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BIOGRAPHICAL NOTE

OF

HENRY GRAY, F.R.S.

Late Lecturer on Anatomy at St. George's Hospital, London

BY

FRANK K. BOLAND, M.D.

Atlanta, Georgia

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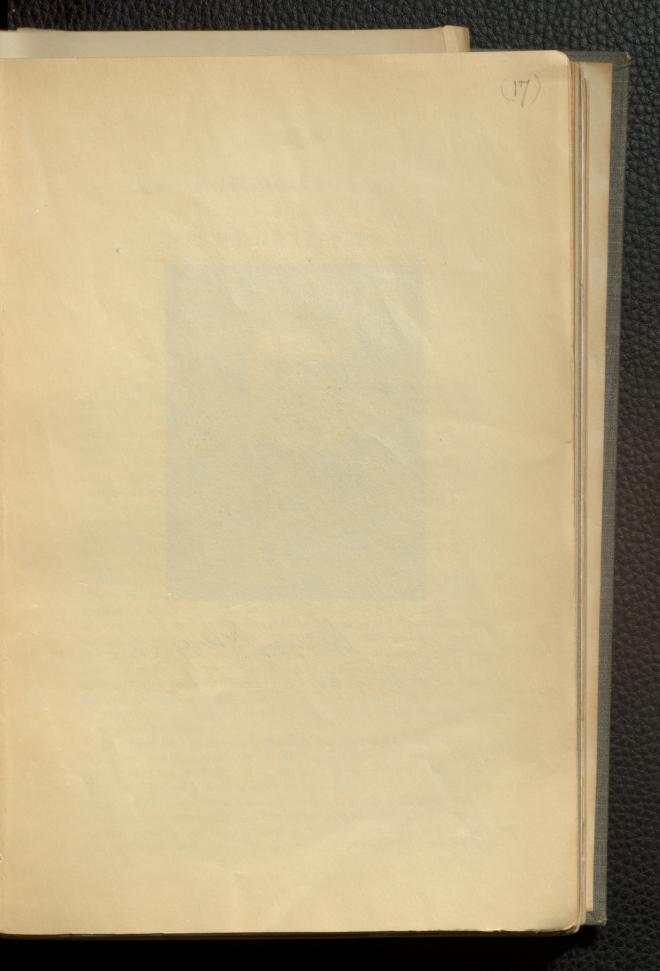
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In reading a little book entitled *The World's Anatomists*, and written in 1905 by Dr. G. W. H. Kemper, I was struck by the fact that the only mention of Henry Gray is the date of his birth and death, and the statement that he was an Englishman and the author of a text-book on anatomy. This seemed but meagre notice, indeed, of a man whom medical students and physicians for a half century have been accustomed to think of as a most distinguished anatomist; and I resolved to find out more about him if I could. Surely a man must have been very little short of a genius to have written in his time the book he did at the age of thirty-one years. Today most of us have only begun to live at thirty-one; but Gray had accomplished more at that age than the great majority of us can hope to accomplish if we live twice as long.

Although dead less than fifty years, so little information concerning Gray's life has been published that an air of mystery seems to have developed about the young man. This is accounted for in part by his early death and by the fact that he left no direct descendants to record the particulars of his career. These circumstances made the search for data an especially interesting, although difficult, task. I wished to know something of Henry Gray's life and to ascertain how much of Gray is Gray. The year 1858 was too late for one to make any great discoveries in anatomy, but a method of presenting the subject could be original, as could descriptive names and expressions.

The facts here given come through the courtesy of Mr. Robert Harrison, assistant secretary of the Royal Society, of which Gray was a member, and Mr. E. I. Spriggs, dean of the St. George's Hospital Medical School, Gray's alma mater, who secured for me the aid of Mr. C. T. Dent, the senior surgeon, to whom I am indebted more than to any one else. Mr. Dent gathered information from various records, and from interviews with Mrs. Stonhill, one of the two surviving relatives of Henry Gray, from Mr. Pickering Pick,

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one of the editors of the *Anatomy*, and from others of the few living contemporaries of the author. Without the assistance of Mr. Dent, this sketch would have lacked much of its detail.

Henry Gray was born in 1827, in London, probably, although it is not stated positively. His father was private messenger to George IV and William IV. He had one sister, who died at the age of twenty-one years, and two brothers. One brother died young; the other was Thomas William Gray, who had two daughters, one of whom is Mrs. Stonhill. This lady can give but little information about her uncle, so that where he passed his boyhood and where he received his preliminary education is not known. The date of his father's death is not on record, but young Gray does not seem to have been beset with the financial obstacles which so often handicap men of talent. His student and professional course to success was uninterrupted. There are now but few survivors who were his contemporaries at St. George's Hospital, and they appear to know nothing of his career previous to his entrance as a student.

Gray's signature appears on the pupil's book at St. George's Hospital, as entering on May 6, 1845, as a "perpetual student." This term, although probably customary, serves to illustrate the earnestness with which the eighteen-year-old youth took up his chosen work. At this time there was no medical school within the hospital precincts, but some rooms had been rented in Kinnerton Street, not far from the hospital, and it was there that the teaching in anatomy, physiology, and the other rudimentary branches was done. The lectures on medicine, surgery, and the clinical part of the curriculum were given at the hospital. Mr. Henry Charles Johnson, who was assistant surgeon to the hospital from 1843 to 1853, is believed to have been the lecturer on anatomy when Gray

matriculated.

There is no evidence to support the absurd story that Gray was a poor student and failed in some of his examinations; the facts tend to prove the very opposite. In 1848, at the age of twenty-one years, he was awarded the Triennial Prize of the Royal College of Surgeons of England for a paper on "The Origin, Connection, and Distribution of the Nerves of the Human Eye and its Appendages, Illustrated by Comparative Dissections of the Eye in the Other Vertebrate Animals." Although this prize was first instituted in 1822, it has had only eight recipients.

Young Gray assuredly possessed great talent and untiring energy. The opinion of all those who remember him agrees in describing him as a most laborious and methodical worker, and one who learned his anatomy by the tedious but invaluable plan of making his dissections himself. Judging from the results he obtained, he had no

time for anything but his work.

In June, 1850, he was appointed house surgeon to St. George's Hospital, which position he held for the customary twelve months. On June 3, 1852, he received the distinction of being elected a Fellow of the Royal Society at the remarkedly early age of twenty-five

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years. His hospital record and his activities in original research must have been highly esteemed to have secured him such honor. It has been supposed that he obtained the title largely through the influence of Sir Benjamin Brodie, who became president of the Royal Society in 1858. But Brodie himself was only elected a member of the Society in 1849, and does not appear even to have supported the candidature of Gray, although no doubt he took a warm interest at that time in so promising a pupil of the hospital. Brodie ceased to be surgeon to St. George's Hospital in 1840, but continued his active interest in the medical school, and, indeed, advanced the capital for the purchase of the lease of the buildings in Kinnerton Street.

Gray won the Astley Cooper Prize of three hundred guineas in 1853 for his dissertation on "The Structure and Use of the Spleen," a work which ranks next in importance to his Anatomy. This prize is awarded triennially, and is open to the world, students of Guy's Hospital alone being debarred from competing. Other papers which Gray had written up to this time were: In 1850, "On the Development of the Retina and Optic Nerve, and of the Membranous Labyrinth and Auditory Nerve;" in 1852, "On the Development of the Ductless Glands in the Chick;" and in 1853, "An Account of a Dissection of an Ovarian Cyst which Contained Brain."

From 1853 to 1858 he was lecturer on anatomy at St. George's Hospital. It is also recorded that he was surgical curator of the Pathological Museum during this period. No doubt his services as demonstrator of anatomy were very much in demand, for he had established a considerable reputation while a student. His time must have been given very largely to the dissecting room, and we

learn nothing of his experience in clinical work.

Gray now devoted his energies to the preparation of the work by which he is really known, the masterpiece, Anatomy, Descriptive and Surgical. Since this work is the only one of its kind which has come down to us from this time, the idea exists that no good books on the subject had been written before. Nothing could be more erroneous. Many excellent anatomies were in common use at the time Gray's made its appearance, and the new work was pitted against keen competition. Quain and Sharpey's Anatomy was probably the most popular book, although others, such as Wilson's and Winslow's, and the translations of the French writers, Cruveilhier, Bichat, and Cloquet, had strong following.

Gray undoubtedly felt that there was room for improvement in these treatises, particularly in the matter of arrangement and illustrations. He had a good conception of the principles of pedagogy, and desired, in so far as he could, to smooth for his students the hard road to anatomical knowledge. A comparison of Gray's work with that of his predecessors shows that he achieved his purpose in an admirable manner. He was not the Father of Anatomy, and it was not the presentation of any new anatomical discoveries,

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but the clearer and more systematic presentation of old ones, backed strongly by unparalleled drawings, which secured for his book its

phenomenal success.

To Dr. H. Vandyke Carter, who made the drawings, a large part of the credit for the success of the work must be given. Gray, in the preface to the first edition, which is dated August, 1858, "gratefully acknowledges the great services he has derived, in the execution of this work, from the assistance of his friend, Dr. H. V. Carter, late demonstrator of anatomy at St. George's Hospital. All the drawings from which the engravings were made were executed by him. In the majority of cases, they have been copied from, or corrected by, recent dissections, made jointly by the author and Dr. Carter." In this preface, "the author also has to thank his friend, Mr. T. Holmes, for the able assistance afforded him in correcting the proof sheets in their passage through the press." According to Mr. Dent, the assistance that Mr. Timothy Holmes afforded was considerably more than might appear from this acknowledgment. Mr. Holmes had the literary gift developed to a very high degree. Mr. Dent thinks that the literary excellence of the first edition of the anatomy was mainly due to Mr. Holmes' suggestions, but this does not detract at all from the scientific value of Gray's work as an anatomist, or from the skill shown in the arrangement of the text

The first edition was published by John W. Parker & Son in 1858, and was the only edition that Gray ever saw. The book was a success from the first. Such clear treatment of descriptive anatomy had not been known before, and there has been but small improvement, except for additions, made in it since. The introduction of the remarks on surgical anatomy was the first ever attempted by

an English author, and proved to be a popular feature.

The cuts far exceeded in number and excelled in accuracy and vividness any which had appeared previously. It is astonishing to see how many of these drawings are in the *Gray* of today. Indeed, very few of them have been discarded, wherein good judgment has been displayed, because as diagrammatic representations they would be hard to surpass, and such representations are more readily

grasped by the student than any other.

Nevertheless, the critics were by no means unanimous in their praise. The Lancet, in its review, spoke in the most favorable terms, but the Medical Times, which was then the chief rival of the Lancet, took an altogether different view, its reviewer indulging in what was then known as a "slashing criticism." Gray was accused of freely borrowing from Quain and Sharpey's Anatomy. This work was the text-book then commonly in use, and the student was likely to saturate himself with it as succeeding generations have saturated themselves with Gray's Anatomy.

There is no doubt that many passages could be cited in which the phraseology very closely resembled that of Quain and Sharpey. But we know, without question, that most of Henry Gray's work was done from actual dissections. After all, anatomical descriptions cannot vary greatly, and it is more than probable that in the passages quoted by the critics, Gray was borrowing quite unconsciously when he described the dissections that were actually before his eyes.

Parker & Son's business was bought up by Messrs. Longmans, and the second and all succeeding English editions of Gray, now numbering sixteen, were published by the latter firm. This was a potential factor in the perpetuation of the work, since this firm has long been known as one of the most enterprising of publishers.

Even prior, however, to Longmans' purchase, the firm of Blanchard & Lea, now Lea & Febiger, of Philadelphia, had arranged with Parker & Son for the publication of Gray's Anatomy in this country. As Longmans' purchase was subsequent and subject to the arrangement of Parker & Son with Lea & Blanchard and their successors, the longest connection between the book and any of its publishers enures to the credit of America. During this long period the firms of Longmans and of Lea & Blanchard and their successors have cordially coöperated for the benefit of the book and its readers. It is not too much to say that the services of many of the most distinguished anatomists of the English-speaking race on both sides of the Atlantic have been enlisted in successive revisions.

Mr. Holmes became the editor after Gray's death, and subsequently Mr. Pick, both of whom were friends of the author and lecturers on anatomy and surgeons to St. George's Hospital. The book has been doubled in size, and altered by English and American editors, but much of the original matter can be distinguished, especially in the arrangement. For example, the method of showing the relations of arteries by the ring with the adjacent structures grouped around it, so simple and yet so helpful, still remains as in

the first edition.

In 1861 Gray was a candidate for the post of assistant surgeon to St. George's Hospital, two vacancies having at that time occurred. He would certainly have been elected, but unhappily was attacked by confluent smallpox, which he contracted while looking after his nephew, who had fallen a victim to the same disease. After a very short illness, Henry Gray died on June 13, 1861, at the age of thirty-four years.

He was at work on the second edition of his book at the time of his death, and had made good progress with a work on *Tumors*. The manuscript of this cannot now be found, and no part of it was ever published. Before his death Gray had been made a Fellow of the Royal College of Surgeons by examination, and surgeon to

St. James' Infirmary.

These are the facts concerning Henry Gray's life as I have been able to gather them. They are no doubt genuine, but I trust their publication will be the means of bringing to light much more about such an inspiring character. I much regret that I could not learn more of the personal side of his character. His portrait shows the face of a man who might have been a great artist; the forehead is

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lc M high and broad, the eyes are set widely apart, and the chin is powerful. Altogether his appearance commands attention, and we know

at a glance that he was no ordinary person.

There is nothing recorded about his ability as a diagnostician or operator. The plan of his professional career, which is worthy of emulation, seems to have been first to ground himself thoroughly in the fundamental branches of anatomy and pathology, after which he would be equipped for the best possible work in the field of practical surgery.

He was about to quit the dissecting room for the operating amphitheatre when his life was brought to a sudden close. Sir Benjamin Brodie must have had this in mind when writing the

letter reproduced herewith.

Of the estimation in which Gray was held at the time of his death, this letter furnishes eloquent testimony. Sir Benjamin Brodie was Sergeant-surgeon to the Queen, and one of the most distinguished of English surgeons, and it was to him that Gray dedicated his Anatomy. Brodie was nearly blind at this time, and very seldom wrote; indeed, this letter was probably the last that he ever put on paper. The latter was addressed to Mr. Charles Hawkins, one of the governors of St. George's Hospital, and his literary executor. The lady therein referred to, whose name is illegible, must have been the one to whom Gray is said to have been engaged at the time of his lamented decease. A fac simile in my possession, which is difficult to decipher, reads as follows:

JUNE 15, 1861.

My Dear Sir: I am much grieved about poor Gray. His death, just as he was on the point of obtaining the reward of his labors, is a sad event indeed. If you have any means of doing so, I wish that you would express to Miss—how truly I sympathize with her in her affliction. Gray is a great loss to the hospital and the school. Who is there to take his place?

Yours ever truly

B. C. Brodie.

From this brief study of the life of Henry Gray, which was undertaken with the purpose of determining his true place in medical history, I am happy to conclude that he is entitled to the fame that is his. Although confessedly the glamour of renown has been augmented by clever illustrators, able editors, and progressive publishers, yet we could not fairly snatch away a single ray when we consider the part he played in the time allotted him. These factors are always instrumental in the success of such work.

Gray's genius, like that of many others, consisted of hard work and singleness of purpose; could he have lived long enough to carry this with his spirit of investigation farther into medical science, it is reasonable to believe that he would have left a name as great as

surgeon as it is as anatomist and teacher.



ANATOMY

DESCRIPTIVE AND SURGICAL

BY

HENRY GRAY, F.R.S.

Late Lecturer on Anatomy at St. George's Hospital, London

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SEVENTEENTH AMERICAN EDITION

Enlarged and Thoroughly Revised
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