

With the Author's Compliments

HARVEIAN ORATION

FOR MDCCCXXXVIII;

BEING A

TRIBUTE OF RESPECT

FOR

THE MEMORY

OF THE LATE

JAMES HAMILTON SEN. M. D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, AND PHYSICIAN TO THE
ROYAL INFIRMARY OF EDINBURGH, &c.

READ AT THE FIFTY-SIXTH ANNIVERSARY OF THE HARVEIAN
SOCIETY OF EDINBURGH, OF WHICH DR HAMILTON WAS
ONE OF THE ORIGINAL MEMBERS.

BY SIR WILLIAM NEWBIGGING, F. R. S. E.

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HARVEIAN SOCIETY, &c.

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MDCCCXXXVIII.

HARVEIAN ORATION

FOR

1838.

THE HARVEIAN SOCIETY has now existed nearly sixty years, and it is scarcely necessary to remind the Members that it was originally formed by twenty-three physicians and surgeons of this city,—not merely for the purpose of cultivating social intercourse and rational hilarity, but also for the higher object of animating and guiding the efforts of those who are entering on the adventurous field of a professional life, by conferring honorary distinctions on such as have given proof of superior accuracy of observation and ingenuity of research,—and by recording the services of the eminent men, who have laid posterity under obligations, by the advancement of medical science, or the improvement of medical practice. The illustrious man, from whom our association derives its name, is peculiarly entitled to the

fame of a benefactor of his species, because, while he enlarged the boundaries of speculative truth, he established on his splendid discoveries the most important practical results. The experiments, by which he ascertained the great fact of the circulation of the blood, were conducted on the sure principles of the inductive logic, and may be regarded as one of the finest specimens of philosophical investigation. The history of the reception which his work “*De Cordis et Sanguinis motu*” experienced from a large proportion of his contemporaries, presents a mortifying view of the effect of prejudice and envy, even on minds which have been enlightened by liberal study. It would be irksome and unprofitable to dwell on the elaborate but abortive animadversions of Dr JAMES PRIMROSE of Hull, and the still more frivolous work of ÆMILIUS PARIANUS of Venice, containing a pretended refutation of the doctrine of the Circulation. So mean was the jealousy of other contemporaries of HARVEY, that, while they were conscious that they knew nothing of this doctrine till it was promulgated by him in the year 1628, they endeavoured to detract from his merit, by alleging that he had borrowed it from some ancient writers. It would be

very easy to shew that no writer before HARVEY had any conception of any other movement of the blood than an undulating progress in the vessels, or a flux and reflux from one extremity of a vessel to the other. It is not so very wonderful that men of learned education should have been tenacious of the opinions which they derived from venerated names, at a time when dissection was little practised, and when experiments on living animals had been made to a very limited extent ; but it is certainly surprising, that, even since the commencement of this century, there should have been a volume published by a medical practitioner of acknowledged ability, Mr GEORGE KERR of Aberdeen, who undertook to disprove the Harveian doctrine, and to demonstrate the truth of system of the ancients, by a parade of veteran authorities.

It is not, however, my intention to make any further reference to the illustrious individual under whose name we are here assembled to-day, and to whose great discovery the revolution of two centuries has now given the impress of acknowledged truth. I proceed at once to introduce to your notice the subject of the present sketch, himself one of HARVEY'S most distinguished admirers, and one of the earliest

as well as latest ornaments of this Society. The name of Dr JAMES HAMILTON stands first in the list of original members,—and though it is now two years and a half since he died, and a considerably longer period since he appeared at any of our convivial meetings, there is not one of us who does not cherish a most lively remembrance of his venerable aspect, his graceful manners, and his solid worth; and I may venture to hope, that not one who is here present will think a few minutes misspent in the recital of some particulars of his active and useful professional life.

He was descended from one of the most ancient and honourable families in Scotland,—the family of Preston, said to be the oldest cadet of the house of Hamilton. His great-grandfather GAVIN HAMILTON of Airdrie had two sons, ROBERT and WILLIAM. ROBERT succeeded to his father's estate; and on the death of Sir ROBERT HAMILTON, became the representative of the house of Preston, and acquired the right to the title of Baronet; which, however, he did not assume, on account of the losses which his kinsman Sir ROBERT had sustained, while he acted as commander of the army of the Covenanters at the battles of Drumclog and Both-

well Bridge. From this ROBERT HAMILTON were descended several eminent men, particularly THOMAS HAMILTON, Professor of Anatomy in the University of Glasgow, who died in 1781, leaving one son, WILLIAM, who succeeded him in that chair, and died in 1793, at the age of 33. He left two sons, one of whom, Sir WILLIAM HAMILTON, is the distinguished Professor of Logic in the University of Edinburgh, and the other, Captain THOMAS HAMILTON, is well known as the author of several productions of genius. From GAVIN HAMILTON of Airdrie, a race of not less eminent men traced their descent through the line of his second son WILLIAM, who, after being some years minister of Cramond, became Professor of Divinity at Edinburgh in 1709, and Principal of the College in 1732. Among other men of great talents and literature who sprung from him, may be mentioned the late Dr ROBERT HAMILTON, Professor of Mathematics at Aberdeen,—Dr SAMUEL HORSLEY, Bishop of St Asaph,—and Mr CLEGHORN, Professor of History at St Andrews. ROBERT, one of the sons of Principal HAMILTON, was many years a minister of Edinburgh, and in the year 1754 became Professor of Divinity. The subject of this memoir was

the son of this eminent divine, who married JANE HAY, sister of the late Sir JAMES HAY of Smithfield and Hayston, a fellow of the College of Physicians of Edinburgh. He was born at Edinburgh in 1749. He passed through the usual course of classical instruction in the High School, and entered the College in 1764, as a Student of Humanity under Dr GEORGE STUART. The following year he attended the Greek and other classes. In 1766 he attended the Natural Philosophy class, then taught by Professor RUSSELL, father of the late Professor JAMES RUSSELL ; and the same year he entered on the study of medicine, attending the class of Anatomy and Surgery. He continued his attendance at the medical classes during the years 1767, 1768, 1769, and 1770. Thus his medical course occupied five sessions, and at the same time he enjoyed the benefit of being an apprentice to Messrs RUSSELL and BALFOUR, Fellows of the Royal College of Surgeons. The Professors of Medicine in the University of Edinburgh at this period were Dr ALEXANDER MONRO *Secundus*, Dr WILLIAM CULLEN, Dr JOHN HOPE, Dr JOSEPH BLACK, Dr JOHN GREGORY, and Dr FRANCIS HOME.

It may not be uninteresting to mention the names

of a few of the fellow-students of Dr HAMILTON, who afterwards became conspicuous for their attainments, such as, in the Literary Classes, WILLIAM ADAM, Lord Chief Commissioner, DUGALD STEWART, Sir JOHN SINCLAIR, Professor DALZEL, Sir JAMES HALL, Honourable HENRY ERSKINE ;—and in the Medical Classes, Dr BENJAMIN RUSH, Sir GILBERT BLANE, Mr BENJAMIN BELL, Dr DANIEL RUTHERFORD, Dr ANDREW DUNCAN, Dr ALEXANDER MONRO DRUMMOND, Dr JAMES GREGORY, Mr JAMES RUSSELL, and many others, among whom may be included some of the original members of this Society.

It is easy to conceive, that the emulation excited by the ardour and success with which so many young men of talent and diligence prosecuted their studies, must have had a happy effect on such a mind as that of JAMES HAMILTON, who, though his voice was not much heard in the controversial discussions which occupied a great share of the attention of the Academical Societies of that period, yielded to none in the quiet and persevering assiduity, by which the foundation of future professional eminence is more securely laid. That these advantages were not lost

on him is sufficiently proved by the maturity which he had confessedly attained, when he took the degree of Doctor of Physic in the 22d year of his age. The subject of his Inaugural Dissertation, which he publicly defended on the 12th of June 1771, was “De Perspiratione Insensibili,”—and in the discussion of this subject, he manifested an intimate acquaintance with the views and reasonings of all the best writers on the animal economy, and seems, on the whole, to have acquiesced in the physiological doctrines of HALLER, as far as they coincided with those of CULLEN.

After he received his degree, he studied some time at Paris, and, before his return to Scotland, travelled to Italy with an invalid. His absence was not of long duration. He became a licentiate of the College of Physicians on the 5th of November 1771, and was admitted a fellow of that College on the 3d of November 1772. The number and respectability of Dr HAMILTON’S connections facilitated his introduction to practice, and their influence obtained his appointment as Physician to several of the most important Institutions in the city. In July 1773, he was appointed Physician to George Heriot’s Hospital. About the same time he was elected by the

Managers of the Royal Infirmary, one of the Ordinary Physicians. He was also appointed Physician to the Merchant Maiden Hospital, and the Trades' Maiden Hospital. To the duties which thus devolved on him, he devoted himself with unwearied application and zeal. He never suffered himself to be immersed in speculation,—but as the surest basis of solid practical attainments, his observations of the phenomena of disease, and of the effects of the remedies employed, were made with great patience and discrimination, and without suffering his mind to be unduly biassed by any favourite system. He felt no ambition to be the founder of a school; and while he was on his guard against rash and adventurous innovation, his manly and independent mind was incapable of submitting, with implicit and servile deference, to the authority of any leader. As a collector of medical facts, he enjoyed the best opportunities of gaining correct information. In his extensive practice, particularly in hospitals, his attention was anxiously directed to the treatment of fever; which, from time immemorial, has been one of the most fatal of the diseases which infest this city, and which, during the early part of his practice, was repeatedly marked by a character of almost pestilential

malignity. In the summer of 1779, a visitation of this kind excited alarm,—the fever having originated in an hospital of sick prisoners of war in Edinburgh Castle. In the summer and autumn of 1781, a still more formidable epidemic of *typhus gravior*, commencing in some ships of war and merchantmen from Jamaica, proved fatal to a great number of the inhabitants of Edinburgh and Leith. Dr HAMILTON having charge of many of these patients, began, in conformity with the usual practice, to administer mild remedies in the form of small doses of antimony, &c., and finding them ineffectual, had recourse to preparations of a more active nature. The change was succeeded by a favourable result; and he observed that the antimonials which he employed had a good effect only when they acted as laxatives. He then was induced to try other purgative medicines, and found them generally efficacious in relieving the oppression of the stomach, mitigating thirst and other febrile symptoms, and so far from aggravating the debilitating effects of fever, actually restoring firmness to the pulse. He did not omit to employ the remedies which other indications seemed to require; but the more he extended his experience, the more was he satisfied that the cathartics which he employ-

ed had a salutary influence on the nervous system, while they lessened the debility, which, according to old prejudices, it was apprehended that they would increase. It would be out of place here to rehearse the steps by which Dr HAMILTON proceeded in applying the same principles to the treatment of Scarlatina, Marasmus, Chlorosis, and several other diseases. But it is not uninteresting to observe, that the commencement of the practice in the case of continued fever, is coeval with the establishment of this Society; and that, in all probability, the friendly intercourse which such an association is calculated to promote, must have had considerable effect in extending an improvement, the value of which is now fully appreciated.

Dr HAMILTON was not impatient for the acquisition of celebrity as an author, and he had the efficacy of his practice demonstrated by the experience of more than twenty years, when he published, in 1805, his *Observations on the Utility and Administration of Purgative Medicines on several diseases*,—a work which passed through eight editions in this country, in little more than twenty years, besides being republished in America, and translated into French.

The first appearance of Dr HAMILTON'S book was not, indeed, hailed with the universal approbation of men of professional distinction. Many, if not all, of the objections which were urged against his practice arose from a complete misapprehension of the principles on which it was founded, and a neglect of the cautions which the author had uniformly observed, and which he anxiously recommended to others. Without referring to the writers whose animadversions never provoked Dr HAMILTON to engage in any controversy, we may take notice of the remarks of Sir GILBERT BLANE, introduced into his work entitled *Elements of Medical Logic*, in which work Dr HAMILTON'S practice is controverted, particularly with respect to the exhibition of purgatives in the cure of Typhus, Scarlatina, and Chorea Sancti Viti. Dr HAMILTON on this occasion, though he adhered to his previous resolution to restrain from publishing any defence, thought it prudent to print for private circulation among his friends a few copies of a Letter to Professor JAMES RUSSELL, containing remarks on some passages in Sir GILBERT'S book.

In this letter he contents himself with reminding the readers of his work, that he had never employed

purgative medicines for any other purpose than to produce a laxative effect only, in the cases in which Sir GILBERT deprecates most strongly a course of purging which Dr HAMILTON had himself from the first disapproved, as having a tendency to exhaust the patient. He had invariably declared that in the cases of Typhus, Scarlatina, and Diarrhœa, important as it is to unload the bowels, it is equally important to guard against the risk of inducing weakness. In the case of Chorea, which Sir GILBERT BLANE professed in ordinary cases to cure by the cold bath and metallic tonics, Dr HAMILTON had in his work represented the utility of the application of cold to the surface to depend chiefly on the influence which cold possesses in promoting and supporting the alvine evacuation. With respect to metallic tonics, he had no confidence in them whatever.

On another point, namely, the specific action of Purgative Medicines, Sir GILBERT BLANE decidedly differed from Dr HAMILTON; and maintained, that no practical fact was better established, than that the various species of purgatives were distinguished in their operation by dislodging different species of corrupted secretions, and other feculent matter. Dr HAMILTON was not convinced that this point was satis-

factorily ascertained ; but without entering disputatiously into theoretical disquisitions, or absolutely denying that part of the advantage derived from purgative medicines might be ascribed to their efficacy in stimulating the ducts of different glands in the intestinal canal, and thus promoting their respective secretions, he referred the benefit of these medicines, in the diseases which he treated, to their sensible effect in unloading the bowels, rather than to any less obvious and more questionable power, which they may be capable of exciting. No man could be less dogmatical than Dr HAMILTON was in matters of speculation ; and, on the other hand, no man was ever more becomingly firm in maintaining the certainty of the conclusions which he had cautiously and deliberately established on the solid foundation of long experience. It must have been very gratifying to him to receive such a testimony of the estimation in which his services were held in other countries, as is contained in a letter from Mr LAFISSE, the translator of his work into French, who says, “ that he had been induced to undertake the task by the consideration that such a work can never be sufficiently known in all countries ;” and then adds, “ whatever be the variations of our medical theories, your prac-

tice will constantly preserve its use and efficacy." In this letter, dated 24th January 1827, Mr LAFISSE states that Dr BIET had adopted Dr HAMILTON'S treatment, with much profit, in cases of cutaneous diseases at the Hospital St Louis.

A less complimentary notice of Dr HAMILTON'S book was communicated to the public a few years afterwards, in "Dr STOKE'S Observations on *Enteritis*, *Gastritis*, and *Gastro-Enteritis*," contained in the "Cyclopedia of Practical Medicine." Among the causes of the prevailing ignorance of the pathological states of the alimentary tube, Dr STOKE is pleased to assign this as one, namely, "the spread of the doctrines of HAMILTON, so popular to many minds from this, that, under the name of science, was put forward an empiricism, easy in its application, though destructive in its results, and saving the trouble of thinking and the necessity of study."

Dr HAMILTON had the satisfaction of seeing a very temperate and judicious defence against this allegation, in No. CXVI. of the Edinburgh Medical and Surgical Journal; and he soon afterwards (on the 9th of September 1833) printed and circulated among his friends a few observations, in the course of which he states that the experience of thirty years had fully

confirmed the utility of the agents which, after much patient and anxious inquiry, he had recommended ; in the administration of which he had uniformly inculcated, that they were intended to produce, not severe or repeated purging, but a laxative effect ; and had urged the necessity of inspecting the *alvine egesta*, that a correct judgment of the nature of a malady might be formed, and the subsequent doses, as well as the time of the repetition of medicines, might be ascertained. To the neglect of this attention he ascribed the injury which might sometimes occur ; but he maintained that he could not be accountable for results against which he had endeavoured to guard.

It would almost be injustice to his memory to forbear to quote the following spirited sentence, which reflects great credit on the sound judgment and good taste of a man who had completed his 84th year. “ I have not been aware that I incurred the charge of empiricism ; but, if I have ascertained the loaded state of the bowels to be the cause of some diseases ; if I have traced the effects of this state through the gradual decline of health to the introduction of distressing and obstinate ailments ; if, in proposing a remedy for these, I have contributed to

the happiness and enjoyment of mankind ; if I have recalled the sparkling lustre to the languid eye, and the bloom of youthful beauty to the pale cheek ; if these things constituted me an empiric, I cheerfully accept the imputation, and will glory in the name.”

The distinctions which Dr HAMILTON obtained do not require to be very minutely detailed. He was one of the original Fellows of the Royal Society of Edinburgh. He was elected President of the College of Physicians in 1792, having been President of the Harveian Society the preceding year. The Managers of the Royal Infirmary, and the Governors of Heriot's Hospital testified their sense of his valuable services by requesting him to sit for his picture, and by voting him their thanks. A still more substantial tribute to his excellencies was rendered to him by the confidence which his numerous patients reposed in him. It would be superfluous here to dwell on the features of a character which was so universally respected. To all that is most valuable in the literature of his profession, he added the accomplishments of a perfect gentleman. Retaining through life some peculiarities of exterior which sat very gracefully on him, he was most unobtrusive and unaffected in his manner. He was a lover of peace,

and never engaged in acrimonious controversy. No man ever succeeded better in winning and preserving the affection of his equals ; and he had the happiness of being hailed as a benefactor of the poor. The infirmities of old age, from which he was not altogether exempted, were mitigated by the society of his relatives and friends ; and, though his decease has created a blank which will not soon be supplied, we may venture to predict that the memory of his personal worth and professional eminence will never perish, so long as posterity shall be capable of estimating the obligations which the Medical School of Edinburgh conferred on science and humanity, in the age of MONRO and BLACK and CULLEN.