Morton's Medical Bibliography

An Annotated Check-list of Texts Illustrating the History of Medicine (Garrison and Morton)

Edited by Jeremy M. Norman

FIFTH EDITION

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INTRODUCTION TO THE FIFTH EDITION

BY

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In May 1960 I had the privilege of delivering a Woodward Lecture at Yale University Medical Library. The theme suggested and adopted for the lecture was an outline of events leading to the preparation and publication of A Medical Bibliography. The lecture was published in Lee Ash's Serial Publications Containing Medical Classics, an index to citations to papers included in the Bibliography. It seemed appropriate that the introduction to this fifth edition should be prefaced by a revised and updated account of the conception, birth and development of the Bibliography to the point where it is passed on to a new compiler.

According to Garrison² it was Sir William Osler who suggested to Lieut.-Col. Walter D. McCaw, Librarian of the Surgeon General's Office, Washington (now the National Library of Medicine) the advantages of segregating the more valuable historic items in that library for safe keeping under glass. The task of drawing up a suitable list was entrusted to Fielding Hudson Garrison (1870-1935), Assistant Librarian. However, Wyndham D. Miles³ records that the list was a by-product of an exhibit, initiated by McCaw, of books, pamphlets and articles that were milestones in the development of medicine from ancient times to the twentieth century and that Garrison carried out the research necessary to identify the classics. The exhibit was completed in 1910 and Garrison then wrote a 15,000-word account of the advance of medicine as illustrated by the items. Part of this article was published in the Journal of the American Medical Association.⁴ The list itself was published in the Index-Catalogue of the Library of the Surgeon General's Office.⁵ It contains over 2,000 items.

In 1928 Garrison was offered the post of Librarian and Lecturer on the History of Medicine at the Welch Medical Library, Johns Hopkins Hospital, by William H. Welch and in 1930 he moved to Baltimore and began working full-time at Johns Hopkins. In 1933 publication began of the *Bulletin of the Institute of the History of Medicine*, with Henry E. Sigerist as Editor. In the first volume Garrison² published an expanded revision of the 1912 list and recorded that the original had been used by him "as a convenient scaffolding for a book on the history of medicine". This revised list contains over 4,000 items.

I first became interested in the history of medicine in the late 1920s while working in the Medical Sciences Library at University College, London. William Sharpey, a former Professor of Physiology in the College, had bequeathed to it his fine library which contained many medical classics, including works of Vesalius, Harvey, Aselli, Boerhaave, Haller, etc. At that time they had no significance to me although I listened with interest when my seniors had them out of the safe or stacks and expounded on them.

It was Professor Charles Singer who first-implanted in me an interest in medical history. His room, close to the main library, was lined with what may be regarded as the minor classics of medicine. From time to time he would ask me in to show me some treasure open on his desk – perhaps a book borrowed from the Royal College of Physicians of London or something he had just bought. He would explain its

importance, and if he had bought it for his own collection he might tell me how much he had paid for it.

Although I became more interested in the subject my knowledge of it grew very slowly. I began to browse through medico-historical journals and to read books in the field. I was interested to see the Bulletin of the Institute of the History of Medicine when it first appeared in 1933. Garrison's Revised Check-List appeared in the November issue of that year and immediately struck me as a valuable piece of work although I had no idea at that time how important a part it was to play in my life.

At the beginning of 1933 I had moved to the library of the Royal Society of Medicine and here I was able to see much more historical material. Some requests for bibliographical information brought my mind back more than once to the Check-List but I found it difficult to consult owing to the lack of an index. In 1938 I made a more careful examination of it. I considered making author and subject indexes to it but accepted that unless they were published with a re-issued Check-List they would be of limited use. I discussed the idea with my friend the late W. J. Bishop and we concluded that if the list could be revised, expanded and annotated to provide a chronological bibliography of the most important contributions to the literature on medicine and related subjects it could be a useful reference work for medical writers and historians, research workers, librarians and others.

I next approached Grafton and Company, which specialized in the publication of library manuals and bibliographies and also carried a large stock of secondhand books in its shop opposite the British Museum. Grafton's was owned by Miss Frank Hamel, herself a distinguished author, who seemed to spend all her life at the back of the shop and was never seen without a hat. Miss Hamel was interested and agreed to undertake publication.

Garrison had died in 1935 so the next step was to ask Claudius F. Mayer and Henry Sigerist for permission to publish material that had originally appeared in the Index-Catalogue and Bulletin. Both readily gave their consent and subsequently took a keen interest in the project. I then copied out the items in the Check-List on individual slips. I decided to rearrange the entries under the main headings used in the Universal Decimal Classification system. I discarded some items dealing with botany, zoology and entomology. One laborious task was checking each name with the *Index-Catalogue* or other source and adding dates of birth and death where necessary. At a later stage and in subsequent editions finding the dates of persons whose work I myself had added proved one of the most time-consuming parts of the work.

The whole project had to be carried out in my leisure time; for this reason it took much longer than I had anticipated. My usual routine was to take a history of some particular subject and, with Garrison's *History*, and Osler's *Bibliotheca* and other aids at hand, to go thorough it with the slips making appropriate annotations and additional slips where necessary, and putting aside for further consideration items in Garrison's list that did not appear to qualify for inclusion.

Just as I was getting deeply involved in this work, war came and threatened to put an end to it. I was at first in a reserved occupation, not liable to be called for national service, but had to spend several nights each week as an air-raid warden. For a time life continued uneventfully, but our nights were soon disturbed. We would sleep fully clad and it was common practice for neighbours to come in for the evening for mutual support. I mention this only because the circumstances were not conducive to work on the project.

The situation deteriorated further. At that time I was Librarian at St. Thomas's Hospital Medical School, not far from the Houses of Parliament, a prime target. The

Hospital was severely damaged by enemy action and it was decided to evacuate part of it, together with the Medical School, out to Surrey. The School moved to Guildford, about 30 miles south-west of London. Living accommodation was hard to find but after some weeks of discomfort I was able to rent an apartment for my family over a ladies' gown shop at the junction of the High Street and the London Road. This had three rooms, so small that with our household furniture in them there was hardly room to move. The material for the bibliography, now growing and housed in shoe boxes, stood on the dining table, to be moved underneath at meal times.

In fact, this upheaval was a blessing in disguise because during the long winter evenings there was nothing else to do but work on the bibliography. Two shops, a hundred yards from our home, were taken over by the School authorities and one of them was used to house a part of the library that we had evacuated from London. Of course this included the Index-Catalogue! There was always the danger, though now much reduced, that a bomb might put an end to the project, so I began as soon as possible to have completed entries typed out in duplicate and to store one copy in another place. This meant that the list was being built up in rather haphazard fashion.

As work proceeded it became necessary to fill gaps both in the subject coverage and concerning individuals. I found that Garrison sometimes showed some bias towards the work of his fellow-countrymen and was not always in agreement with other writers in assigning priority. This determination of priority, however, is one of the difficulties met in compiling a work such as "Garrison-Morton". Comparatively few discoveries are clear-cut. After a "new" disease entity has been described and accepted it is not difficult for the enthusiastic specialist or historian to read into an earlier writing a description of that particular condition. The same applies to "first" descriptions of anatomical structures or physiological functions. By the time I reached that stage of the proceedings I realized how essential it was that the book should be expanded into a comprehensive annotated bibliography if it was to be of real value. I believe it was ternest Starling who wrote: "Every discovery, however important and apparently epoch-making, is but the natural and inevitable outcome of a vast mass of work, involving many failures, by a host of different workers".

Fortunately at this time I was asked to visit the Hospital in London each Saturday to look after the literary needs of the doctors remaining on duty there. In fact this visit took up comparatively little time, and I was able to spend part of the day in the library of the Royal Society of Medicine. Much of its stock was still available in the basement stacks, and I began to check references and consult works. Each Saturday I took home a volume of the Annals of Medical History or some similar journal, or perhaps a history such as one of the Clio Medica series.

Another change occurred at this time (1941). The Medical School was moved from Guildford to Godalming, seven miles away, where part of the Hospital had been evacuated earlier. There was more accommodation for the Library and I was able to bring out more books and journals from London. It was also a more convenient place for my duplicate manuscript as I continued to live in Guildford and travelled to Godalming each day.

However, I was still hampered by the inaccessibility of some of the literature I needed. Holidays during these years were out of the question; visits to libraries in London had to be made during my Saturday trip there. I mention this only as an excuse for the shortcomings of the first edition of the book, which were not entirely due to incompetence but in some measure to the difficulty in consulting original material. I might have been considered selfish of me to persist with the work at such a time but now the book was becoming an obsession, besides providing an escape from the realities of the moment.

At that time and since, a number of people were kind enough to give their advice and criticism. I was particularly indebted to the late Dr. Bernard Samet, a refugee who came from Vienna in 1938. He had come over to requalify in order to practise in Britain. He spent many hours with me going over the material. He introduced me to Isidor Fischer, also from Vienna, who in 1932-33 had published a supplement to Hirsch's Biographisches Lexikon der hervorragenden Ärzteand a number of works on the history of medicine. Fischer gave me a copy of his Eigennamen in der Krankbeitsterminologie, 1931, a comprehensive bibliography of medical eponyms. This was a most useful source book.

Correspondence with friends in the U.S. A. provided additional help. As the work progressed I became more and more absorbed in it. I decided not to plan a date for completion but to go on revising, adding and checking until such time as pressure from the publishers became too great to resist. As time went by the task of reference checking at original sources became more formidable and it was necessary to enlist outside help. Much of the time during my Saturday visits to London was spent on this dull job although by now some libraries there were closed or dispersed. Slips were sent to libraries elsewhere in the country, where staff were kind enough to help, but some items could not be checked with the originals. By 1942 most of the older material belonging to the Royal Society of Medicine had been moved to a house in St. Albans. some 23 miles north of London. My friend W. J. Bishop, who was Sub-Librarian of the Society, had recently suffered the loss of his house by bombing and was living with his family in the St. Albans premises, coming to London each day to work. He was kind enough to allow me to visit his temporary home to check references, and I recall several excursions from Guildford to St. Albans, a round journey of some 110 miles that began about 7 a.m. and ended near midnight. Although the house was quite large, books were in almost every room. The bedroom of Mr. Bishop's daughter, then 12 or 13 years old, was no exception, being lined with runs of obstetrical and gynaecological journals. which may in fact have helped her education because she eventually qualified as a physician!

By the end of 1942 sufficient material had been assembled. The slips and their duplicates were numbered and one set was sent off to the publisher early in 1943. At this point I received notice to attend a medical examination preparatory to being called up into the Armed Forces. However, it was discovered that I had a minor heart irregularity that made me unsuitable for military service, otherwise it would have been a disastrous blow to the project as I would not have been able to prepare the indexes and read the proofs. Proof reading was a pleasure after the long period of preparation, and production of the indexes was a simple but tedious matter of manipulating the duplicate set of slips.

The book at last appeared later in 1943. Considering the difficulties of the time I had reason to be very grateful to the publishers for honouring their part of the contract and for the reasonably good standard of production achieved in wartime. I learned a great deal during the preparation of the bibliography, having began it with no previous experience of such work. I put away the manuscript, determined not to look at it again for a long time.

Sources for the Bibliography. Garrison's Check-List of 1933 of course provided a good foundation as it contained about 4,200 items of which I retained 3,826. I added 1,680 items, making a total of 5,506. The most important contributions to individual subjects were found by consultation of a general history of medicine and confirmation in a history of that particular subject. The latter usually helped to fill in the relevant subject section in greater detail. In the case of the ancient writers (Hippocrates, Galen, Celsus, Aretaeus, etc.) I included the first published edition of their collected works and a good modern edition if available. The best place for them was in the Collected Works

section; additionally any of their outstanding contributions to specific subjects of diseases were placed appropriately. Review articles and such publication as the *Recent Advances* series were examined for modern work.

Anyone who had contributed an important advance or who had fitted into position a small but vital piece of the puzzle qualified for inclusion. Those whose names were attached to conditions, techniques or apparatus usually deserved a place and for that reason eponymous terms were carefully examined; the eponym usually indicates priority or prominence in the field. As far as possible the first traceable description of a disease was found and included. Some early accounts, although not first, were so well written, with such complete detail and accurate description, that they deserved a place. Some surgical and other failures also deserved inclusion as pioneer work that led to later successful procedures. Nobel laureates were considered and work leading to their awards was included.

The Bibliotheca Osleriana, with its scholarly annotations and personal notes, was an invaluable source. The contributions to medical history of such writers as Humphry Rolleston, John Fulton and D'Arcy Power were equally valuable. Although many scholarly works on the history of special subjects have been published by British writers, a larger volume has come from the United States, where also journals on the subject have been maintained for a number of years, sometimes with the support of private individuals. (The British journal Medical Historywas begun only in 1957.) From the United States have also come reproductions of medical classics, sometimes with translations to make them even more accessible. Emerson C. Kelly's volumes of Medical Classics proved most useful to me and it is unfortunate that so few were published.

Some of the most valuable writings are those of the professional historians – Karl Sudhoff, Max Neuberger, Sigerist and Singer. The distinguished physician or surgeon who turns to the writing of medical history does not always do so with outstanding success, although there are notable exceptions – the Rollestons, Fulton, Guthrie, Allbutt, for example. A successful combination has sometimes been formed between the medical man and the medical librarian, as for example Willius and Keys, Bailey and Bishop. Any publication of Garrison is worth examination; he combined the knowledge of the physician with the training of the librarian. Care had to be exercised in considering items suggested by others. A specialist who has studied a subject over a number of years is liable to attach importance to some contributions out of proportion to their real significance. In attempting to review these in their proper perspective I may have overweighted some sections and covered others inadequately.

An interesting matter for consideration is the means used to communicate new discoveries. At first it had to be through the medium of books, and generally continued so for some time after journals were established. But as the tempo of discovery quickened, more and more appeared in journals and today virtually no vital work makes its first appearance in a book. The great majority of classic papers appearing in serials were published in important journals, comparatively few in unimportant or obscure journals, and very few indeed in journals of such obscurity that their contents tended to be overlooked – one thinks of Jánsky's work on blood groups and Mendel's paper on heredity. In this connexion Lee Ash's analysis' has proved most interesting and revealing.

In 19461 joined the staff of the British Medical Journal. By 1949 the first edition of Garrison-Morton was sold out, having had a kinder reception than I could have expected. In the meantime it had made me a number of pen friends who were sending corrections and suggestions. In 1950 I began work on a second edition. Some good histories had appeared in the meantime. The Wellcome Historical Medical Library and other sources were again available. I had the opportunity to expand sections where

necessary and considerably enlarged the sections on histories of medicine. The second edition appeared in 1954, containing 6,808 entries. It was reprinted in 1961 under the imprint of Andre Deutsch (who had by then taken over from Grafton responsibility for publication). It was again reprinted, with some revision, in 1965. Meanwhile in 1959 I had become Librarian at the National Institute for Medical Research, the principal research establishment of the Medical Research Council.

When the third edition was in preparation I would have liked to have taken the opportunity to alter the subject arrangement to cope with the changing face of medicine but this would have made a change of numbering necessary and I felt unable to do this because librarians and booksellers had taken to citing "Garrison-Morton" numbers in their catalogues. Instead, the numbering used in the second edition was retained, new entries were accommodated by the use of decimal points, and numbers for deleted items were not used for new works except in the case of new histories of medicine that replaced outdated works. The third edition of the bibliography appeared in 1970, the centenary year of Garrison's birth, and contained 7,534 entries.

Subsequent to the appearance of the third edition the Gower Publishing Company Limited took over responsibility for the publication of the Grafton series. The fourth edition of the *Bibliography* appeared in 1983 and contained 7,830 entries. It was extremely well produced by Gower and their printers.

During the many years I have been associated with "Garrison-Morton" I have received advice and help from many people, too numerous to mention here; the names of some are recorded in the introductions to the four editions. I would, however, record my indebtedness to the Wellcome Trust, which provided financial help towards the cost of preparing the last edition. A number of libraries, particularly those of the Wellcome Institute for the History of Medicine and the Royal Society of Medicine, have played an essential part in the task of keeping the book up to date. Most helpful of all has been my wife, who bore with patience my long absences from home during the difficult years of the war and who gave many hours to the tedious work of indexing and other routine tasks.

In conclusion I would like to refer to the oration delivered by Sir Humphry Rolleston, Emeritus Regius Professor of Physic in the University of Cambridge, during the centennial celebration of the Army Medical Library (as it then was) in Washington in 1936. After outlining the development of the Library and paying a tribute to librarians in general, Sir Humphry concluded:

The number of medical men who have been whole-time librarians of medical libraries is small; but in the United States what may have been lacking in quantity had been more than made good by quality. To three great bibliographer-librarians of the Army Medical Library tribute is justly due – Billings, Fletcher, and Garrison; for like the history of the world, that of this great library is the biography of its great men.

I personally am especially indebted to Garrison, whose pioneer work on the Check-List provided me with a hobby and an anchor for fifty years. I am confident that in the expert and enthusiastic hands of Jeremy Norman and his colleagues the *Medical Bibliography* is assured of a long and useful life. I wish him all success.

- (1) Ash, L. Serial Publications Containing Medical Classics. An Index to Citations in Garrison-Morton. Compiled by Lee Ash, New Haven, The Antiquarium, 1961 (Second edition, Bethany, C.T., The Antiquarium, 1979).
- (2) Garrison, Fielding H. A revised students' check-list of texts illustrating the history

- of medicine. Bulletin of the Institute of the History of Medicine, 1933, 1, 333-434.
- (3) Miles, Wyndham D. A History of the National Library of Medicine. Washington, D. C., U. S. Govt. Printing Office, 1982, p. 196.
- (4) Garrison, Fielding H. The historical collection of medical classics in the Library of the Surgeon General's Office. *Journal of the American Medical Association*, 1911, 56, 1785-92.
- (5) Texts illustrating the history of medicine in the Library of the Surgeon General's Office, U. S. Army. Arranged in chronological order. *Index-Catalogue of the Library of the Surgeon General's Office*. Washington, *Govt. Printing Office*, 1912, Second series, Vol. XVII, pp. 89–178 (also offprinted).
- (6) Rolleston, Sir Humphry. Medical libraries. Lancet, 1936, 2, 1286-9.

PREFACE AND ACKNOWLEDGEMENTS

BY

JEREMY M. NORMAN

Leslie T. Morton published the first edition of this book in London, 1943, having written much of it during the uncertain atmosphere of the Second World War. He based it on an outline of sources for the history of medicine published in 1933 by Fielding H. Garrison. Morton started on the project in 1938. Garrison had died in 1935 so the two never met and never actively collaborated on the book. However, Morton credited Garrison as the original compiler of the work on the title page and binding of the first edition. This caused the book to be referred to as "Garrison and Morton" or "Garrison-Morton" ever since the first edition, and has given many readers the false impression that Garrison was an active participant in its writing. Although Garrison was responsible for the original concept, with every new edition the book became more and more the work of Morton. To clarify this issue of authorship the title has now been changed from A Medical Bibliography to Morton's Medical Bibliography.

In his introduction to the present edition, Leslie Morton has detailed the history of this book and the important role it played in his life. Long before I undertook the editorship of this work it also had a significant place in my life. To no small extent I grew up with this book. I was introduced to it as a boy by my father, Haskell F. Norman, a physician and life-long collector of medical and scientific books, who still keeps well-thumbed copies of "Garrison-Morton" at home and at the office. I used the work for reference in my history of biological science courses during my undergraduate years at the University of California at Berkeley. As an antiquarian bookselling apprentice at John Howell Books in San Francisco from 1964 to 1969 I learned its value for identifying classics in the history of medicine and the life sciences. When I started my own antiquarian bookselling firm in 1971, specializing in the history of the sciences, I relied on the third edition as a key to medical and biological literature, and the beginning of many catalogue descriptions. Over the years the staff at Jeremy Norman & Co., Inc. and I have literally worn out several copies of the third and fourth editions in our research and cataloguing efforts.

Having used the work intensively for the past twenty-five years, it has given me great satisfaction to prepare the fifth edition. The project has involved revision of the work from literally the first entry all the way through to the end. Certain sections are extensively revised, expanded and updated; others are only slightly corrected. Virtually every section has been changed in some way. A few old entries have been moved to new locations. Sometimes this involved value judgements. For example certain works on the use of hypnosis in surgery have been moved from the category of Hypnosis under Psychiatry to the field of Anaesthesia. Certain old entries such as Celsus now have additional citations reflecting their significance in additional subjects. There are completely new sections for Ecology, Paleoanthropology: Human Prehistory, Teratology, Medical Education and the Medical Profession, Resuscitation, Aviation Medicine, Paleopathology, Sports Medicine, Paediatric Surgery, and Alternative Medicine: Acupuncture (Western References). The bibliography for Dentistry: Orthodontics: Oral Surgery has been sufficiently expanded as to warrant a completely new section. References to Geriatrics have been significantly expanded within the section on State Medicine: Public Health: Geriatrics: Hygiene. The sections on Anatomy and Medicine in Art, have been extensively rewritten and expanded. In all I have added 1,061 entries, revised or rewritten the annotations for 2,313, and deleted 119. From the approximately

7,800 entries in the fourth edition the work has been expanded to a total of 8,927. The indices to personal names and subjects are completely new for this edition.

For new entries the most difficult problems of selection remain those of recent scientific contributions. Few histories of medical specialties cover the period after 1950 in depth. With sufficient supporting documentation I did not hesitate to include contributions up to 1980, and I included a few after that date. Monographs which were instrumental in the compilation of new entries have been cited as secondary sources. Journal articles particularly useful for this purpose are cited in annotations. Coverage of secondary sources has been extended through 1990. When in doubt I have erred on the side of caution. The strength of this bibliography has always been and will remain in its selectivity.

Even though there are 8,927 entries in the bibliography, readers will note that the final entry is numbered 6810. By the third edition in 1970 it was felt that in spite of certain limitations in the organizational scheme of this book the "Garrison-Morton numbers" were already sufficiently entrenched in the library records of the world that to change them would create more harm than good. Therefore entries were added by the use of decimals. In the fifth edition there are as many as 43 decimal extensions after a few entries. To prevent confusion it has been necessary to renumber many of these decimal series.

The range of subjects covered by this work is so wide and its detail so great that this edition would not have been possible without the assistance of many collaborators. From the beginning Leslie Morton was most supportive of the project, turning over the addenda and corrigenda he had been accumulating since the fourth edition published in 1983. He was always available as a source of advice and guidance. Martha N. Steele, editor at Norman Publishing, supervised the input of the entire text of the fourth edition into word processing files. When this was done in late 1988 the multiplicity of type sizes and diversity of foreign language characters in the book prevented successful optical character recognition scanning. It required hundreds of hours of manual keystroking. I then accomplished the entire revision using the "revision marks" feature of the word processing program, which enabled me to keep track of all changes. The final manuscript was turned over to the publishers as word processing files.

The following people contributed to the fifth edition: J. Bruce Beckwith selected most of the books and wrote nearly all of the annotations for the new section on Teratology. Webb Dordick offered wide-ranging suggestions for new entries. M. Felix Freshwater provided citations for recent classics in Plastic and Reconstructive Surgery. W. Bruce Fye helped to update Cardiology and Cardiac Surgery, Carl W. Gottschalk helped revise the sections on the Kidney, K. Garth Huston, Jr. helped to compile the new section on Resuscitation, Margaret Kaiser at the History of Medicine Division of the National Library of Medicine provided key references for In-vitro Fertilization. Ralph H. Kellogg helped to revise the section on Respiratory Physiology. Joan Ecktenkamp Klein and her staff at the Claude Moore Health Sciences Library at the University of Virginia checked hundreds of periodical citations in the fourth edition and prepared a lengthy list of corrections which were incorporated into the fifth edition. Malcolm Jay Kottler suggested many changes and was the co-author of the revisions to the sections on Biology, and Evolution: Genetics: Molecular Biology. Arthur E. Lyons helped to update the sections on Neurology and Neurological Surgery. Nigel Phillips sent some useful revisions to entries in various subjects. Paul Potter was kind enough to read over all the entries on Greek and Roman Medicine, to revise a great many of these, and to suggest numerous useful new entries. Davida Rubin, chief cataloguer and my long-time collaborator at Jeremy Norman & Co., offered frequent advice and counsel. Many entries were revised from annotations previously published in her catalogues. Roy Rubin collaborated on the extensive revisions to Orthopaedics and the new Sports Medicine section. Ira M. Rutkow updated the section on Hernia and helped to improve all of the surgical sections with his research on the history of surgery in the United States. R. Ted Steinbock provided references for the new section on Paleopathology. George Wantz collaborated with Ira Rutkow on the hernia revisions. Richard J. Wolfe of the Francis A. Countway Library at Harvard provided invaluable assistance in enabling me to use the rich collections of that library for research and reference checking. Nancy W. Zinn of the University of California, San Francisco, offered me convenient access to the historical collections in that library. My thanks to you all.

Over the nearly fifty years of its existence this work has benefited much from the constructive suggestions of readers. Your revisions and suggestions will be much appreciated, and will be considered for the eventual sixth edition.

To Susan McNaughton, Senior Editor at Scolar Press, and her staff, my thanks for professional management of this complex production. To my father, Haskell F. Norman, thanks for introducing me to this book in the first place and for encouraging me to undertake this revision. To my wife, Jane Morrissey Norman, thanks for tolerating the seemingly endless hours of my writing this book throughout our engagement. Your cheerful co-operation, and your single requirement that I could not work on the book after dinner, made this book possible.

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