, London; Fellow, Associate of Surgeons of Great Britain and Ireland; Hallett Prize, Royal College of Surgeons, 1950; Member, Surgical Research Society, British Society of Gastroenterologists

HORST S. FILTZER, M.D.

Clinical Instructor in Surgery, Harvard Medical School; Assistant Director, Department of Surgery, Cambridge Hospital, Cambridge, Massachusetts

JOHN ADRIAN FOX, M.B., B.S.,

F.R.C.S. (Eng.)

Consultant Surgeon, Edgware General Hospital, Middlesex; Honorary Consultant Surgeon, St. Andrew's Hospital, Dollis Hill, London; Fellow, Royal Society of Medicine; Member, Hunterian Society

JOHN CEDRIC GOLIGHER, Ch.M. (Edin.), F.R.C.S. (Edin. & Eng.)

Professor of Surgery, University of Leeds; Surgeon, General Infirmary, Leeds, Scotland

LIONEL GRACEY, M.A., M.Chir., F.R.C.S. (Eng.)

Consultant Surgeon to the Royal Free Hospital, Hampstead General Hospital and New End Hospital, London. Fellow of the Royal Society of Medicine and of the Association of Surgeons of Great Britain and Ireland.

CHARLES A. GRIFFITH, M.D., M.Sc., F.A.C.S.

Clinical Professor of Surgery, University of Washington, Seattle, Washington

JOHN GRIFFITHS, M.S., F.R.C.S. (Eng.)
Consultant Surgeon, St. Bartholomew's Hospital;
Consultant Surgeon, Royal Marsden Hospital and
Chester Beatty Cancer Institute, London, England

JOHN WILLIAM PETER GUMMER, M.S. (London), F.R.C.S. (Eng.)

Consultant Surgeon, Central Middlesex Hospital, London, England

GEORGE D. HADLEY, M.D., F.R.C.P. Physician, The Middlesex Hospital, London, England

RICHARD SAMPSON HANDLEY, O.B.E., F.R.C.S. (Eng.)

Senior Surgeon, The Middlesex Hospital, London; Former Chairman, Court of Examiners, Royal College of Surgeons of England; Member of Gouncil, Royal College of Surgeons of England; Honorary Secretary, Royal Society of Medicine; Former President, Section of Surgery, Rayal Society of Medicine; Former Honorary Secretary, Association of Surgeons of Great Britain and Ireland

HUGH ROXBOROUGH SWANZY - HARLEY, M.S., F.R.C.S. (Eng.)

Consultant, Cardio-Thoracic Surgeon, United Cardiff Hospitals, Welsh Hospital Board, Wales

PETER ROBERT HAWLEY, M.S., F.R.C.S. (Eng.)

Consultant Surgeon, St. Mark's Hospital, London; Senior Lecturer, University College Hospital Medical School, London, England

J. LYNWOOD HERRINGTON, JR., M.D.

Private practice of Surgery; Member, Edwards-Eve Clinic Association, Nashville, Tennessee; Associate Clinical Professor of Surgery, Vandérbilt University Hospital; Attending Surgeon, St. Thomas Hospital, Vanderbilt University Hospital, Tennessee

BASIL ISAAC HIRSCHOWITZ, B.Sc. (Witwatersand), M.D., B.Ch., M.D. (Witwatersand), M.R.C.P. (London), F.R.C.P. (Edin.) F.A.C.P.

Professor of Medicine and Physiology; Director, Division of Gastroenterology, University of Alabama School of Medicine, Birmingham, Alabama; Attending Physician, University of Alabama Hospitals and Clinics; Consultant in Gastroenterology, Birmingham Veterans Administration Hospital, Alabama

ALAN HENDERSON HUNT, D.M., M.Ch., F.R.C.S. (Deceased)

Senior Surgeon, St. Bartholomew's Hospital; Surgeon, The Royal Marsden Hospital, London, England

DAVID GERAINT JAMES, M.A., M.D. (Cantab.), F.R.C.P. (London)

Physician and Dean, Royal Northern Hospital, London; Lecturer, Department of Medicine, Royal Postgraduate Medical School; Consultant Physician, Royal Eye Hospital and St. Charles' Hospital, London; Honorary Consultant Physician to Sydney Hospital. Australia; Consultant Physician to the Royal Navy

SIR FRANCIS AVERY JONES, C.B.E., M.D. (London), Hon. M.D. (Melb.), F.R.C.P. (London)

Physician, Department of Gastroenterology, Central Middlesex Hospital, London; Consulting Gastroenterologist, St. Mark's Hospital, London, and to the Royal Navy.

PETER F. JONES, M.A., M.Ch., F.R.C.S. (Eng.), F.R.C.S.E.

Consultant Surgeon, Royal Aberdeen Hospital for Sick Children, Aberdeen General Hospitals; Honorary Reader, Surgical Paediatrics, University of Aberdeen, Scotland

S. AUSTIN JONES, M.D., F.A.C.S.

Clinical Professor of Surgery, University of California, Irvine; Clinical Professor of Surgery, University of Southern California, Los Angeles, California

GEORGE L. JORDAN, JR., B.S., M.S., M.D.

Professor of Surgery, Baylor College of Medicine, Houston, Texas; Chief of Staff, Harris County Hospital District; Senior Attending Physician, The Methodist Hospital; Consulting Staff, Veterans Administration, St. Luke's Episcopal, and Texas Children's Hospitals, Houston, Texas

SOUHEL, KANDALAFT, M.D.

Department of Surgery, St. Clare's Hospital and Health Center, New York, New York

KEITH A. KELLY, M.D., M.S. (Surgery), F.A.C.S.

Consultant, Department of Surgery, Mayo Clinic; Assistant Professor of Surgery, Mayo Medical School, University of Minnesota, Rochester, Minnesota

RAYMOND MAURICE KIRK, M.S., F.R.C.S. (Eng.)

Consultant Surgeon, Hampstead General Hospital, London Royal Free Hospital Group, Willesden General Hospital, London, England

SYLVAIN KLEINHAUS, M.D.

Assistant Professor of Surgery, Albert Einstein College of Medicine; Assistant Attending, Pediatric Surgery, Montefiore Hospital and Medical Center, New York, New York

BASILE G. KOURIAS, M.D., F.A.C.S. (Hon.)

Associate Professor, University of Athens; Surgeonin-Chief, The Red Cross Hospital, Athens, Greece; Member, Academie de Chirurgie, Paris; Honorary Member, The German Surgical Society

LOUIS KREEL, M.D., F.R.C.P., F.F.R.

Consultant Radiologist, Northwick Park Hospital; Head, Radiology, Clinical Research Centre, Northwick Park, Middlesex; Chairman, Medical Executive Committee, Northwick Park Hospital, Middlesex; Honorary Consultant Radiologist, Royal Free Hospital, London; Honorary Consultant Radiologist, St. James's Hospital, Leeds, England

KENNETH KYLE, M.D.

Department of Colon and Rectal Surgery, The Cleveland Clinic Foundation, Cleveland, Ohio

LESLIE PHILIP LEQUESNE, D.M., M.Ch., F.R.C.S. (Eng.)

Professor of Surgery, The Middlesex Hospital Medical School, London University; Surgeon, The Middlesex Hospital; President, The Surgical Research Society; Chairman, The British Journal of Surgery; Member, Court of Examiners, The Royal College of Surgeons of England; Formerly Chairman, Association of Professors of Surgery; Arris and Gale Lecturer, The Royal College of Surgeons of England

OSWALD VAUGHAN LLOYD-DAVIES,

M.S. (London), F.R.C.S. (Eng.)

Emeritus Surgeon, The Middlesex Hospital; Emeritus Surgeon, St. Mark's Hospital, London; Former President, Section of Proctology, Royal Society of Medicine, London, England

H. LOCKHART-MUMMERY, M.D., Chir., F.R.C.S. (Eng.)

Surgeon, St. Thomas's Hospital, St. Mark's Hospital, King Edward VII Hospital for Officers; Surgeon to H.M. Household; Former President, Section of Proctology, Royal Society of Medicine, London, England

JOHN L. MADDEN, M.D., F.A.C.S.

Chairman, Department of Surgery, St. Clare's Hospital and Health Center; Professor, Clinical Surgery, New York Medical College, New York City; Consulting Surgeon, Department of Surgery, Veterans Administration Hospital, Castle Point, New York

RODNEY MAINGOT, F.R.C.S. (Eng.)

Honorary Consultant Surgeon, Royal Free Hospital, Royal Waterloo Hospital, London; Southend General Hospital, Essex; Sydney Body Gold Medallist; Former Member, Council and President, Section of Surgery, Royal Society of Medicine; Editor-in-Chief, British Journal of Clinical Practice; Fellow of the Association of Surgeons of Great Britain and Ireland; Formerly Visiting Guest Professor in Surgery: Mount Sinai Hospital, Miami, Florida; University Hospital, Colombus, Ohio; Maadi Hospital, Cairo, Egypt; The American Hospital, Beirut, Lebanon, and The Royal Prince Alfred Hospital, Sydney, Australia

CHARLES VICTOR MANN, M.A., B.M., B.Ch., M.Ch., F.R.C.S. (Eng.)

Consultant Surgeon, London Hospital, and St. Mark's Hospital for Diseases of the Rectum and Colon, London; Postgraduate Dean, St. Mark's Hospital, London, England

JEFFREY ADRIAN PRIESTLEY MARSTON, M.A., D.M., M.Ch. (Oxon), F.R.C.S. (Eng.)

Surgeon, The Middlesex Hospital, and The Royal Northern Hospital; Senior Lecturer in Surgery, University of London, London, England

JAMES H. MASON, M.D.

Chief of Surgery, Department of Surgery, St. Francis Hospital, Evanston, Illinois; Clinical Professor of Surgery, Loyola University Stritch School of Medicine, Maywood, Illinois

THEODORE R. MILLER, M.D., F.A.C.S.

Attending Surgeon, Memorial Hospital for Cancer and Allied Diseases; Clinical Professor of Surgery, Cornell University Medical College; Attending Surgeon, Pack Medical Group, New York, New York

ANDREW KILLEY MONRO, M.A.,

M.D. (Cambridge), F.R.C.S. (Eng.)

Member, Court of Examiners, Royal College of Surgeons of England; Hunterian Professor, Royal College of Surgeons of England, 1946; Senior Lecturer, Royal Postgraduate Medical School, Hammersmith Hospital, London; Surgeon, Southend General Hospital, Essex, England

SIR CLIFFORD NAUNTON MORGAN, M.S., F.R.C.S., F.R.C.O.G., (Hon.) F.R.C.S.I., F.A.C.S. (Hon.)

Honorary Fellow American Surgical Association; Honorary Fellow American Proctologic Society; Commander, Star of the North, Sweden; Consulting Surgeon, St. Bartholomew's Hospital, St. Mark's Hospital, Hospital for Tropical Diseases, London; Civilian Consultant, Royal Navy and Royal Air Force; Former Vice-President, Royal College of Surgeons of England; Former President, Section of Proctology, Royal Society of Medicine, London, England

GEORGE COOPER MORRIS, JR., M.D. Associate Professor of Surgery, Baylor University College of Medicine, Houston, Texas

BASIL C. MORSON, V.R.D., M.A., D.M., F.R.C.S. (Eng.), F.R.C.Path.

Consultant Pathologist and Director, Research Department, St. Mark's Hospital; Honorary Senior Lecturer in Pathology, Royal Postgraduate Medical School, London, England

RUDOLPH G. MRAZEK, M.D., F.A.C.S.

Director of Medical Education, Academic Director of Surgery, MacNeal Memorial Hospital, Berwyn, Illinois

WILLIAM V. NICK, A.B., J.D., M.Sc., M.D., F.A.C.S.

Associate Professor of Surgery, The Ohio State University College of Medicine, Columbus, Ohio

HAROLD HOMEWOOD NIXON, M.A., M.B., B.Hir., F.R.C.S. (Eng.)

Consultant Paediatric Surgeon, Hospital for Sick Children, Great Ormond Street, Paddington Green Children's Hospital, London; Hunterian Professor; Honorary Fellow American Academy of Paediatricians

M. J. NOTARAS, F.R.C.S., F.R.C.S. (Ed.) Senior Lecturer in Surgery, University College Hospital; Consultant Surgeon, Barnet General Hospital; Honorary Consultant Surgeon, Italian Hospital, London, England

ALTON OCHSNER, M.D., LL.D. (Hon), F.A.C.S., F.R.C.S. (Hon., Eng. & Ireland)

Senior Consultant, Department of General Surgery, Ochsner Clinic and Ochsner Foundation Hospital; Emeritus Professor of Surgery, Tulane University School of Medicine, New Orleans, Louisiana

MILTON PORTER, M.D.

Professor of Clinical Surgery, Columbia-Presbyterian Medical Center, New York, New York

JAMES T. PRIESTLEY, M.D., M.S. (Exper. Surg.), Ph.D., F.A.C.S.

Emeritus Consultant, Department of Surgery, Mayo Clinic and Mayo Foundation; Emeritus Professor of Surgery, Mayo Graduate School of Medicine, University of Minnesota, Rochester, Minnesota

CHARLES BERNARD PUESTOW, B.S., M.D., M.S., Ph.D., F.A.C.S. (Deceased)

Clinical Professor of Surgery, Emeritus, University of Illinois College of Medicine; Medical Director-Director of Medical Education, Henrotin Hospital, Chicago, Illinois; Distinguished Physician, Veterans Administration, Washington, D.C.

CHARLES V. PUTNAM, M.D.

Instructor in Surgery, University of Colorado School of Medicine, Denver, Colorado

ANTHONY JOHN HARDING RAINS, M.S. (London), F.R.C.S. (Eng.)

Professor of Surgery, Charing Cross Hospital Medical School (University of London); Honorary Consultant Surgeon, Charing Cross Hospital, London, England

WILLIAM H. ReMINE, M.D., M.Sc.

(Surg.), F.A.C.S.

Consultant, Department of Surgery, Mayo Clinic and Mayo Foundation; Professor of Surgery, Mayo Medical School, Rochester, Minnesota

JOHN RICHMOND, M.D. (Edin.), F.R.C.P. (London), F.R.C.P. (Edin.)

Reader in Medicine; University of Edinburgh; Honorary Consultant Physician, Royal Infirmary of Edinburgh; Professor of Medicine, University of Sheffield, Edinburgh

GRANT V. RODKEY, M.D.

Assistant Clinical Professor of Surgery, Harvard Medical School and Associate Visiting Surgeon, Massachusetts General Hospital, Boston, Massachusetts

ROBERT JAMES RYALL, M.B., M.Ch., F.R.C.S. (Eng.)

Consultant Surgeon, Edgware General Hospital; Honorary Consultant Surgeon, St. Andrew's Hospital, and Hospital of St. John and Elizabeth, London, England'

LARRY J. SANZENBACHER, A.B., M.D.

Instructor in Surgery, The Ohio State University College of Medicine, Columbus, Ohio

SIR RONALD BODLEY SCOTT, K.C.V.O., M.A., D.M. (Oxon.), F.R.C.P. (London)

Physician to H.M. the Queen; Consulting Physician, St. Bartholomew's Hospital, and King Edward VII Hospital for Officers, London, England

CORNELIUS E. SEDGWICK, M.D.

Department of Surgery, Lahey Clinic Foundation; Surgeon-in-Chief, New England Deaconess Hospital; Assistant Clinical Professor of Surgery, Harvard Medical School, Boston, Massachusetts

R. A. SHOOTER, M. A., M.D., F.R.C.P., F.R.C.Path.

Bacteriologist, St. Bartholomew's Hospital; Professor of Bacteriology, University of London, London, England

DAVID B. L. SKEGGS, M.A., B.Ch., F.F.R., D.M.R.T.

Director of Radiotherapy, Royal Free Hospital; Honorary Consultant Radiotherapist, Royal Northern Hospital; Member of the Court of Examiners for the F.F.R. and D.M.R.T., London, England

FRANCES HAYWARD SMITH, M.D.

Gastroenterologist, Lahey Clinic Foundation, New England Baptist Hospital and New England Deaconess Hospital, Boston, Massachusetts

RODNEY SMITH, M.S., F.R.C.S. (Eng.)

Senior Surgeon and Chairman, Department of Surgery, St. George's Hospital; Hunterian Professor Arris and Gale Lecture; Jacksonian Prize Winner, Royal College of Surgeons of England; Dean, Institute of Basic Medical Sciences; Member of Council, Royal College of Surgeons of England; Former President, Harverian Society, London, England

JOHN S. SPRATT, JR., M.S.P.H., M.D., F.A.C.S.

Chief Surgeon, Ellis Fischel State Cancer Hospital; Director, Cancer Research Center, Columbia, Missouri; Professor of Surgery, University of Missouri, Columbia; Lecturer in Surgery, Washington University School of Medicine, St. Louis, Missouri

THOMAS E. STARZL, M.D., Ph.D.

Professor and Chairman, Department of Surgery, University of Colorado School of Medicine, Denver, Colorado

FRANCIS EDGAR STOCK, O.B.E., M.B., B.S. (London), F.R.C.S. (Eng.), F.A.C.S.

Principal and Vice-Chancellor of the University of Natal, Durban, South Africa; Formerly Professor of Surgery, University of Liverpool, and Consulting Surgeon, Liverpool Royal Infirmary and Royal Navy

SAMUEL LOCKINGTON STRANGE,

M.B., Ch.B., F.R.C.S. (Edin.), D.T.M.

Assistant Surgeon, Whittington Hospital, London, England

NORMAN CECIL TANNER, M.D., F.R.C.S. (Eng.), F.I.C.S. (Hon.), F.A.C.S. (Hon.), F.R.C.S.I. (Hon.)

Honorary Consultant Surgeon, Charing Cross Hospital, St. James' Hospital, London; Markham-Skerritt Prize, Bristol, 1946; Jacksonian Prize, Royal College of Surgeons of England, 1948; Grand Cross of the Patriarchal Order of St. Mark; Examiner in Surgery, Universities of Cambridge and London; Vice-Chairman and Member Editorial Committee, British Journal of Surgery; Hunterian Professor, Royal College of Surgeons of England, 1960; Member (Former President) British Society of Gastroenterology; Fellow, Royal Society of Medicine (Formerly President Clinical and Surgical Sections); Former Member, Council of the Royal College of Surgeons of England; Guest Professor, Ein Shams University, Cairo, 1954, Royal North Shore Hospital, Sydney, 1960, Universities of Saskatchewan & Alberta, 1965, and Singapore 1971; Honorary Fellow Association of Surgeons of East Africa

HENRY REYNOLDS THOMPSON, F.R.C.S. (Eng.)

Senior Surgeon, St. Mark's Hospital, London, England

IAN PELHAM TODD, M.D. (Tor.), M.S., F.R.C.S., D.C.H.

Consultant Surgeon, St. Bartholomew's Hospital, St. Mark's Hospital for Diseases of the Colon and Rectum; Civilian Consultant in Proctology to the Royal Navy; Honorary Surgeon to Royal Scottish Corporation; Examiner in Surgery, University of London; Hunterian Professor, Royal College of Surgeons of England, 1953; Arris and Gale Lecturer, 1957–58; Fellow of the Association of Surgeons of Great Britain and Ireland; Former President, Section of Proctology, Royal Society of Medicine, London; Honorary Consultant Member various foreign proctological societies

RUPERT B. TURNBULL, JR., M.D.

Head, Department of Colon and Rectal Surgery, The Cleveland Clinic Foundation, Cleveland, Ohio.

MALCOLM CHARLES VEIDENHEIMER, M.D.

Chairman, Department of General Surgery, Section on Colon and Rectal Surgery, Lahey Clinic Foundation, Lahey Clinic Division, Boston, Massachusetts; Clinical Assistant in Surgery, Harvard Medical School; Chief of Surgery, Brooks Hospital, New England Baptist Hospital

SIR CECIL WAKELEY, Bt., K.B.E., C.B., K.St. J., LL.D., F.P.R.C.S. (Eng.), F.R.S.E.

Consulting Surgeon, King's College Hospital, Royal Masonic Hospital, Belgrave Hospital for Children, and the Royal Navy, London; Formerly President of the Royal College of Surgeons of England; Editorin-Chief, British Journal of Surgery

J. GEOFFREY WALKER, M.D., M.R.C.P.

Consultant Gastroenterologist, Department of Gastroenterology, St. Mary's Hospital, London, England

KENNETH W. WARREN, M.D., F.A.C.S.

Chief Consultant in Surgery, Lahey Clinic Foundation; Surgeon-in-Chief, New England Baptist Hospital; Surgeon, New England Deaconess Hospital, Boston, Massachusetts

FRANCIS R. WATSON, Ph.D.

Chairman, Department of Biomathematics, Cancer Research Center, Columbia, Missouri; Associate Director, University of Missouri Medical Center Computer Center, Columbia, Missouri; Associate Professor, Department of Community Health & Medical Practice, University of Missouri

JOSEPH A. WEINBERG, M.Sc., M.D., F.A.C.S.

Retired Clinical Professor of Surgery, University of California at Los Angeles; Retired Chief of Surgery at the Veterans Administration Hospital, Long Beach, California

CLAUDE E. WELCH, M.D.

Clinical Professor of Surgery, Harvard Medical School; Visiting Surgeon, Massachusetts General Hospital, Boston, Massachusetts

ALAN CAMPBELL YOUNG, M.B., B.S., D.M.R.D.

Director Radiodiagnostic Department, Dean of Postgraduate Studies, St. Mark's Hospital for Diseases of the Rectum and Colon; Member of the Radiodiagnostic Department, London Clinic, London, England

ROBERT M. ZOLLINGER, B.S., M.D., F.A.C.S. (Hon.), F.R.C.S. (Eng.), (Hon.), F.R.C.S. (Edin.)

Regents Professor and Chairman, Department of Surgery, The Ohio State University College of Medicine, Columbus, Ohio

PREFACE

Owing to the great reception this book has been accorded by surgeons throughout the world and also owing to the recent advances that have been made in Abdominal Surgery since the publication of the fifth edition of Abdominal Operations in 1969, it has been necessary to bring this edition up to date, to revise the whole work thoroughly and completely, to delete a number of out-dated chapters and many old illustrations, to enlarge and to reset it entirely into new Sections, Chapters and Parts, and to design a new format.

Revision for this Sixth Edition has been so extensive that it really represents a completely new book.

To ensure that certain specialized subjects in this vast field should receive expert consideration the aid of 97 eminent contributors has been invoked, with the addition of 26 new Chapters and Parts and 604 illustrations, the majority being drawn by well known medical artists.

This work by a combined team of distinguished Anglo-American authors is intended to present a complete and explicit account of the technique of all of the approved abdominal operations as are practised today in the Teaching Hospitals, large General Hospitals, and Surgical Clinics in Great Britain and the United States.

It also deals with the choice of operations; the preoperative preparation and the postoperative care of the patient; the immediate and remote results of the various procedures described; the difficulties and dangers which sometimes arise during the conduct of operations; the consequences of altered physiology (metabolic disorders) which follow many abdominal procedures; recent progress in abdominal surgery, as well as the importance of decision in the time of emergency.

Throughout these two volumes my prime object has been to provide top priority and especial emphasis to the numerous technical steps of abdominal operations. This will be appreciated by realizing that fully 80 percent of the illustrations and contents are devoted

to the minutiae of present-day technique.

However, brief and relevant accounts have also been submitted on modern diagnostic procedures including radiological, endoscopic, biochemical and other laboratory investigations, as well as on the clinical and pathological aspects of many lesions of the abdominal viscera.

In a work of this nature dealing as it does with a large number of subjects, many of which are closely related, it is impossible to avoid a certain degree of repetition, overlapping, difference of opinion and controversy. According to Moynihan * "Controversy in surgery may often tend to be coarsening, but we cannot gainsay it has occasional advantages. It serves to challenge opinions which might be too readily accepted; to oppose reason to authority; to destroy prejudices, or to support a truth which otherwise might long pass unnoticed. . . . Controversy is the very soul of scholarship."

As all literature is personal, the contributors have been given a free hand with their individual sections. A certain latitude in style and expression is stimulating to the thought-

ful reader.

The occasional diversity of opinion expressed may be helpful by encouraging a closer study of such subjects to enable the reader to form his own conclusions. I also believe that a certain degree of repetition in order to emphasize a point in teaching, to enforce a precept, or to offer an illustration cannot well be avoided.

It is hoped that this new edition will gain even further favour and will continue to appeal, as it has done in the past 33 years, to abdominal surgeons, to chief assistants on surgical units, to surgical registrars, to resident surgical officers, to general surgeons, to

^{*} The Spleen and Some of Its Discases, John Wright & Sons Ltd., Bristol, 1921.

postgraduates studying for higher degrees in surgery and to all those who are interested in

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The illustrations constitute one of the outstanding features of this edition. Believing, as I do, in the great potentialities of good illustrations, I have introduced as many as 604 new pictures in the text, making a grand total of 1727 illustrations. The majority of the time-honoured illustrations of the previous editions have been eliminated but I have retained a few of the original, vivid, artistic and instructive pictures which were drawn by that talented artist, Miss Pauline Larivière, who was a pupil of Max Brodel, the greatest medical artist of all time.

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Rodney Maingot

25 Wimpole Street London, W1M 7AD England

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a. Anaesthetics

Lee (J. A.) & Atkinson (R. S.), A Synopsis of Anaesthesia, 7th ed., 1972; Wylie (W. D.) & Churchill-Davidson (H. C.), A Practice of Anaesthesia, 3d ed., 1972.

b. Anatomy

Cunningham's Textbook of Anatomy (Abdominal Section), Revised by G. J. Romances, 11th ed., 1971; Grant (J. C. B.), An Atlas of Anatomy, 6th ed., 1972; Gray's Anatomy (Abdomen), edited by D. V. Davies, 34th ed., 1967; Hollingshead (W. H.), Textbook of Anatomy (Abdomen and Pelvis), 2d ed., 1967; Anson (B. J.) & McVay (C. B.), Surgical Anatomy, 5th ed., 1971.

c. Physiology

Davenport (H. W.), Physiology of the Digestive Tract, 3d ed., 1971; Starling and Lovatt Evans, edited by H. Davson & M. C. Eggleton; The Principles of Human Physiology, 4th ed., 1968; Wright's Applied Physiology, Revised by C. A. Keele & F. Neil, 12th ed., 1971; Jamieson (R. A.) & Lay (A. W.), A Textbook of Surgical Physiology, 3d ed., 1972.

d. Pathology

Boyd (W.), Revised by W. Anderson, Pathology for the Surgeon, 8th ed., 1967; Illingworth (Sir Charles) & Dick (B. M.), A Textbook of Surgical Pathology, 10th ed., 1968; Muir's Textbook of Pathology, Revised by D. F. Chappell, 9th ed., 1971; Willis (R. A.), Pathology of Tumours, 5th ed., 1972.

e. Diagnosis and Laboratory Methods

Conn (H. F.) et al. Current Progress, 1970-1972; French's Index of Differential Diagnosis, by A. H. Douthwaite, 10th ed., 1972; Hunter (H.) & Bomford (R. R.), Hutchinson's Clinical Methods, 15th ed., 1968.

f. Diagnostic Radiology

Abrams (H. L.) edited by, Angiography, 2d ed., 1971; Cummack (D. H.), Gastrointestinal X-ray Diagnosis: A Descriptive Atlas, 1969; Gough (M. H.) & Gear (M. W. W.), The Plain X-ray in the Diagnsois of the Acute Abdomen, 1971; Prior (C.) & Valente (J.), Scintiography of the Pancreas, 1971; Shanks (S. C.) & Kerley (P.), edited by, A Textbook of X-ray Diagnosis by British Authors, The Abdomen, 4th ed., 1970.

g. Monographs

Ariel (I. M.) & Kazarian (K. K.), Diagnosis and Treatment of Abdominal Abscesses, 1971; Cantor (M. D.), Abdominal Trauma, 1970; Colcock (B. P.), Diverticular Diseases of the Colon (Major Problems in Clinical Surgery) Vol. II, 1971; Dowdy (G. S.), The Biliary Tract, 1968; Goligher (J. C.) et al., Ulcerative Colitis, 1968; Ladd (W. E.) & Gross (R. E.), Abdominal Surgery of Infancy and Childhood, 1941; Madding (G. F.) & Kennedy (P. A.), Trauma to the Liver, 2d ed., 1971; Jackman (R. J.) & Beahrs (O. A.), Tumours of the Large Bowel, 1968; Welch (C. E.), Polypoid Lesions of the Gastrointestinal Tract, 1964.

h. Gastroenterology

Boley (S. J.) et al. edited by, Vascular Disorders of the Intestine, 1971; Badenoch (J.) & Brooke (B.), edited by, Recent Advances in Gastroenterology, 2d ed., 1972; Cope (Sir Zachary), The Early Diagnosis of the Acute Abdomen, 13th ed., 1968; Jones (Sir Francis Avery) & Lennard-Jones (J. E.), Clinical Gastroenterology, 2d ed., 1969; Morson (B. C.) & Dawson (I. M. P.), Gastrointestinal Pathology, 1972; Smith (R.), Strictures of the Bile Ducts, in Proc. Roy. Soc. Med. 62: 138, 1969; Thompson (T. L.) & Gillespie (L. E.), edited by, Postgraduate Gastroenterology, 1966; Truclove (S. C.) & Reynell (P. C.), Diseases of the Digestive System, 2d ed., 1971.

i. Medicine

Textbook of Medicine, edited by Sir Ronald Bodley Scott, 11th ed., 1972; Cecil-Loeb Textbook of Medicine, edited by P. B. Beeson and W. McDermott, 13th ed., 1971; Davidson (Sir Stanley) & MacLeod (J.), edited by, The Principles and Practice of Medicine, 10th ed., 1971.

j. Abdominal Surgery: Abdominal Operations

Harding Rains (A. J.), Bailey & Love's A Short Practice of Surgery, 15th ed., 1971; Bailey (Hamilton) Emergency Surgery, by T. J. McNair, 9th ed., 1972; Cooper (P.), edited by, Surgery Annual Vol. III, 1971; Cooper (P.), edited by, The Craft of Surgery, 2d ed., 1971; Christopher's Textbook of Surgery, edited by Loyal Davis, 9th ed., 1969; Goligher (J. C.), Surgery of the Anus, Rectum and Colon, (in print) 3d ed., 1974; Gross (R. E.), An Atlas of Children's Surgery, 1970; Harkins (H. N.) & Nyhus (L. M.), edited by, Surgery of the Stomach and Duodenum, 1969; Madden (J. L.), Atlas of Technics in Surgery, 2d ed., 1964; Morson (B. C.), edited by, Diseases of the Colon, Rectum and Anus, 1969; Netter (F. H.), Ciba Collection of Medical Illustrations, Vol. 3, Part III; Nixon (H. H.) & O'Donnell (B.), The Essentials of Pediatric Surgery, 3d ed., 1973; Nora (P.), edited by, Operative Surgery, 1972; Patel (J.) & Leger (L.), edited by, Nouveau Traite de Technique Chirurgical, Tomes X, XI, XII, 1969; Puestow (C. B.), Surgery of the Biliary Tract, 4th ed., 1970; Rhoads et al. Surgery: Principles and Practice, 4th ed., 1970; Rob (C.) & Smith (R.), et al. edited by, Operative Surgery, 2d ed., Vols. IV and V, 1969; Schwartz (S.), Principles of Surgery, 1969; Smith (R.), edited by, Progress in Clinical Surgery, Vol. III, 1969; Surgical Clinics of North America (published quarterly), W. B. Saunders Company, 1970-1973; Taylor (S.), edited by, Recent Advances in Surgery, 7th ed., 1969; Welch (C. E.), edited by, Advances in Surgery, Vol. 4, 1970; Welch (C. E.), Surgery of the Stomach and Duodenum, 5th ed., 1972; Year Book of Surgery, 1970-1973.

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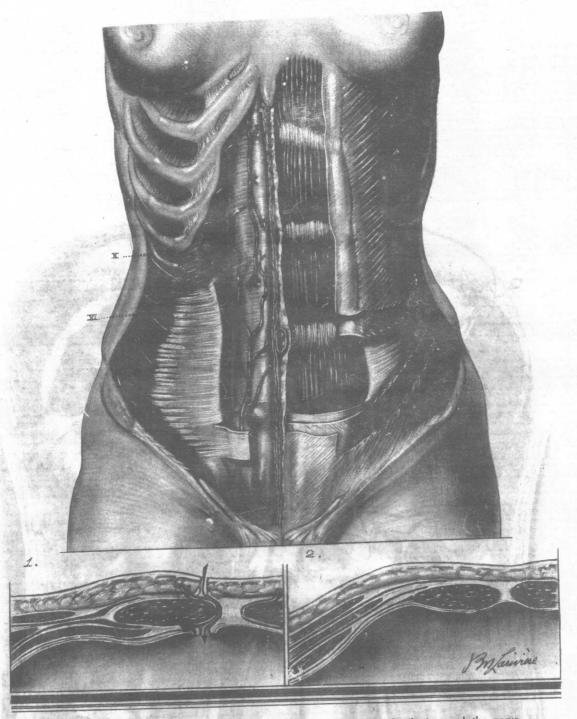
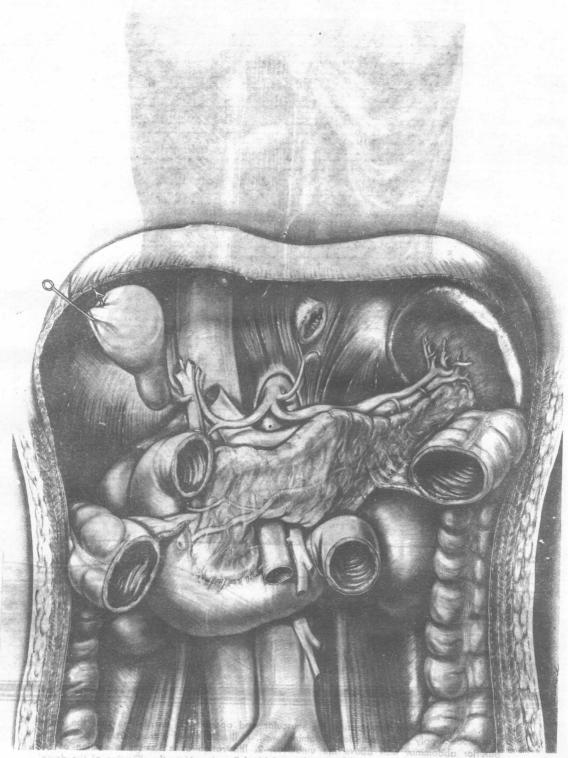


FIG. 1. Anatomical study depicting the muscular and aponeurotic distribution and the nerve and blood supply of the anterior abdominal wall. 1. Illustration of a transverse section of the anterior abdominal wall above the umbilicus. 2. Illustration of a transverse section of the anterior abdominal wall below the semilunar fold of Douglas. Note the direction of the dorsal nerves, the position of the superior and inferior epigastric arteries and of the fibrous intersections of the rectus muscle.

Frontis Figures



anterior abdominal wall below the semilurar fold of Douglas. Note the direction of the donar nerves, the position of the appropriate of the abrour intersections of the rectus muscle.

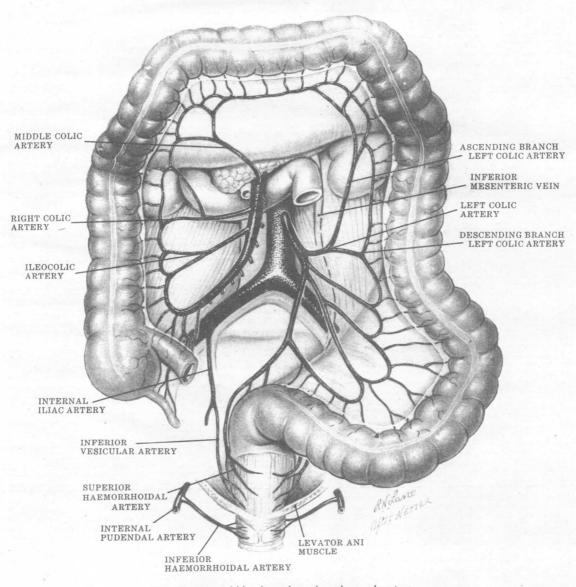


FIG. 3. Arterial blood supply to the colon and rectum.

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