

History of Medicine

Pioneering Scottish medical journals

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INTRODUCTION

The *Scottish Medical Journal*, currently published four times a year, incorporates the *Edinburgh Medical Journal* (founded in 1855) and the *Glasgow Medical Journal* (founded in 1828). These journals were merged in 1956. The *Edinburgh Medical Journal* was the successor of the *Edinburgh Medical and Surgical Journal* (1805–1855). This can be traced back to the *Annals of Medicine* (started in 1796), which, in turn, descended from the *Medical Essays and Observations* published from 1733. The latter featured papers presented at meetings of the Edinburgh College of Physicians. It also included extracts from French and German texts and papers from medical officers of the East India Company and those in West Africa and the Americas.^{1,2}

MEDICAL ESSAYS AND OBSERVATIONS

The first volume of the *Medical Essays and Observations* (Fig. 1)³ published in 1733 was dedicated to Sir Hans Sloane (1660–1735)—the President, and to the Council and Fellows of the Royal Society of London. (The Royal Society was founded in 1660.⁴ Sloane was president from 1727 to 1741. Sir Venkatraman Ramakrishnan, a name known to many Indians, was president of this august society from 2015 to 2020.⁵)

As with all similar journals, the students of the history of medicine will find much to explore and ponder.

The preface to this inaugural volume of the journal started with a statement that applies even more emphatically to the present. 'No complaint is more general among those who apply to the study of any liberal science, than their being under the necessity of perusing such numbers of books as are wrote on the several parts of each of them: a labour that can have no end, since one book serves only as an introduction to another...' The journal was intended to publish 'collections of small treatises...'. I commend a study of the entire preface which is frank and outspoken. For instance on page ix, the preface reads: 'Vanity and interest are powerful motives to make us magnify our own success, conceal our mistakes and to wish the world would believe us ignorant of no disease or its cure...' The preface also refers to medical journals such as *Acta Medica Berolinensia*, *Acta Wratiflaviensia* and publications of learned societies in London, Paris, Petersburg and Germany.

Each volume of the *Medical Essays and Observations* included a register of weather in Edinburgh over the preceding 12 months, accounts of epidemic diseases in Edinburgh and observations and essays on the history of physick, simple drugs, compound Galenical medicines, chemical operations and experiments, anatomy, 'animal oeconomy', theory and practice of surgery and physick and discoveries or improvement made anywhere else in the several branches of medicine.

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['...oeconomia animalis, the name given to the living system...The oeconomia animalis as a genre of physiological investigation had its roots in Dutch medical literature...'⁶]

Pages 1–45 were devoted to the city, its weather, diseases and deaths in Edinburgh (Fig. 2).

On page 38, in the chapter dealing with diseases seen in Edinburgh during the previous year, we encounter an unusual descriptive term—'The crystal or Bastard Small-pox'. ('Bastard'

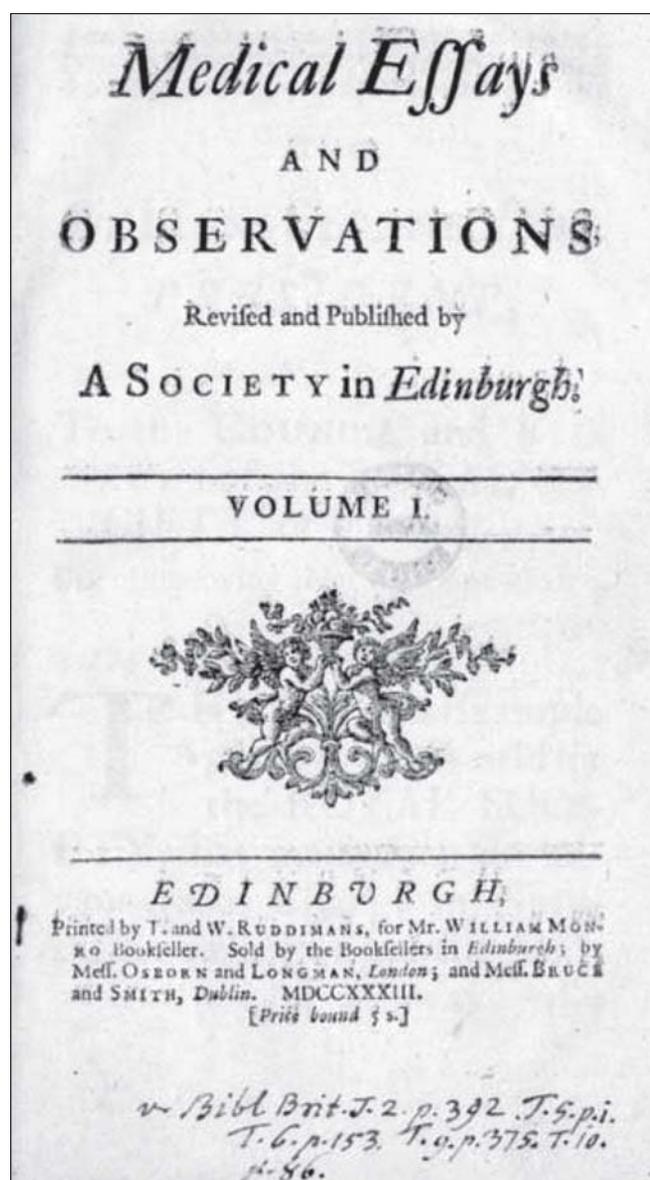


FIG 1. *Medical Essays and Observations*, Volume 1, 1733

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Fig 2. The 'contents' pages of the first volume of the *Medical Essays and Observations*

probably refers to a variant form of eruption. Knox⁷ referred in 1850 to 'Bastard forms of cow-pock...spurious varieties of the disease in the cow...incapability of imparting any protection...')

Three generations of a family—father, son and grandson, each named Alexander Monro—held the chair of Professor of Anatomy in Edinburgh in an unbroken succession from 1720 to 1846 and were referred to as Monro Primus (1697–1767), Monro Secundus (1733–1817) and Monro Tertius (1773–1859) for clarity. Monro Primus published four papers in this volume. (The interventricular foramina in the brain were described by Monro Primus's son in 1783 in the *Observations on the Structure and Functions of the Nervous System*.⁸)

The first of these Monro essays (pp. 94–111) described in detail how he prepared anatomical specimens from animals after 'filling their vessels with a coloured liquor which afterwards hardens' so that arteries, capillaries and veins could be distinguished. His other papers in this volume—*Remarks on the articulation, muscles and luxation of the lower jaws* (p. 124); *Improvements in performing the operation of the paracentesis or tapping of the belly* (p. 214); and *A tympany* (p. 294)—could be of considerable interest to the readers.

John Stedman (also spelt as 'Steadman', 1710–1791), a Scottish physician, described a patient who had 'hastily swallowed a large piece of the bone of a cow's head' and was troubled by it having lodged 'an inch and a half above the xiphoid cartilage'. The diagnosis is, in itself, commendable in the absence of any form of imaging. Even more interesting is the 'operation that I do not know is described by any author which was the extracting it by the mouth using a long rod of flexible steel'. The manipulation of this device, without any means, for locating the cow's bone and the successful removal of the bone commands admiration (pp. 210–12).

David Hume (1711–1776), a renowned philosopher and historian, was then one of the secretaries of the Society. His essay, 'A treatise of human nature'⁹ published in 1739, sparked off controversy as in it he advocated that the study of man and his nature be based only on observation and experience. Since

such study would, of necessity, include that of religion and, indeed, God, he was soon challenged by many of his colleagues.

ESSAYS AND OBSERVATIONS, PHYSICAL AND LITERARY
The Philosophical Society of Edinburgh had been established in 1737 as the successor to the Society for the Improvement of Medical Knowledge. Consequently, it discussed and published accounts of 'discoveries and improvements' in medicine and science. These publications were forerunners of subsequent medical and scientific journals.

In 1783, the Philosophical Society was absorbed into the newly formed Royal Society of Edinburgh, which continues to this day as Scotland's national academy.

The Philosophical Society of Edinburgh published the '*Essays and observations, physical and literary: Read before a society in Edinburgh, and published by them*'¹⁰ from 1754 to 1771 (Fig. 3).

I reproduce a few passages from the preface as the reasoning and explanations are exemplary:

AFTER the medical society of Edinburgh had published those volumes of Essays, which have met with so favourable a reception from the public, a proposal was made them to enlarge their plan, and to carry their disquisitions into other parts of nature, beside such as more immediately relate to the branches of medicine. All the sciences are remarked to have a close connexion together; but none more than those of medicine and natural philosophy: And the society soon observed, that, should it turn its inquiries into more general knowledge, it could reap the advantage of preserving all its old members, and needed but open its door to Gentlemen of other professions, who might enrich it with their observations and discoveries. (p. iii, first page of preface)

THE object of this society is the same with that of the other academies, which have been established in different parts of Europe, the promoting of natural

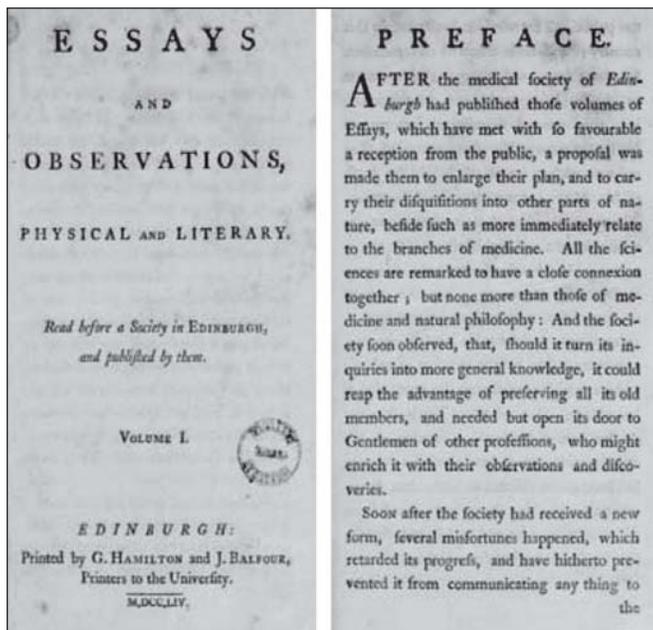


FIG 3. *Essays and observations, physical and literary: Read before a society in Edinburgh, and published by them.* Volume 1, 1754.

philosophy, and of literature, by communicating to the public such dissertations as shall be transmitted to them, either by their own members or by others. (p. v)

THE sciences of theology, morals, and politics, the society are resolved entirely to exclude from their plan. However difficult the inferences in these sciences, the facts, on which they are founded, are extremely obvious; and we could not hope, by our collections, to be, in this respect, of any service to the public. (pp. vi–vii)

IT is not that the society expect or propose, that what they communicate will be entirely above doubt or disputation. [As seen, especially, in the last sentence of this paragraph and the first in the next paragraph, the word *Society* is used as a plural noun.—SKP] The papers, indeed, which they print, were all read before them, and they gave their consent to the inserting them in their collections: But they pretend not to warrant the justness of every reasoning, nor the accuracy of every observation. The author alone of each paper is answerable for the contents of it: And the society are as willing to insert (*publish*) what may be communicated in opposition to the sentiments of any of its members, as in confirmation of them. (pp. vii–viii)

THE society are sensible that it belongs alone to the public to decide concerning the value of any invention; and all the merit to which they pretend, is that of exciting the industry of the learned, and of conveying their productions to the notice of the world. They assume not such authority as to stamp their approbation on any performance, even those which they communicate, much less those which have barely been read before them. If ever their testimony has been cited by any author in favour of his books, reasonings, or machines, they hereby declare, that this liberty has been used entirely without their consent or knowledge,

and proceeded alone from the fond opinion, which the writer had entertained of his own performance. (p. viii)

WHOEVER will favour the society with any discourse which it comprehends in its plan, may send their papers to either of the secretaries, Mr. ALEXANDER MONRO Professor of Anatomy at Edinburgh, or Mr. DAVID HUME Library-keeper to the faculty of Advocates. (p. viii)

The contents of volume 1 include essays on the laws of motion and of inertia, the obliquity of the ecliptic and others on physics, mathematics and astronomy; chemistry, and a dissertation on the sexes of plants. Of the papers pertaining to medicine, we find descriptions on the benefits of spas and lime waters by Dr Robert Whytt F.R.S. (1714–1766) (Students of neurology will recall Dr Whytt's *Observations on dropsy of the brain* and texts on neurophysiology¹¹) and the anthelmintic virtues of the root of the *Indian pink* (*Spigelia marilandica* in the *Loganiaceae* family), which is a part of a letter from John Lining to Robert Whytt. The other major contributor, as can be expected, is Alexander Monro Primus. His essays in this volume are on the intercostal muscles and on cure of a fractured tendo Achilles. Table VIII shows illustrations of the splints and shoe devised by him. There are also essays by Alexander Monro Secundus, then a medical student, on seminal vessels and gravid uteri. (He recorded his description and illustrations regarding the communication between the lateral and third ventricles of the brain in his *Observations on the structure and function of the nervous system* [1783].¹²)

Also of considerable interest is the paper by James Wilson, surgeon at 'Durrisdeer', on lead poisoning seen in those employed in smelting. The 18th century description of symptoms and signs (in men, sheep, dogs and even birds) and measures available to the clinicians of the period is admirable. (Durrisdeer is a small village in Dumfries and Galloway, southwest Scotland.)

ANNALS OF MEDICINE

From 1796, the *Annals of Medicine* followed publication of the *Medical Commentaries* over 20 years by Dr Andrew Duncan, senior (1744–1828). Dr Duncan was a founding fellow of the Royal Society of Edinburgh. The object of the journal was 'to exhibit a concise view of the latest and most important discoveries in medicine and medical philosophy, particularly those which tended to improve the practice of the healing art'.

The works reviewed in the first volume (Fig. 4) provide an insight into what was on offer then. They include:

- I. Fontaine, F.L. de la, *Surgical and medical treatises on various subjects*
- II. Foderé, *Essay on the bronchocele and cretinism*
- III. Wichman, D.I.E., *Upon the asthma acutum periodicum Millari, and angina polyposa*
- IV. Lentin, F.L.B., *Of the effects of the gratiola in madness* (*Gratiola* is a genus of plants in the family Plantaginaceae.)
- V. Hufeland, C.W., *Remarks on the dysentery which was epidemic at Jena in autumn 1795*
- VI. Girtanner, D., *Experiments and observations on Beddoes's new method of curing consumption*
- VII. Fischer, C.E., *Medical and surgical observations upon London*
- VIII. Brandis, J.D., *Upon the use of the lukewarm bath in fevers*

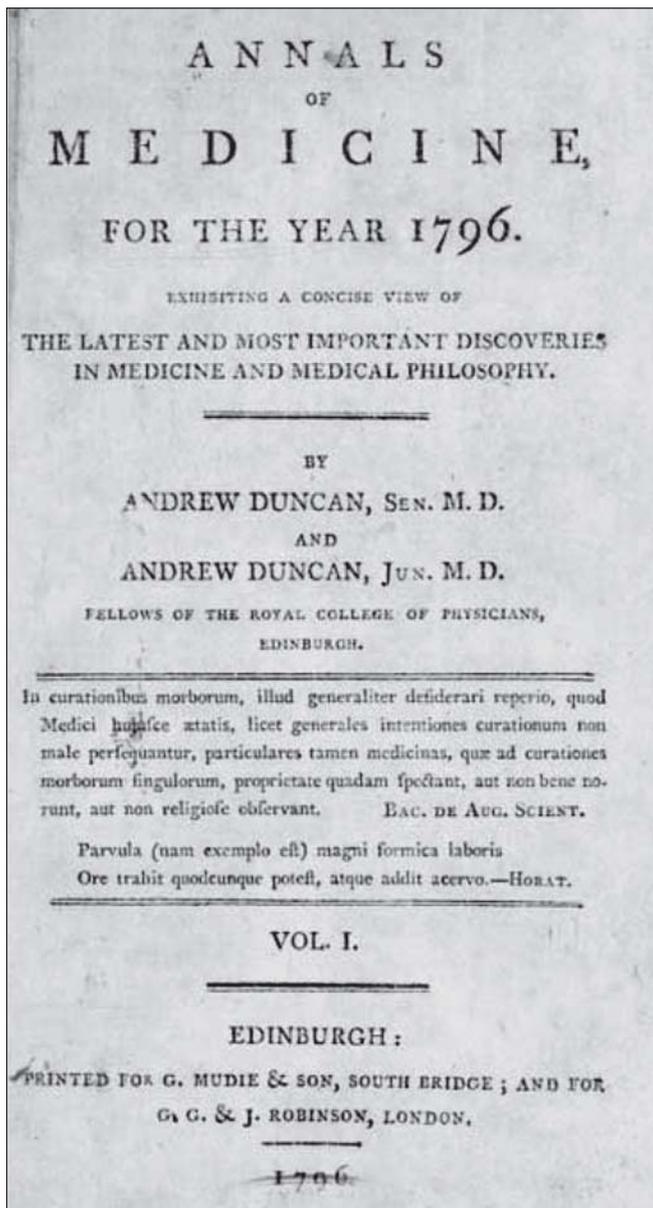


FIG 4. *Annals of Medicine* Volume 1, 1796

- IX. Carmichael Smyth, James, *a description of the jail-distemper, as it appeared among the Spanish prisoners at Winchester, in 1780*
- X. Carmichael Smyth, James, *An account of the experiment made on board the Union Hospital-Ship, to determine the effect of the nitrous acid in destroying contagion*
- XI. Bryce, James, *An account of the yellow fever; with a successful method of cure*
- XII. Paterson, D., *A Treatise on the scurvy; containing a new, easy, and effectual method of curing that disease*
- XIII. Davidson, William, *Observations, anatomical, physiological, and pathological, on the pulmonary system*
- XIV. Reil, Jo Christ., *Memorabilium clinicorum medico-practicorum fasciculus quartus*
- XV. Grapengiesser, Car Joan., *Dissertatio medica de hydropse plethorico (Hydropse plethorico = dropsy)*

- XVI. Liljeblad, Sam., *Usus lapidis suilli in lithiasi renali (Lapis Suilli = an earthy stone, which has long been employed as an useful remedy against the diseases of domestic animals)*
- XVII. Schmidt, Ern. Fred., *Dissertatio medica de angina pectoris*
- XVIII. Darwin, Erasmus, *Zoonomia, or the laws of organic life*
- XIX. Beddoes, Thomas, *Considerations on the medicinal use, and on the production of factitious airs (Factitious airs=any kind of gas or vapour produced artificially or experimentally)*
- XX. Hamilton, James, Junior, *Select Cases in midwifery; extracted from the records of the Edinburgh General Lying-In Hospital; with remarks*

I shall highlight just two of these reviews.

D. Paterson, a surgeon in the Royal Navy of the Great Britain, was aware of the findings made by James Lind on treatment of scurvy. (James Lind [1716–1794], a surgeon in the Scottish Navy, had conducted the first ever prospectively controlled clinical trial in 1747 and had subsequently published the results in *A treatise of the scurvy*¹³ in 1753.) D. Paterson in his review in the *Annals of Medicine* stated that ‘vegetables have justly been considered as the principal remedies; and the acescent fruits such as lemons, limes and oranges have been viewed as the most powerful antiscorbutics...’. He, however, championed the use of ‘acetum nitrosum’ as the cure! (*Acetum nitrosum*=a solution of nitre in common vinegar; *nitre*=potassium nitrate or saltpetre; *acescent*=sour.)

The other features the well-known classic by Erasmus Darwin (1731–1802) entitled *Zoonomia*. Grandfather of the naturalist Charles Darwin, Erasmus wrote *Zoonomia* as a system of pathology. In the chapter entitled *Generation*, he referred to Lamarck and his views that foreshadowed Charles Darwin’s work on evolution. Many will agree with Erasmus Darwin’s view that the three great objects of desire of every organism are lust, hunger and security. His ‘much less libidinous’ grandson developed this view when he wrote of the survival of the fittest.

A paper in this volume that will interest neurologists describes two patients who showed that the anterior part of the brain may sustain considerable injury without a fatal consequence. (Dr John Nelson Scott on pp. 358–70)

Dr William Withering F.R.S. (1741–1799) of the University of Edinburgh Medical School, better known for his work on the foxglove (*Digitalis purpurea* from the family *Plantaginaceae*) published in ‘*An account of the foxglove and some of its medical uses; with practical remarks on the dropsy, and some other diseases*’ in 1785 (discovered by him first in 1775),¹⁴ reports here on ‘pneumatic medicine’. Whilst ‘a cure of consumption is yet to be sought for, hydrocarbonate and oxygene are the two airs that have mostly been used; and these should be diluted with eighteen or twenty times their bulk of atmospheric air.’ The breathing in of these gases, he believed, was helpful. (pp. 392–393)

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By now we are in the 19th century and must conclude our account. This is a pity for the first paper is on *perineal fistulae left by the transit of the infant through the perineum* by Dr James Young Simpson (1811–1870). He was to go on to demonstrate the anaesthetic properties of chloroform during childbirth. (It is interesting to note that Dr Simpson received opposition for the use of chloroform during childbirth as it was

viewed natural to have a normal childbirth. But this opposition ceased when Queen Victoria was ‘greatly pleased’ by the successful administration of chloroform during the delivery of her eighth child.¹⁵)

And yet, we must call a halt, hoping you will have been stimulated to pursue searches to this one.

CONCLUSION

These works, hallowed by time, are great storehouses of medical history. Even when modern medical practices have diverged from those of yore, we learn much. The enterprise, expertise and scientific spirit of these pioneers make them inspirational role models. Their detailed observations remain invaluable and the means used to relieve their patients—especially those by surgery—command admiration.

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