

**The Scottish Society of the History
of Medicine**

(Founded April, 1948)

**REPORT
OF
PROCEEDINGS**

SESSION 1955-56

The Scottish Society of the History of Medicine.

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| <i>Council</i> | - | - | Col. JOHN MORISON retires by rotation, | 1956 |
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| | | | ROYAL MEDICAL SOCIETY (ex officio). | |

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REPORT OF PROCEEDINGS

1955-56

The Society has again had a successful session with good attendances at the three meetings and informative and useful discussions followed each of the papers delivered before the Society. Membership stands at one hundred and fifteen, the same as last year, though the Society suffered losses from the resignations or deaths of some members. New members however continue to be recruited. A severe loss was sustained by the Society as a result of the death on 28th January, 1956, of Dr. Henry J. C. Gibson, a founder member. He it was who gave the first paper to the Society at its Inaugural Meeting in April 1948. He was a member of the Council for some years until ill-health compelled him to resign from it but he continued to take an active and lively interest in the Society. A charming man, he was deeply versed in the classics and medical history. Dr. W. R. Snodgrass, who in the midst of heavy professional commitments found time to give the Society his active support, died on 22nd November, 1955. Medical historians throughout the world will mourn the loss of Professor George Sarton who died on 22nd March, 1956, at Cambridge, Massachusetts, aged seventy-one years. He will always be remembered for his monumental *Introduction to the History of Science*. The nursing profession also suffered a loss in the death of Miss Lavinia Dock, co-author of Dock and Nutting's *History of Nursing*. She died in the United States on 17th April, 1956, in her ninety-ninth year. She was co-founder of the International Council of Nurses and was the first instructor at Johns Hopkins School of Nursing at Baltimore.

This year the Council of the Society decided that the Report should be expanded to include the full texts of the papers delivered before the Society during the session, and the usual medico-historical notes and notices of some historical publications are also included.

At the Seventh Annual General Meeting held in Glasgow in October, 1955, Mr. A. L. Goodall was re-elected President. At this meeting the Society unanimously decided to honour Dr. Douglas Guthrie, its first President, on the occasion of his seventieth birthday, by making him a presentation at an informal luncheon to precede the next meeting in February, 1956. Following the business, a paper was read by the Revd. Dr. A. M. Gillespie on *Some Peeblesshire Doctors*. The twenty-fifth ordinary meeting was held in February, 1956, in the Rooms of the Royal Society of Edinburgh. A large gathering of members assembled for luncheon to do homage to Dr. Guthrie. Unfortunately he was unable to be present owing to illness but Mrs. Guthrie graciously took his place. The President, in an appropriately felicitous speech paid tribute to Dr. Guthrie as a man and as a medical historian and spoke appreciatively of the great work he had done and continued to do for the Society. Mr. Goodall wished Dr. Guthrie a speedy recovery from his indisposition. He then presented Mrs. Guthrie with a bound volume, suitably inscribed, of the Society's Annual Reports and re-printed papers, as a tangible token of the Society's great affection for her husband. Mrs. Guthrie replied in a charming and delightful way. In expressing Dr. Guthrie's great disappointment at not being able to be present she gave a message from him in which he acknowledged the generous and willing help he had received from several of his friends and colleagues in his efforts to found the Society. Dr. Guthrie has subsequently been elected President of the Section of

the History of Medicine of the Royal Society of Medicine and we would extend the Society's congratulations to him on this further recognition of his services in the field of the history of medicine. Following the presentation, the Society was constituted formally for its business meeting at which a paper on *John Goodsir* was delivered by Dr. H. W. Y. Taylor. The summer meeting was held in June at Linlithgow and the Society was honoured by the presence of Sir Arthur MacNalty. After a tour of the Palace and St. Michael's Church, the visit to the latter being conducted by the minister, the Revd. C. N. Rutherford, a paper was given by Dr. M. H. Armstrong Davison on *The Maladies of Mary Queen of Scots and her Husbands*.

Medico-Historical Notes and Book Notices.

In October, 1955, a museum was opened in the town of Annan, Dumfriesshire, and its contents include relics of Dr. Archibald Arnott of Kirkconnel Hall, Ecclefechan, who attended Napoleon on his deathbed at St. Helena in 1821. Arnott took part in the retreat to Corunna during the Peninsular War and was present at the death and burial of Sir John Moore. Arnott died in July, 1855.

To commemorate the one hundred and fiftieth anniversary of the death of Mungo Park, two events took place at Selkirk near to which town he was born in 1771. The Selkirkshire Antiquarian Society with the patronage of the Town Council arranged for a memorial lecture and for an exhibition of Park relics. The lecture was given by Professor Ronald Miller of the Chair of Geography at Glasgow University on 10th November, 1955, and it was subsequently published (*Scottish Geographical Magazine*, 1955, **71**, 147). The exhibits included Park's sword, pocket book, cuff links, some letters and a first edition of his *Travels* (1799). On Sunday, 13th November, a special service was held at the Lawson Memorial Church followed by the laying of wreaths on the handsome monument which stands in Selkirk High Street. The monument was floodlit at nights. A short note on Mungo Park was contributed by Dr. Tait to the *British Medical Journal* (1955, **ii**, 1559).

The year 1956 is a notable one for centenaries. The Victoria Cross was first awarded in 1856, and the *British Medical Journal* (28th January), had an interesting illustrated article on medical holders of this medal. In May, celebrations were held in London to mark the centenary of the birth of Sigmund Freud and as part of the proceedings Dr. Ernest Jones delivered the Centenary Address of the International Psycho-Analytical Association. Later the same month the Society of Medical Officers of Health celebrated the hundredth anniversary of its foundation. A centenary oration, entitled *Organisers of Health*, was given by Lord Adrian (*British Medical Journal*, 1956, **i**, 1189), while a history of the Society by Dr. W. S. Walton appeared later (*Public Health*, 1956, **69**, 160-226). In connection with this particular centenary an exhibition on The Evolution of Measures for the Protection of the Nation's Health, organised by Dr. E. Ashworth Underwood, was opened at the Wellcome Historical Medical Museum while another covering particularly the last hundred years in Great Britain was on view at the London School of Hygiene and Tropical Medicine. The Annual Report of the County Medical Officer of Health and Principal School Medical Officer of London County Council for 1954 and published in December, 1955, contains an interesting historical sketch of the development of the Council's School Health Service.

This year was also the golden jubilee year of the British Journal of Tuberculosis and Diseases of the Chest which was founded in 1906 by Dr. T. N. Kelynack, and of the National Society of Children's Nurseries, a pioneer voluntary organisation in the field of child health in Great Britain. In the *Glasgow Herald* of 13th June, Professor Thomas Ferguson drew attention to the fact that on this date in 1906 was held in London the first session of the momentous conference on infant welfare from which developed the growth of the movement in Great Britain.

Mention was made in the Society's Report for 1953-54 of a small pamphlet describing pharmacy and medicine in old Edinburgh. The oldest chemist's

business in Scotland, established in 1700 and located at 463 Lawnmarket, Edinburgh, has unfortunately now closed down and so a link with the old days is broken.

On 24th April, 1956, a plaque was unveiled in Glasgow to mark the site of the birthplace of James McGill, founder of the McGill University, Montreal. Fixed to the wall of a departmental store in Stockwell Street, the unveiling ceremony was performed by Dr. F. Cyril James, Principal and Vice-Chancellor of McGill University. Later the same day Dr. James named a school in Pollok after McGill and in future the school will be known as the James McGill Primary School. A copy of an early portrait of McGill which hangs in the entrance to the University in Montreal was presented by Dr. James on behalf of the Governors of that University to the Lord Provost of Glasgow for hanging in the school.

A plaque has also been fixed to the wall of the house at 22 St. John's Street, off the Canongate, Edinburgh, where Tobias Smollett lived with his sister, Mrs. Telfer, in 1766. The building has recently been restored and is now used as tutorial rooms for Moray House Training College.

A committee of the Catholic Hospital Association of the United States and Canada has selected Saint Januarius as the patron saint of blood bank services.

Dr. J. Menzies Campbell who arranged an exhibition on early dentistry in Glasgow in July, 1955 (previous Report, p. 4) later published a short account of the exhibition (*British Dental Journal*, 1955, **99**, 239). He also delivered a commemorative lecture on the life and work of Dr. John Smith (1825-1910) who was responsible for much dental reform and who inaugurated systematic teaching of dentistry one hundred years ago. The lecture was delivered at the Royal College of Surgeons of Edinburgh on 31st May, 1956. Professor Adam Patrick has published his Sydney Watson Smith Lecture at the Royal College of Physicians of Edinburgh in 1954 when he spoke on *The Enteric Fevers, 1800-1920* (1955). Mr. Thomas Gibson has published his paper on Zoografting which he read before the Society at its sixth annual general meeting (*British Journal of Plastic Surgery*, 1955, **8**, 234), and another on Delpech and his contributions to plastic surgery (*ibid*, 1956, **9**, 4). Dr. Guthrie's Logan Clendening Lecture, *From Witchcraft to Antisepsis*, has also now been published (1955). Dr. Armstrong Davison delivered the Frederic Hewitt Lecture to the Faculty of Anaesthetists of the Royal College of Surgeons of England on 3rd November, 1955, and it was subsequently published (*Anaesthesia*, 1956, **11**, 118). He also contributed a short paper on the shields of arms adorning the Council Room, Sutherland Hall and Museum of the Medical School at Newcastle-upon-Tyne (*University of Durham Medical Gazette*, June, 1956).

Books of interest to the medical historian which have been noticed since publication of the last Report include further members of the series on *The Medical History of the Second World War*, such as the *Army Medical Services: Administration*, vol. II (1955), the *Royal Air Force Medical Services*, vol. II (1955), and the *Royal Naval Medical Services*, vol. II (1956), and vol. II of the *Civilian Health and Medical Services* which deals with public health in Scotland, Northern Ireland, etc. (1955). Several biographies fall to be noticed such as *Munk's Roll*, vol. IV (1955), being the lives of Fellows of the Royal College of Physicians of London, 1826-1925. *Biographical Memoirs of Fellows of the Royal Society*, vol. I, 1932-1945 (1955) is the first of a new series in continuation of the *Obituary Notices of Fellows of the Royal Society*, vols. 1-9. There have also appeared the *Life and Work of Freud*, vol. II, by Ernest Jones (1955), *Sir William Arbuthnot Lane, Bart.*, by T. B. Layton (1956), *Sir John Bland-Sutton* by W. R. Bett (1956), *Hugh Owen Thomas* by D. Le Vay (1956), and *Octavia Hill*, by W. T. Hill, the last being a study of a pioneer of the National Trust and a housing reformer. Reprints or translations of older medical works demand attention. *The Boke of Chylidren* by Thomas Phaïre has been reproduced from the 1553 edition (1955), *Studies of the Cerebral Cortex*, by Ramon y Cajal (1955) has been reprinted, and *James Parkinson, 1755-1824*, contains a biographical memoir as well as a reprint of his essay on the shaking palsy (1955). *Galen on Anatomical*

Procedures has recently been translated with notes by Professor Charles Singer (1956).

Special histories are constantly appearing and some of these may be cited here. *Diseases of Occupations* by Donald Hunter (1955) has a most useful introductory section on the historical development of industrial medicine, *Prevention of Cruelty to Children* by Leslie Housden (1955) gives some revealing details of child life in Great Britain in past years as well as in the present. An authoritative *History of Local Government of the United Kingdom* by J. J. Clarke (1955) might be usefully supplemented from a medical historian's point of view by *A Short History of Public Health* by Professor C. Fraser Brockington (1956), an admirable and concise account of the history of public health in this country. Two Heath Clark Lectures have recently been published. These are *Man's Mastery of Malaria* by P. F. Russell (1955) being the lectures for 1953, and Professor H. E. Sigerist's lectures of 1952, *Landmarks in the History of Hygiene* (1956). This latter volume is particularly welcome betokening as it does the author's recovery from his recent illness. Sir Arthur MacNalty has also written, from a medical viewpoint, a book *The Princes in the Tower and other Royal Mysteries* (1956), and has contributed a series of articles to the *Nursing Mirror* (1956) on the maladies of some famous men and women of past ages. Dr. Maurice Davidson has written an interesting history of *The Royal Society of Medicine* (1955). Of more than passing interest to the medical historian is a history of the *Faculty of Actuaries of Scotland, 1856-1956*, by A. R. Davidson (1956). The centenary celebrations of this distinguished body were recently held in Edinburgh. Sir Zachary Cope has made a useful contribution to nursing history with his *Hundred Years of Nursing at St. Mary's Hospital, Paddington* (1955). In this, he deals not only with nursing progress at that hospital but also gives a short and succinct account of the history of nursing with developments in legislation and the formation of the Royal College of Nursing. Mrs. Cecil Woodham-Smith's biography of Florence Nightingale has now appeared in slightly condensed form in Penguin series (1955). A little book which deserves wider recognition is one recently brought to our notice though published in 1948. It is *The Growth of a Profession* by Jane H. Wicksteed, and is a history of the development of physiotherapy in Great Britain with special reference to the Chartered Society of Physiotherapy. Incidentally this Society celebrated its diamond jubilee in 1955.

For medical librarians *A Classification for Medical and Veterinary Libraries* by C. C. Barnard (2nd ed., 1955) has much to commend it. Dr. W. S. Mitchell has contributed the following bibliographical note.

"In 1950, Dr. Erik Waller, of Lidköping and Stockholm, presented to the Library of the Royal University of Uppsala, his renowned collection of works on medicine and science. The catalogue of the 21,000 items by Dr. Hans Sallander was published in 1955 by Messrs. Almqvist & Wiksell of Stockholm as *Bibliotheca Walleriana*, 2 vols., (price 175 Swedish crowns, approximately £13). The collection includes 150 incunabula and all the medical classics, including many of the greatest rarity. The first volume lists the early printed books and the medical and dental texts; in the second volume are the works on science, the history of medicine, biography and bibliography. There are also fifty-five plates of the outstanding items. Among the notable association copies may be mentioned books with the signatures of Vesalius, de Graaf, William Harvey, Thomas Sydenham, and John Hunter. The collection has been compared with those of Osler, Cushing and our own William Hunter, but it is larger than any of these. The catalogue forms a bibliographical tool of the greatest value for all who are interested in the history of medicine."

From the United States comes *A Short History of Medicine* by Professor Erwin H. Ackernecht (1955), a useful and well written primer. Also from American publishers are two Logan Clendening Lectures, *Galen of Pergamon* by the late George Sarton (1954) and *Leonardo the Anatomist* by Elmer Belt (1955), these two volumes constituting the third and fourth series. The fifth,

Dr. Guthrie's lecture, has already been noticed. The histories of two hospitals have also appeared, the *Mayo Clinic* by Lucy Wilder (2nd ed., 1955), and the *Presbyterian Hospital and the Columbia-Presbyterian Medical Center, New York, 1868-1943*, by A. R. Lamb (1955). *A Chronicle of the Development of Public Health in the United States, 1607-1914*, comes from the pen of Professor Wilson G. Smillie (1955) and a second edition of *An Historical Chronology of Tuberculosis* by R. M. Burke (1955) has also appeared. A readable and attractive history of the Food and Agriculture Organisation, *The Story of FAO* by G. Hambridge (1955) contains a wealth of information dealing with the technical assistance given to backward countries, pest destruction, co-operation with WHO and with local authorities in the prevention of such conditions as goitre, and of the teaching of nutrition and domestic science.

Grey's Hospital, Pietermaritzburg, South Africa, celebrated its centenary last year, and A. F. Hattersley has written an account of the hospital under the title *A Hospital Century* (1955). The life and work of *J. M. Charcot, 1825-1893* are discussed by Georges Guillian (1955), while from the U.S.S.R. a translation in English of Pavlov's *Selected Works* (1955) has appeared.

The first number of a new British quarterly called *Medical History* will appear in January 1957, and the editor will be Mr. W. J. Bishop who is already well known to medical historians. It is proposed that this journal should become the official organ of our Society, and reports of our meetings will appear regularly in its numbers. Special terms are offered to members of the Society who wish to take out this journal. The annual subscription will be £2 for members instead of the ordinary subscription rate of £2 10s. 0d. We feel sure that members of the Society will welcome this new journal and wish the editor every success.

The Twenty-Fourth Meeting **and Seventh Annual General Meeting**

The Twenty-Fourth Meeting and Seventh Annual General Meeting was held on Friday, 28th October, 1955, in the Hall of the Royal Faculty of Physicians and Surgeons of Glasgow, Dr. W. S. Mitchell, Vice-President, in the chair owing to the absence in the United States of the President. The Annual Report of the Proceedings of the Society was presented and unanimously approved. The Honorary Treasurer then reviewed the finances of the Society and intimated that a gift of one thousand pounds had been made to the Society by an anonymous donor. On the motion of Mrs. Menzies Campbell, seconded by Dr. A. Allan Bell, the President, Vice-Presidents, Honorary Treasurer, Honorary Secretary, and Members of Council were unanimously re-elected and Dr. W. P. D. Wightman elected a Member of Council in place of Professor John Craig who retired by rotation. The Revd. Dr. A. M. Gillespie then delivered his paper on

SOME PEEBLESSHIRE DOCTORS

With Special Reference to Mungo Park.

The Border country has long been noted for its doctors, such as Sir Walter Scott depicted in Gideon Gray, men endowed with high professional skill and always with a high sense of duty and rich humanity. In earlier days there were Dr. Reid of Peebles, and Dr. Anderson of Selkirk, whose doings have been recorded by the author of *Rab and his Friends*, Dr. John Brown of Edinburgh.

It occurred to me that a note on some Peeblesshire doctors might be of interest to members of the Society though the time at my disposal will not permit of more than a brief account of only four from a host of others.

The first of the four is Alexander Pennecuik of New Hall, M.D. (1652-1722), who practised as a physician in Peeblesshire where he had an extensive practice.



MUNGO PARK

The Council wish to acknowledge the kindness of the Editor, Scottish Geographical Magazine, for permission to reproduce the engraving and of Messrs T. & A. Constable, Edinburgh, for lending the block

doctor and left Edinburgh at the age of twenty-one, he went to London to seek employment in his profession, lodging with Dickson who gave him a letter of introduction to Sir Joseph Banks. Banks was a leading man of his time, had sailed with Captain Cook, been elected F.R.S. at the age of twenty-three, and had visited Newfoundland and Iceland on botanical expeditions. He was a founder member of the African Association. Through Banks's influence Mungo was enabled to obtain the appointment of assistant surgeon on the *Worcester*, an East Indiaman, in which he sailed for Bencoolen in Sumatra in February, 1792. On his return a year later, Mungo brought with him many rare and valuable specimens of plants which he presented to Banks. He read a paper to the Linnaean Society describing these and certain hitherto unobserved fishes which he had collected in the eastern seas, and he was made an Associate of that Society. These and other scientific observations made on the voyage confirmed Park in the friendship of Banks—a friendship which lasted till Park's death. Banks introduced Park into the society of all the eminent men of science in London and this no doubt stimulated his interest in scientific pursuits as distinguished from his own professional work. Park was described as being tall and handsome and a favourite wherever he went. His friendship with Banks and the latter's interest in the African Association were decisive factors in influencing Park's career.

At the end of the eighteenth century little was known about the interior of Africa. The African Association had been formed to promote discovery in the "Dark Continent." Herodotus had described a large inland river flowing from west to east named the Niger. The Nile was the only river issuing from the interior of the continent known to the ancients and it was concluded that the Niger was one of its tributaries, if not the Nile itself. Attempts had been made by Ledyard to penetrate the interior by way of Egypt but he had died at Cairo. Then Lucas made an attempt from Tripoli but he only got five days' journey south. Another, Major Houghton, had made an attempt by ascending the Gambia, but had died at Jarra. His fate remained unknown until ascertained by Park during his first expedition. Banks was largely instrumental in persuading Park to undertake a journey to explore West Africa and find the source and trace the course of the Niger. In May, 1795, Park sailed from Portsmouth on the *Endeavour* and, a month later, he arrived in the Gambia. He stayed at Pisania for six months with Dr. Laidley during the rainy season. Laidley had for many years been engaged in trading at this outpost, the trade consisting largely of slaves, gold, ivory, gum and such like. During his stay at Pisania, Park learned the Mandingo language and observed the customs and manners of the people. On December 2, 1795, Park set out eastwards into the interior. An obelisk now marks the spot on the banks of the Gambia where Pisania once stood.

Park was mounted on a horse and his two African servants on asses. They carried a quantity of beads and amber to be used in exchange for food and other needs on the journey. Their equipment consisted of an umbrella, sextant, compasses, a thermometer, two shot guns and two pistols as well as two changes of clothes. Park wore the same clothes for this expedition as he wore at home and he must have presented a strange sight. At first he was well received but later, when he reached the country of the Moorish tribes he endured much hardship, and sickness due to malaria. He was robbed and imprisoned and treated with great indignity and cruelty. In July, 1796, he escaped from the Moors and continued on his journey, finally reaching Segu on the south bank of the Niger where he was hospitably treated by a negress. As he rested there her daughters and she sang the following song while they sat spinning their cotton :

"The winds roared and the rains fell,
The poor white man sat under our tree ;
He had no mother to bring him milk,
No wife to grind his corn,
Let us pity the poor white man,
No mother has he."

Park crossed the Niger and travelled along the north bank eastwards to Sansanding where he again fell into the hands of Moors. At last, worn out and emaciated, clad only in rags, he was forced to turn back at Silla. On the return journey he traced the course of the Niger westwards towards its source as far as Bammaku. Here he was well received but, after leaving, he was once again attacked and stripped of his clothing. One of the robbers, however, threw him his hat, shirt and trousers as being of little value, but Park was delighted beyond words for in the crown of his top hat were concealed his precious notes. Eventually he reached the Gambia but ill fortune continued to dog him though he finally obtained a passage on an American slave ship bound for the plantations. It was so unseaworthy that he was landed at Antigua in the West Indies where he was lucky enough to get a British boat home, reaching Falmouth on December 22, 1797, after an absence of two years and seven months.

In London he wrote an account of his travels which was published in 1799. He then returned to Foulshiels where he arrived late at night. There is a story told that his mother always kept the cottage door unlocked in case her son should return at night. Hearing the door open, she called out, "Is that you, Mungo?" He replied, "Yes, it's me, Mother," and she turned over and went to sleep again.

In the same year in which his travels were published, Park married the daughter of his old master, Thomas Anderson, and shortly afterwards he settled in general practice in Peebles. His house still stands in the Northgate there, but the site in the High Street on which his surgery stood is now occupied by the Waverley Hotel. He did not take kindly to general practice in the hills and valleys around the town and never really settled down. He became friendly with Professor Adam Ferguson, Colonel Murray and (Sir) Walter Scott when residing at Peebles.

In 1803, the Secretary of State for the Colonies approached Park with a proposal that he should lead another expedition to West Africa. Glad to escape the tedium of practice he willingly accepted and, after much delay, during which time he studied Arabic with a Moor whom he brought back to Peebles with him from London. This Moor created quite a stir among the people of the town. Later when Park and his family returned to Foulshiels he spent a great deal of his time with Scott to whom he confided, "I would rather go back to Africa than practise again in Peebles."

Eventually, in January 1805, Park set out for the Gambia in the *Crescent*, accompanied by his brother-in-law, Alexander Anderson, also a surgeon, and George Scott, an artist from Selkirk, and the party arrived at Goree on March 28. Here Lieutenant Martyn and thirty-five soldiers of the garrison were enlisted for the expedition along with four carpenters, and continuing the voyage, the *Crescent* finally arrived at Jillifree on the Gambia on April 9. After purchasing asses as pack animals at Kayee, the expeditionary party set off eastwards into the interior. It must have been a strange sight, Mungo Park and his companions in the garb of the time with top hats and the soldiers in red coats. It took them four months to reach the Niger which they did on August 9, but by this time more than three quarters of the party, including Scott, had died on the march, succumbing to the dreaded fever which prevailed during the rainy season. On August 22, the survivors embarked on a canoe at Bammaku and, after a short stay at Segu, they proceeded downstream to Sansanding where they built a special ship which Park named His Britannic Majesty's schooner *Joliba* and hoisted the British flag. Anderson died at Sansanding on October 28, Park writing that "no event that took place during the journey ever threw the smallest gloom over my mind till I laid Mr. Anderson in the grave. I then felt myself as if left a second time lonely and friendless amidst the wilds of Africa."

Here the account of Park's second journey really ends. Isaaco the guide had completed his engagement and he returned to the coast with Park's journal and several letters, among which that dated November 17, 1805, addressed to Lord Camden, Secretary of State for the Colonies, contains the following report: "I

am sorry to say, that of forty-four Europeans who left the Gambia in perfect health, only five at present are alive—namely, three soldiers (one deranged in his mind), Lieutenant Martyn, and myself. From this account I am afraid your Lordship will be apt to consider matters as in a very hopeless state ; but I assure you I am far from despairing. With the assistance of one of the soldiers, I have changed a large canoe into a tolerably good schooner, on board of which I this day hoisted the British flag, and shall set sail to the coast, with the fixed resolution to discover the termination of the Niger, or perish in the attempt. I have heard nothing that I can depend on respecting the remote course of this mighty stream, but I am more and more inclined to think it can end no where but in the sea.

“ My dear friend Mr. Anderson, and likewise Mr. Scott, are both dead ; but though all the Europeans who are with me should die, and though I were myself half-dead, I would still persevere, and if I could not succeed in the object of my journey, I would at least die on the Niger.”

Having laid in a stock of provisions the small party set off down river past the town of Timbuctoo. At Yaour the new guide Amadi left them and they continued the voyage. At Boussa, they were attacked by natives at a point where the river narrows at a series of rapids, and all except a slave were drowned. This tragedy occurred towards the end of 1805, the year of Trafalgar and Austerlitz.

Park's journal gives an accurate account of all he saw and is full of interest, scientific and general. It was not until 1830 that Richard Lander and his brother, John, travelling overland from the coast at Badagry, near Lagos, reached the Niger and descended to the sea and so completed the work of Mungo Park, “ the first European to navigate the Niger ” (Dubois).

Park has been adversely criticised for not condemning the slave trade (the campaign for abolition of the trade being then in full swing), but it is only fair to point out that he did do so, although he took no active part in the controversy that raged at home.

The third doctor who deserves mention is Clement Bryce Gunn. Born in 1860 in Edinburgh where his father was a journalist on the staff of the “ Edinburgh Evening Courant,” he was only five months old when his father died. His mother had a struggle to bring up her family but all did well and Clement graduated at Edinburgh University in August, 1882. After an assistantship at Newport in Fifeshire where he met his future wife, he settled in practice in Peebles where he spent the rest of his life. In the midst of a busy practice in a sparsely populated countryside he found time to write the story of the Peeblesshire churches, a task involving an enormous amount of work and minute examination of church records, but it was for Gunn a labour of love. During the latter part of his life he kept a diary and Miss Rutherford Crockett, daughter of S. R. Crockett, has published extracts from it in her book *Leaves from the Life of a Country Doctor* (1935), a delightful story of a man, greatly beloved and whose memory is cherished by the older generation. Among others of Gunn's literary activities are modern translations of old Scottish vernacular poems, such as *The Three Priests of Peebles*, *To Peebles to the Play*, and a compilation, *The Book of Remembrance of Peebles* which contained a photograph and a biographical sketch of each local man who died in the War of 1914-18.

Gunn was a naturalist of some distinction also. As a physician he upheld the highest traditions of the medical profession and truly earned the name of the beloved physician among his patients. Unlike Mungo Park, he loved the beautiful hills and valleys around Peebles and was well content to spend his days there.

The last of the four doctors of whom there is time to speak is Neil MacVicar, born at Manor House on August 1, 1871. He was miserable at school and longed for the day when he could go to sea, but instead, at the age of fourteen he was apprenticed to a firm of Peebles solicitors with whom he completed his legal training. Being interested in Africa, he studied at home in his spare time, and, having passed the University Preliminary Examination, he commenced the study of medicine at Edinburgh. There he had a brilliant career and graduated with honours in 1894, the best student of his year. He interviewed H. M. Stanley when

the latter visited Edinburgh, indeed he sought out anyone whom he could who had experience of Africa. After acting as assistant to Clement Gunn at Peebles for a short time, MacVicar was appointed to the Mission at Blantyre in Nyasaland. Owing to certain reservations in his mind concerning the Church's doctrines, it was made a condition of his appointment that he would confine himself entirely to his medical work. It is interesting to note in passing that similar restrictions were placed on Dr. Albert Schweitzer by his society. The committee at home omitted to tell those in charge of their work at Blantyre of the condition they had imposed on MacVicar and, when his first tour of duty was completed, it was requested that someone else should be sent out in his place, one who would be able to share in the religious work. The Principal of Lovedale, the Revd. Dr. James Stewart, realised how well fitted MacVicar was to become medical superintendent of the Victoria Hospital there and persuaded those at home to appoint MacVicar. He arrived there in October, 1902, accompanied by his wife, who, as Miss Jessie Samuel, had lately been assistant matron of Glasgow Western Infirmary, and matron of the hospital at Blantyre. They were an ideal team and spent the remainder of their working years at Lovedale, retiring in 1937.

MacVicar was one of the outstanding medical men in South Africa and was a pioneer in introducing hospital services for the Bantu, in training African nurses and doctors, and in instituting health teaching and literature for the non-European community of South Africa. Sir Edward Thornton wrote of him, "He has started a health movement that nothing can now hold up." Six times the Victoria Hospital was enlarged while under his care and he played a major part in setting up the great Central Native College and Medical School at Fort Hare. The Public Health Department of the Union Government, in 1940, named the spacious "MacVicar Tuberculosis Hospital" as a tribute to his great work. MacVicar was a prolific writer, and for long edited a quarterly health magazine in three languages, English, Sotho and Xosa. His inauguration of training schemes for African women to become nurses was a very great step forward.

While MacVicar's achievements in regard to his medical work were great, more notable was the man himself. His humility, courage, selflessness, candour, and the range of his intellect made him for almost fifty years one of South Africa's most distinguished men. "Life," he once said, "is measured by output, not by intake, by the warmth radiated, not by the warmth absorbed." The romantic story of his life (he died in December, 1949) and the work he accomplished have been told by Shepherd (1953).

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Dr. Gillespie's paper was illustrated with photographs, books, and maps on which he traced the travels of Mungo Park and the spheres of activity of Neil MacVicar.

The Twenty-Fifth Meeting

The Twenty-Fifth Meeting was held in the Lecture Theatre of the Royal Society of Edinburgh on Saturday, 25th February, 1956, the President in the chair. Immediately preceding the formal business of the Society, luncheon was taken and the presentation made to Dr. Guthrie, to which reference has already been made. Dr. Hugh W. Y. Taylor read a paper on

JOHN GOODSIR.

To make the acquaintance of John Goodsir in his youth we must hie ourselves to the Kingdom of Fife, remembering as we go that both Sibbald and Pitcairn, true sons of Fife, had already written their names on Medicine's Roll of Honour.

Goodsir's father was a doctor in the real old sense of that term in the township and port of Anstruther. John, born in 1814, was the first of five sons and one daughter. Of his brothers, Harry joined him later in Edinburgh, and together in 1845 they published a book entitled *Anatomical and Pathological Observations*. Harry died that same year on the Franklin Expedition to the Arctic Circle. Robert, who qualified as a doctor, sailed twice to the Arctic in a vain attempt to discover Harry. The youngest brother became a medical student but died before completion of his course. Joseph, a minister of religion, and Jane his sister, finally settled down in Edinburgh with John who remained unmarried.

The grandfather, also named John, was well known in the East Neuk of Fife, his essays, recorded in Duncan's *Annals of Medicine* having gained a reputation for him in Edinburgh circles. The Monros of anatomical fame in Edinburgh, Forbes of Culloden, and the Gregorys of Aberdeen, were related to the Goodsirs whose family, writes Lonsdale, "had armorial bearings and a capital motto—VIRTUTE ET FIDELITATE." Certainly the life of John Goodsir fitted admirably into the meaning of this motto.

His early education was partly dependent upon attendance at the local school, but "his self-education went along with his academical and received every encouragement at home." The *Encyclopaedia Britannica* was his reference book. The lad read widely and also explored the shores of Fife and its hinterland "in quest for forms of life, plant and animal." A flair for marine zoology never left him. It opened the doors of a memorable friendship with Edward Forbes.

His artistic mother developed in him a strong love of Art for Art's sake, and, by teaching him to draw, laid one of the foundations which made him a successful lecturer. Having a mechanical bent for "making things" he improvised a laboratory equipped, amongst other things, with a turning lathe. Here he studied the steam engine and made experiments in chemistry. His own brothers gave him the nickname "Mathematical-chemical Jock." Professor Syme of Edinburgh, called in as a consultant by his father, saw John handling calculi. He asked him about the chemical composition of these and received the correct answers, a fact which earned a word of commendation that young Goodsir never forgot.

Sent to the University of St. Andrews at the age of thirteen he "went through the regular curriculum required for a degree in Arts." And as part of that curriculum he sat at the feet of a fellow townsman considerably his senior, the famous Dr. Thomas Chalmers, Professor of Moral Philosophy, a noted leader of the "Disruption."

The transition from Fife to Edinburgh was made easy, on the financial side, by the plan which Nasmyth, the well known dentist whose name is still associated with a certain dental membrane, submitted to Dr. Goodsir at Anstruther that John should be apprenticed to him for five years without fees. John was sixteen when he ferried across the Forth in November, 1830, to matriculate as a student of the University. The Edinburgh of one hundred and twenty-five years ago revelled in a climate of stimulating thought. She basked in the sunshine of a new period of learning and achievement which men like Jeffrey, Scott, Cullen, Black, Monro, Syme and many others had brought to her. Young Goodsir with a mind disciplined and enriched by the study of the Humanities and already an original investigator of Nature's secrets in biology and chemistry soon found himself under the spell of Robert Knox, the famous extra-mural teacher of anatomy and the unsuspecting prototype of Bridie's play, *The Anatomist*.

The five years' agreement was cancelled, without acrimony, after two years of dental training, and Goodsir joined the ranks of those who aspired to be surgeons. By this time his ideal was John Hunter, famous as an anatomist,

physiologist, pathologist, and above all in the minds of many of his colleagues as a surgeon. At a later date it was a bitter disappointment to Goodsir when his acquisition of the Fellowship of the Royal College of Surgeons of Edinburgh failed to open for him the surgical theatre doors in the Royal Infirmary.

Freed from the use of dental equipment, which is summed up by Lonsdale as "smith's forges, brass furnaces, and sand-grinding stones" he turned his attention to the anatomy of the dissecting room and also found time to include the study of surgical and pathological anatomy. It is on record that he made plaster casts of all his dissections in order to possess a permanent record of them. His university museum catalogue, written in manuscript, contains entries of models made by him from ulcerated limbs of living patients. Lonsdale, who knew him well, writes that "he completed his work at the bedside of the patient in the wards of the Royal Infirmary." Knox and other teachers, noticing his skill, gave him normal and pathological specimens to mount and preserve. Although parted from Mr. Nasmyth he made a collection of normal and pathological teeth for him. In 1838, as one of the young graduates returned from Fife, he produced his first paper of note. *On the Origin and Development of the Pulps and Sacs of the Human Teeth*. This was read at the Meeting of the British Association in London and was recognised as a masterpiece by the leading authorities on this difficult subject.

Constant association with Knox broadened Goodsir's conception of the place of comparative anatomy in the scheme of life and in the curriculum of teaching. This included Knox's observations on the various forms of the human cranium and on the early history of the races of men. These two men respected and kept in touch with each other for many years. As late as 1852 Goodsir wrote to Knox a letter which contained this passage "I assure you I have always been deeply grateful to you as my teacher, and I have always, in public as well as in private, expressed myself to this effect, and shall not less continue to do so henceforward. I have strongly recommended your book to my pupils."

But the man who entered most fully into the affections and life of Goodsir was the fellowstudent he met in Knox's rooms, Edward Forbes. This brilliant youth radiated a boyish sense of fun which broke through both his own and Goodsir's serious moods. As kindred spirits in the exploration of comparative anatomy they hunted the shores of the Forth, sailed upon its waters, and dragged the depths off the Shetland Islands. As hunters, collectors, and dissectors, these two spent many hard working but happy hours in the task of comparing and identifying the specimens they brought to Lothian Street where they lived together. It ended in Forbes being regarded as probably the leading authority on Marine Zoology and in his appointment to the Chair of Natural History in Edinburgh.

When Goodsir as a qualified surgeon joined his father's practice, he found time to create a natural history museum. This meant enlarging his already considerable collection of strictly anatomical and pathological specimens. So busy was he accumulating the skins and skeletons of various fishes that his friends thought he was about to lose himself in ichthyology. From neighbouring quarries he secured fossil fishes and displayed them in their proper classification. The knowledge of crania imparted to him by Knox was of considerable use in identifying the salient points of a skull found in a barrow in Fife. His ability to point out pathological lesions on it gained him a reputation which led to crania being brought to him from several interesting graves, including one of the "Royal Stuarts."

He read a number of essays on Natural History to the Society of that name in St. Andrews. One of these on cilia was related to the fact that the sea front at St. Andrews was rich in *ciliata*. He also spent considerable time and talent in describing the possible species and genera of fossil fishes found in Fife and gave provisional names to several of these. In this branch of palaeontology he not only became well informed but also shewed considerable initiative. For the inspection of the St. Andrews Society he submitted specimens of two species found by Edward Forbes in company with his brother Harry on the east sands of

St. Andrews. Harry, during his short lifetime, had collected, preserved, and catalogued all the animals he could find on the foreshore one mile on each side of Anstruther.

Goodsir's activities on Cephalopods, cuttlefish, and other forms of sea life ended in an expedition with Forbes to Shetland and Orcadian waters. Their findings were communicated to the British Association, and included one new species. To stimulate interest in their subject both Forbes and Goodsir delivered lectures in Fife including St. Andrews. Goodsir's next step was to study the habits of animals. This he did by securing a golden eagle, a seal, the great king-crab, and a number of other animals.

After five years as an assistant general practitioner and free lance scientist Goodsir returned to Edinburgh. Forbes had preceded him and had kept in constant touch with him. By this time the presence of Harry in his father's practice had made it possible for John to make this return to the capital. Two offers were before him. Knox wanted his assistance in anatomy, and the Dean of the Medical Faculty had asked him to consider the Conservatorship of the University Museum. The Goodsir who returned in 1840 is described by Lonsdale in these terms "He was now in the strength of his adolescence, and presented a tall, gaunt frame, whose height (75 inches) towered above all his friends. There was a grave if not sombre tone in his looks, increased by his brown hair combed downwards over his capacious forehead, his stooping shoulders, and downcast visage. Walking along the street he seemed entirely absorbed in his own thoughts. He possessed intellectual superiority and was not without ambition to display it. His hands, colossal in size and muscular power and not less fine in delicacy of action, were fitting instruments to his brain and often in happy co-ordination with its manifold manifestations."

Goodsir and Forbes saw much of each other during this time and read a joint paper before the British Association Meeting at Glasgow.

Encouraged by Professor Jameson, Professor of Natural History in Edinburgh, Goodsir joined the Wernerian Society which was devoted to Natural History. He contributed fifteen papers within six years. His first one bears the title *On certain peculiarities in the Structure of the Short Sunfish as observed in a large specimen captured in the Firth of Forth, near Alloa*. Two others have general interest, *The natural features of the Dornoch Firth* and *On the vast accumulation of minute marine animals which precede the appearance of a herring shoal off the Isle of May*.

He joined the Edinburgh Botanical Society in 1841, became Secretary in 1842 and Vice-President in 1848. To this Society he submitted papers on the fungus found on the gills of gold fish, on *sarcina ventriculi*, and on the potato disease.

As a student in 1833 he had joined the Royal Medical Society but had contributed nothing to it. Now, in the year 1840, he read his dissertation entitled *Changes produced in the caecum by ulcers and abscesses*. In the following year he read a paper on continued fever and was elected Senior President of the Society. In the same year he became President of the Anatomical and Physiological Society. One of his communications to this Society dealt with his conception of the structure of the liver and kidney.

In 1841 he also became a member of the Royal Physical Society and submitted papers on the Development of the Skeleton in the series of Invertebrate Animals. In 1849 he was elected one of the three Senior Presidents of the Society.

The key to all this intense intellectual activity, apart from his natural endowment of brains and character, appears to lie in the fact that Goodsir had been appointed to the Conservatorship of the Museum of the Royal College of Surgeons in April 1841. In presenting his claims for the post he exhibited his collection of 400 specimens which included human, comparative, and pathological anatomy. Barclay's collection on comparative anatomy was already there along with the pathological and anatomical collections of Bell and others. With access to this large museum he was able to observe, compare, and classify

as few men could. And it was in the interests of the museum that he should be in touch with the Societies which were interested in material conserved by such collections. In passing it is well to remember that in 1825 Knox had already classified the natural history series of this museum.

Instead of giving papers and lecturing outside the museum Goodsir proposed to the Committee of Curators that he should be allowed to lecture in the museum, using the preparations there to illustrate his course of lectures. The result was a course of 12 lectures in the museum itself. This venture opened the way to higher posts of responsibility. "The élite of the medical profession," writes Lonsdale, "came in the hope of getting information and a new breadth of view from the Curator. It gave him an opportunity of practising public speaking and of demonstrating his wide knowledge of the subjects chosen, and of shewing his own appreciation of the collection of preparations, his knowledge of the higher anatomy and his own application of this knowledge to surgical anatomy. At the end of the lecture course Professor Syme, with whom he had served during his clinical training as dresser and assistant, moved a vote of thanks saying that the lectures had been highly instructive and valuable."

Before the summer of the following year Goodsir had added 49 new specimens to the museum collection, 29 of these being pathological and the rest dealing with comparative anatomy. His proposal to admit students on Saturdays to see his demonstrations was accepted. The demonstrations took on the character of lectures resembling those given to the doctors and professors.

The advent of the microscope found Goodsir in the forefront of those who set out on the road to new discoveries using this as their guide. It was not long before he was producing thought-provoking observations on cell life and suggesting the role played by them in certain tissues of the body. Take, for example, his essays on the *Structure and Economy of Bone*, the *Mode of Reproduction after the Death of the shaft of a long bone* etc., all of which shewed that he had mastered the elementary facts about nuclei and the multiplication of them. His investigations of cell life were appreciated by his colleagues both in Britain and on the Continent where Virchow "dedicated his text book on Cellular Pathology to John Goodsir as a slight testimony of his deep respect and sincere admiration." According to Lonsdale both Goodsir and Virchow "held the cell to be the ultimate morphological element in which there is any manifestation of life, and that the seat of real action must not be transferred to any point beyond the cell."

In 1843 Goodsir accepted the invitation conveyed in writing from Professor Syme to accept the post of Curator of part of the University Museum. This was possible because his brother Harry succeeded him in the Curatorship of the Museum of the Royal College of Surgeons. And when Harry set out with the ill-fated Franklin Expedition his brother Archie acted as *locum tenens* until a suitable person was found.

In 1844 John was appointed Demonstrator of Anatomy to Monro *tertius* and in 1845 became the Curator of the whole University Museum. When Monro *tertius* retired from the Chair of Anatomy in 1846 John Goodsir was the first applicant for the vacant position. Professor Sharpey of London University, himself an Edinburgh graduate, was willing to have his name put forwards by his friends. But when the latter approached Goodsir about the possibility of him withdrawing his name the reply was that he would withdraw for none except Professor Owen.

His main concern on occupying the Chair was to put the teaching of the subject on a sounder basis. His plan to extend and improve the dissecting rooms and to employ an active staff of demonstrators and assistants proved successful. It took him five years to organise his plans fully, which included microscopic demonstrations. But the system of teaching finally produced was regarded as the best in any British medical school.

His relations with the students are expressed by Lonsdale in these words. "The more intelligent members of the anatomical class have always spoken in

exaltation of the philosophical teachings of the Professor and maintained that his published writings afforded no clue to his oral teaching. His lectures were like finished work from a master's hand. It was an intellectual treat to see the building up from day to day of a beautiful scientific structure upon an anatomical basis. His teaching, like true art, embellished and adorned his work. The large majority seem to have been inspired by the constancy of purpose and love of science that possessed the Goodsir breast."

His opening lecture to the students in 1846 was *On the Progress of Anatomy*. It gave a full review of the work done by the important leaders of the previous one hundred and twenty years. Not only did he refer to men like *Monro secundus*, Hunter, and Cuvier, but also paid a tribute to *Monro tertius*. "My own immediate predecessor in this chair," he said, "acquired the prevailing taste for general and morbid anatomy which shewed itself in his *Morbid Anatomy of the Stomach and Gullet, and of the Brain*. The former, especially, from the learning and sound discrimination which it exhibits has become a standard work in the literature of our profession." His tribute to the work of Barclay was very warm and sincere, but, strangely enough, he merely mentions Knox as having translated a work by Bécclard into English.

His output of original work was considerable and, more and more, influenced contemporary thought as his fellow workers in Britain and on the Continent began to realise the scientific acumen which lay behind his observations and which were so ably demonstrated by dissected specimens and accurate drawings. We present day Scots may well smile as we try to identify ourselves with what Goodsir told his class during the lecture on *The Progress of Anatomy*. "At the risk of becoming obnoxious," he said, "to the charge of nationality I cannot but observe here that the physiological basis of the second *Monro*, the peculiar character of the views of Whytt, Cullen, and Brown, and the physiological and pathological principles of John Hunter, all fellow countrymen, in accordance with that tendency to abstract speculation which characterised a large section of the Scotch philosophers of the period, was destined to exercise on Continental Medicine as great an influence as the Scotch school of philosophy and metaphysics, which took its rise early in this period, has exerted on those abroad."

That he was really in touch with what was happening abroad is shewn by the description given by Lonsdale of his visits to the Continent. "He had frequently commissioned his pupils or friends visiting the continent to pick up all the novel apparatus applicable to anatomy and physiology; and in 1859, between the winter and summer sessions, he visited Paris solely for the purpose of obtaining "philosophic" apparatus. In the autumn of the same year, and for a similar object, he visited Leipsic, Dresden, and Vienna. He, of course, spent much time in the museums, and talked with all the men of eminence. He was greatly pleased with the city of Prague, and not least with what he saw in the dissecting rooms there which he considered worthy of being adopted at home. These frequent visits to the continent enabled him to purchase a complete collection of physiological apparatus. He was the first to introduce these very costly instruments to Scotland, and for his own private research and instruction."

The term "philosophic apparatus" sounds strangely to our modern ear. But we must remember that the study of Philosophy formerly included in its wide scope all knowledge, even that of scientific apparatus. After a description of Goodsir's beliefs Lonsdale concludes "For, with all his nationality and large inheritance of the Scottish covenanting spirit, he was too broad in his beliefs, and too zealous for freedom of thought, not to see the need of some qualifications to the doctrinal, dry, and dogmatic standards ruling the religious denominations if not the ethics and philosophical teaching of Scotland. Oxford had its pleasant retreats for the aged literati or those who had earned a philosophical status within its academic halls." Evidently he considered that John Goodsir had also earned a philosophical status because of the scope and depth of his knowledge.

In 1868, one year after Goodsir's death, the Anatomical Memoirs in two volumes, dealing with his career and recording many of his outstanding scientific contributions, appeared. We Scots are for ever grateful that this task fell into the understanding and competent hands of two Sassenachs, Lonsdale his contemporary, and William Turner, his senior lecturer and successor. The latter was with him from the year 1855 until his death in 1867. During those years he learned not only the outlook but also many of the skills of Goodsir. The Anatomy Museum in this city of Edinburgh stands as a memorial not only to the genius of the second Monro and to the skill and indefatigable toil of Goodsir but also to the ability and worth of Turner.

A few of the papers delivered by Goodsir and recorded in the Memoirs by Turner may be sufficient to give us a glimpse of the scope of Goodsir's investigations both in youth and in manhood. Under the heading of Comparative Anatomy there occur the following subjects, *On the Anatomy of Amphioxus lanceolatus*, *On certain peculiarities in the structure of the Short Sun Fish*, *On Gymnorhynchus Horridus*, *a new Cestoid Entozoon*, *On the Structure and Economy of Tehea*, *On an undescribed form of Gasteropod Mollusk from the Firth of Forth*, *On the Natural History and Anatomy of Thalassema and Echiurus*, *On Pelonaia*, *a new Genus of Tunicated Mollusks*, with description of two species and so on for an additional thirty-six papers, the majority of which deal with human anatomy. As Lonsdale aptly put it "He lived only for science and unquestionably died in its service."

The remains of John Goodsir were interred next to the grave of Edward Forbes in the Dean Cemetery in Edinburgh. Many personal friends joined the procession to the burial ground, a spontaneous tribute from Professors, Lecturers, Fellows of the Royal Colleges and some two hundred students.

In this short appreciation of John Goodsir much has been omitted, such as his connection with the Veterinary College, his interest in the poets and writers of eminence and his membership of the select club The Universal Brotherhood of the Friends of Truth whose ideal was the interpretation of Truth. His fertile brain ranged over many subjects. But he kept on returning to the Broad Highway of Comparative Anatomy which led him to a deeper understanding of Human Anatomy and a new assessment of the inner meaning of Life. It may not be inapt to suggest that the mantle of John Goodsir, without perhaps, his essential optimism, fell on the late Professor Wood Jones. Listening to him and reading his books—of which the last was entitled "Trends of Life"—one gained the impression that once again Comparative Anatomy closely linked with Human Anatomy was a living, composite force in the medical world, a force clothed with the dignity and strength of simple, lucid English in which Goodsir also revelled.

Charles Darwin preceded John Goodsir by five years as a medical student at the University of Edinburgh. "As I was doing no good at school, my father wisely took me away at a rather earlier age than usual and sent me to Edinburgh University with my brother where I stayed two years or sessions. The instruction at Edinburgh was altogether by lectures, and these were intolerably dull. . . . Dr. Monro made his lectures on human anatomy as dull as he was himself and the subject disgusted me. . . . During my three years at Cambridge my time was wasted as completely as at Edinburgh and at school. . . . The voyage of the Beagle has been the most important event in my life and has determined my whole career." So wrote the man who, in Goodsir's time, started a ferment in the scientific world and possibly more so in the religious world with the publication of *The Origin of Species* in 1859. Goodsir's reaction to this publication is partially seen in the steps he took to influence the mind of the medical student. His class of students of Anatomy, which invariably numbered hundreds, looked to him as a lecturer and a friend. His clear exposition of every subject, the erudition and craftsmanship which accompanied it, combined with his obvious honesty, kindness, and earnestness led to respect and affection. It was for their sakes that he delivered ten lectures on the *Dignity of Man* a few years after the

publication of Darwin's book. This he did in an attempt to counterbalance the undignified deductions about man and the tendency in contemporary thought to overemphasise the merely physical implications of Darwinism.

John Goodsir was born in Anstruther in 1814 and buried in Edinburgh in 1867. He is largely forgotten because he died nearly ninety years ago. But it should never be forgotten that in this city of Edinburgh he rescued the Science of Anatomy from the gutter of ignominy into which it had fallen in the eyes of the public because of its association with the crimes of Burke and Hare. Before his death all men knew that it had been restored to its former shining position amongst the sister sciences. That fact was due very largely to the genius and character of John Goodsir.

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The lecture was illustrated with lantern slides, and the microscope and tools used by Goodsir were on display along with plaster casts and other preparations made by him and his assistants.

The Twenty-Sixth Meeting

The Twenty-Sixth Meeting took place at Linlithgow on Saturday, 16th June, 1956. Members and guests met at the Star and Garter Hotel for lunch. Among the guests present were Sir Arthur MacNalty and the Revd. C. N. Rutherford, Minister of St. Michael's Church, Linlithgow. After lunch, members and guests, led by the President, were conducted round the Palace before entering St. Michael's where Mr. Rutherford gave a short description of the church where members were greatly impressed with the beautiful reredos and elders' stalls which had only recently been dedicated. Mr. Rutherford has kindly sent us the following notes which comprise the essence of his remarks at the meeting.

"The time was when the loch at Linlithgow was larger than at present and the level of the water higher. The site occupied now by Palace and Church was an island and at its highest point stood a pagan altar surrounded by a grove of trees. There, in the early Christian times, came a disciple of St. Ninian from Whithorn. He built his first church where the altar had been and called it St. Michael's, remembering that St. Michael was the leader of the hosts of light against darkness. From that early beginning one building has followed another, but there has been continuous Christian worship until the present day."

"The nave of the present building was dedicated on May 19, 1242. The chancel followed and later still the tower, and the apse in 1531. So complete an example of the builder's art could not long escape the rough hand of the vandal. The "rascal multitude" urged on by John Knox's inflammatory eloquence but immediately beyond his control, invaded St. Michael's and destroyed its carvings and tapestry. Cromwell's Independents built a wall to divide chancel from nave, later Town Councils with misguided zeal destroyed the Crown and tore out the oaken ceiling. Wanton disfigurements of the building were brought to an end only less than a century ago, when a new project arose to bring back so far as possible the early splendour of the building. This was effected in part by the

Great Restoration of 1896, and something of what Dr. Ferguson was unable to do has been achieved recently. Lighting and heating have been installed in keeping with modern requirements, and at last the apse which had long remained bare has been completed with its raised stone floor, green carpet and elders' stalls. On the east wall a gold cross is set in the centre panel, with the Royal Arms and the Lion Rampant on either side. Farther to each side are displayed the Burgh Arms and the Saltire. The most distinctive feature of this new work is the figure of St. Michael in the act of slaying the dragon. The carving has been done from one selected piece of timber, and its youthful figure carrying the white shield and red cross makes a stirring focal point with its gold, blue and silver colouring.

"It is to be remembered that in spite of so much rough handling from which the building suffered the light of piety and learning was never quenched. Throughout the later Middle Ages the Linlithgow Song Schule became noted. The General Assembly of the Church of Scotland met in St. Michael's in 1606 and again in 1608. Edinburgh University came to Linlithgow and St. Michael's to escape the plague in the city, and the Stuart kings of Scotland made the church their customary place of worship. A copy of the National Covenant of 1638 was brought to Linlithgow and signed in St. Michael's by the minister, people and notables of the Sheriffdom.

"St. Michael's has been the object of many generous gifts. The old altar plate and furnishings which had been lavish, all disappeared at the Reformation. The congregation is now, however, in possession of beautiful silver Communion vessels—chalices and pattens. The colours of local regiments hang in the chancel. And the latest gift is the handsome Alms Dish recently presented by Her Majesty Queen Elizabeth to commemorate her visit with the Duke of Edinburgh on 2nd May, 1955."

Following the visits to the Palace and St. Michael's Church, members and guests returned to the hotel where a paper was read by Dr. M. H. Armstrong Davison on

THE MALADIES OF MARY QUEEN OF SCOTS AND HER HUSBANDS

Mary was born at Linlithgow Palace on 8th December, 1542.* There were contradictory reports of her birth : that she was premature, that she was a boy, that she was sickly, and so on. There was no truth in any of these stories, but her heredity was poor. Her mother, Mary of Lorraine, after whom she took to a considerable degree, was to die of dropsy at the age of 44. She had already borne Mary's father two sons, one of whom had died at about one year of age, while the other had succumbed when only eight weeks old. James V, Mary's father, died a week after her birth, being only 31. He had always been somewhat eccentric, and it is said that the rout of Solway Moss turned his head. He became melancholic, and, in a short space, he "turned him upon his back and looked and beheld all his nobles and lords about him, and gave a little smile of laughter, thereafter held up his hands to God and yielded up his spirit."

The first reliable account we have of Mary as a baby comes from Sadler, the English Ambassador, who saw her when she was three months old. Mary of Lorraine said to him, "The Governor [that is, the Earl of Arran, heir presumptive to the throne] said that the child was not like to live, but you shall see whether he saith truth or not," and "therewith she caused me to go with her to the chamber where the child was, and shewed her unto me, and also caused the nurse to unwrap her out of the clothes, that I might see her naked. I assure your Majesty it is as goodly a child as I have seen of her age, and as like to live, with the grace of God." Thus Sadler wrote to Henry VIII in March, 1543. On 2nd July, he was informed that she could not be removed from Linlithgow to Stirling, as she was "breeding of teeth," but on the 26th July she was removed thither for

* Dates are altered where necessary to conform to the modern usage of a year ending on 31st December.

safety's sake, and Sadler saw her again on 10th August. He wrote that Mary of Lorraine had said that "her daughter did grow apace, and soon would be a woman if she took of her mother (who is of the largest stature of women)." It was said that Mary had had smallpox, and was now perfectly well ; but, in view of her subsequent story, I think it is more likely that she had had chickenpox.

A month later, the infant Mary was crowned at Stirling. The ravaging of the borders and the sack of Edinburgh followed in the succeeding years, being Henry VIII's "rough wooing" of the baby queen for his son, Edward. Mary was moved from place to place to keep her out of Henry's hands, and her case history remains a blank for five years. In March, 1548, when she was 5½, she was ill at Dumbarton, and was even rumoured to be dead. Huntly heard that she had smallpox, but La Chapelle, who was in Edinburgh, said it was measles, and this seems the more likely.

Later the same year, Mary was sent to France. She set sail from Dumbarton towards the end of July, 1548. "Lack of weather" kept the flotilla in the Clyde, and de Brézé, who accompanied her, was able to write to her mother from time to time, before they sailed North-about, to land ultimately at Roscoff on 13th August. Thus, on 31st July, de Brézé wrote, "the Queen, thank God, fares exceedingly well and has not yet been sick on the sea." She arrived in good health and, on 18th August, he wrote, "She has been less ill on the sea than anyone in her company, so that she made fun of those that were."

On arrival in France, Mary was lodged with the royal children at Saint Germain. We learn that instructions were given that no workman, or other stranger, was to be allowed to enter Saint Germain, and especially the palace, if he had come from any place where infectious disease had broken out ; and later this order was enforced at Poissy.

In March, 1549, the English Commander at Broughty Ferry heard that she was dead, but soon learnt that this was not true, and that she had had measles ; perhaps this was rubella. To this year, 1549, is to be ascribed the letter from Ferreri to the Bishop of Orkney which runs in part, "Inquiries are being made here about a medical adviser, who may pay attention to her health, according to the custom of Courts. There are many French who desire the office. The greater part of them either do not appreciate the importance of their art, or are not the persons to comprehend a Scottish temperament. Only one is of Scottish race, William Bog, Doctor of Medicine. He is so learned that he will bear comparison with any Frenchman, and is by far the best in diagnosing Scottish temperaments. A very important point is that Lady Fleming [Mary's guardian] would not be able to explain in her own language except to a Scot what the little Queen's ailment's were." Whether the Bishop approached Mary of Lorraine or not, we do not know, but Dr. Bog does not seem to have secured the appointment.

Mary's health at this time seems to have been good. When she was nearly 8, in September, 1550, the English Ambassador wrote, "For the last ten or twelve days, the Queen of Scots has been so dangerously ill of the prevailing flux that her recovery was doubted, but within the last two she is considered to be out of danger." Otherwise, apart from a plot to poison her in 1551, nothing appears in the record. We have an excellent picture of her at the age of 9½, and, in 1553, the Cardinal of Lorraine, writes to Mary of Lorraine in Scotland that Mary is in good health. In February, 1554, he writes again to say that she has toothache, and her cheek is swollen. He unconsciously lets us see what he thinks of doctors, for he adds, "I am amazed to hear that some have written to you that she is sickly. *Even* the doctors say that her constitution gives promise that she will live as long as any of her relatives."

In April, Mary now being in her twelfth year, the Cardinal writes again, saying that she was "troubled with a faintness at the heart, when, to satisfy her good appetite, she sometimes eats too much." Now, for the first time, we begin to step out of the realm of childish illnesses, and perhaps we here see the beginning of Mary's very real, yet possibly functional, complaints ; it may be that her age is of some relevance.

Later the same year, Mary herself records in one of her Latin themes that she has toothache, and then there is again a blank in the case history. The summer of 1556, however, was the hottest in the memory of man, "in consequence there have been upon us an infinite number of diseases." Mary took ill, apparently after eating melon. The Cardinal writes of a "persistent fever, wonderfully severe and sharp"; Mary took medicine on the second day, was bled on the third day, and was better on the fourth. However, she had a number of relapses, and the doctors prognosticated seven attacks. On 19th August, the Venetian Ambassador reported her to be somewhat better, but on 23rd September he says that she has not yet recovered her health. On 2nd October, the Cardinal is still concerned for her, and writes of a remittent fever, which sounds very like malaria. She went to Meudun for the benefit of a change. In November, she was said to have a quartan ague, but on 30th November, Wotton wrote that she seemed to be "meetly well amended." In the following year, 1557, she had smallpox, and was attended by Fernel who saved her beauty, as Mary wrote to Elizabeth when the latter had the same disease in 1562.

The year 1558 was important for two events: on 24th April, Mary married Francis the Dauphin, and, on 17th November, Elizabeth succeeded her half-sister, Mary Tudor, on the throne of England. Mary Queen of Scots was not yet 16.

Be the cause what it may, Mary soon became ill. In March, 1559, Mason writes to Cecil, "The Queen of Scots is very sick, and these men fear she will not long continue. God take her to Him as soon as it may please Him." In May, Throckmorton wrote, "Assuredly, the Scottish Queen in mine opinion looketh very ill on it; very pale and green, and therewith all short-breathed: and it is whispered here amongst them that she cannot long live." On 18th June, she swooned in church, and had to be given wine from the altar, and, three days later, she swooned again. At this time, the Spanish Ambassador wrote that she was "suffering from a certain incurable malady."

Soon after this, on 10th July, 1559, Henry II of France died from a lance thrust in the eye while jousting, and Francis and Mary became King and Queen of France. Mary's ill-health continued: in August, her weakness and sickness were increasing daily. She was ill after meals, swooned, and had to be revived with aqua composita. She believed herself to be pregnant, and even wore the 'floating tunic' in use as a maternity gown in those days. Chantonnay said she "looked very evil and in dangerous case." In September, she "felt herself well, contrary to her wont," but, on receiving unwelcome news from Scotland, she again fell sick. On the 28th, "she being at evensong, was for faintness constrained to be led to her chamber where she swooned twice or thrice." In November, she felt ill, looked very pale and kept her chamber all day. However, by December, she was well enough to suffer an accident while out hunting, being winded and knocked from her horse by a blow from the branch of a tree.

We now reach 1560, when Mary is in her eighteenth year. On 25th April, she heard of her mother's illness, when, with much emotion, she took to her bed. Mary of Lorraine, died in Edinburgh on 11th June, and Mary heard the bad news on the 28th. The Venetian Ambassador writes that "she loved her mother incredibly, much more than daughters usually do, and showed such signs of grief that she passed from one agony to another."

This was not all, however, for, on 5th December of the same year, 1560, the boy King, Francis II, died. A fortnight later, Mary "still will not receive any consolation, but brooding over her disasters with constant tears and passionate and doleful lamentations, she universally inspires great pity"; and, more than a month after his death, she is still said to be "overwhelmed with grief."

I want to pause at this point and recapitulate the story as I see it thus far. Mary's early youth is healthy, in spite of her poor heredity. She suffers from the usual diseases of her age and times: chickenpox, smallpox, measles, dysentery and malaria; she may also have had chlorosis. Her father died when she was a week old, and she was separated from her mother at the age of 5½, only to see her

once more for a short time when she was 7 ; even before she left Scotland, her residence was frequently secluded, and her mother saw little of her. In France, she was brought up in luxury, and probably she was grossly spoiled : after all, she was a Queen, and the destined bride of a future King. Soon after puberty, she developed indigestion ; she believed herself to be pregnant, and she began to shew signs of emotional instability. She fainted in public places, especially church, and became ill when she got bad news. The death of her mother and of her husband threw her into excessive transports of anguish, especially considering that her memory of her mother must, of necessity, have been slight.

Intellectually, she does not seem to have shone. She was bad at languages, having little facility with Latin, and none with Scots and English. She was an indifferent horsewoman, while Queen Elizabeth was admittedly her superior in both dancing and playing on the virginals ; she had some musical ability, however, and she composed some verses which are not quite without merit.

From all this, we begin to see a picture of her which is, perhaps, rather different from those which have been drawn of her before.

Francis II, Mary's husband, was born on 18th January, 1544. His health was so poor that he earned the title of "le roi pourri." He was continually in the hands of the physicians, and the astrologers optimistically predicted that he would die at the age of 18. Although he was constantly ill, we have few details of his illnesses. In 1547, he had smallpox ; in 1549 he was seriously ill ; in September, 1556, he had a quartan ague which lasted with remission, for five months. It is interesting, in connection with the disease of which he died, that there exists a letter from de Montmorency to d'Humières, the governor of the royal children, in which he tells him to see that the Dauphin uses his pocket handkerchief more frequently. Evidently, he had a chronic respiratory infection.

Mary was married to Francis on 24th April, 1558, when he was only 14. He succeeded to the throne of France in July, 1559. On 15th November of that year, Killigrew wrote to Elizabeth, "It is very secretly reported that the French King has become a leper, and, for fear of his coming to Châtelherault, the people have removed their children, and of late certain of them are wanting about Tours, which cannot be heard of ; and commandment shall be given that there shall be no seeking for the same." The explanation for this horrible insinuation is that one of the cures recommended for leprosy was bathing in the blood of young children.

In mid-November, 1560, the weather was warm and spring-like, but suddenly became very cold. Francis was out hunting on the 16th, and caught a chill. On 20th November, the Venetian Ambassador wrote, "He had a sudden attack of extreme cold accompanied with some fever. It is caused by a flow of catarrh which exudes from the right ear, and, if the discharge be stopped, he suffers great pain in the teeth and jaws, with an inflammation behind the ear, like a large nut." Francis suffered so much pain that he became delirious. On 2nd December, he improved, but, the next day, he became unconscious, and he died two days later, on 5th December. After his death, it was found that his brain was much destroyed by an abscess. The story is typical of mastoiditis and temporal lobe abscess. No doubt his "leprosy" was an eczema caused by chronic otitis media.

His death was summed up by Calvin in these words, "Did you ever hear anything more timely than the death of the little King ? There was no remedy for the worst evils, when God suddenly revealed himself from heaven, and He, who had pierced the father's eye, smote the ear of the son" ; while John Knox added his epitaph, "Lo, the potent hand of God from above sends unto us a most wonderful and most joyful deliverance, for unhappy Francis, husband to our sovereign, suddenly perisheth of a rotten ear ; . . . that deaf ear that would never hear the truth of God." I will only add that Francis was not yet 16 when he died ; but it must also be remembered that his death, by diminishing the power of the Guises and by making Catherine dei Medici ruler of France, saved the life of the Protestant leader, Condé, who was then lying in prison under sentence of death ; and also eased the path of the reformers in Scotland. There is, of course, no foundation for Hill Burton's suggestion that Francis was poisoned by his

mother Catherine ; nor for Bishop Lesley's, that he was murdered by his wife, Mary Queen of Scots.

The year 1561 found Mary a widow in a land ruled by her enemy Catherine, in which her erstwhile all-powerful uncles, the Duke of Guise and the Cardinal of Lorraine, were reduced to small account. Her brother-in-law, Charles IX, was now King. She set her heart on marrying Don Carlos, son of Philip II of Spain, but, when news arrived that these negotiations had broken down, and when the coronation of Charles was imminent, she became ill again. She was at Nancy, and was said to have a tertian ague. She missed the coronation on 15th May, and, a few days later, Throckmorton wrote that she had "somewhat amended, but was keeping her bed for the most part, no man but her physicians being allowed to speak to her," which suggests something different from an ague. By 28th May, she was at Rheims, apparently well.

In July, Throckmorton says of this illness, that "it hath somewhat appaired her cheer, though she makes no great matter of it, the worst being past," while Randolph is describing her as a "sick, crazed woman." Soon afterwards, as was to be expected when her presence was so obviously unwanted in France, she embarked for Scotland. She never lacked physical courage, and here she shewed it well, for she knew that Elizabeth would intercept her voyage if she could. On arrival at Leith, she was so disappointed at the sorry welcome and poor arrangements, so different from that which her French up-bringing had led her to expect, that she broke into tears, and, according to Jebb, went to bed for a fortnight on arrival at Holyroodhouse, although it is fair to say that the latter part of this incident is not mentioned by other authors.

In September, 1561, she made her first "progress." When she reached Stirling, there was a "tumult" in her Chapel Royal, for the Protestants resented the saying of the Mass. That night, her bed-curtains caught fire, and she was nearly suffocated. I wonder how accidental that fire was, and to what extent she was prepared to go in order to draw pity and attention to herself?

Soon the cavalcade reached Perth, the first town to throw off the old religion, displaying still its despoiled church and ruined monasteries. There were no pageants to welcome her, and, although the burgesses presented her with a golden heart filled with gold, the reception was cool. Accordingly, she took ill ; a contemporary journal says, "As she rode through the street, she fell sick, and was borne from her horse into her lodging, not being far off, with such sudden passions as she is often troubled with after any great unkindness or grief of mind."

About this time, Mary came under the complete dominance of her half-brother, Lord James Stewart, later Earl of Moray. It is to be noted that, throughout her free life, she was always completely dominated by the nearest man. In France, it was the Cardinal of Lorraine ; in Scotland, first Moray, then Rizzio, then Darnley, and finally Bothwell. The immediate result of the dominance by her Protestant half-brother was the overthrow of Huntly, the most powerful Roman Catholic in her domains, at the battle of Corrichie in 1562.

Earlier that year, she had had a riding accident, when her horse fell with her at Falkland. In July, when she heard that the meeting with Elizabeth, on which she had set her heart, had been postponed, she took to her bed, while, in August, she is reported to have had bouts of fainting. On her return to Edinburgh after Corrichie, in late November, she caught influenza, then masquerading under the name of the "New Acquaintance."

During 1563, various marriage projects were set on foot, and, especially, the Don Carlos match was re-opened ; all came to nought. There were troubles in Scotland, Catherine dei Medici was shewing herself in opposition to Mary's plans, and Elizabeth's policy was patently crooked. In December, Mary took to her bed with pain in her left side, afterwards frequently referred to as "spleen," but which I have no doubt was really a gastric ulcer. Randolph said she had danced overmuch on her birthday, but she herself spoke of a chill caught in chapel.

Randolph gives us another vignette of her at this time, "For two months, she has divers times been in great melancholy ; her grief is marvellous secret,

and she often weeps when there is little apparent occasion." I think he hit the mark when he wrote, "Some think the Queen's sickness is caused by her utterly despairing of the marriage of any of those she looked for."

There is a blank in her medical history until May, 1565. In February of that year, Darnley came to Scotland, and, in May, Randolph writes, "I know not how to utter what I conceive of the pitiful and lamentable estate of this poor Queen, whom ever before I esteemed so worthy, so honourable in all her doings, and, at this present, find so altered with affection towards Darnley," and, in another letter, "She is now so much altered from what she was that who now beholds her does not think her the same. Her majesty is laid aside, her wits not what they were, her beauty another than it was, her cheer and countenance changed into I know not what. A woman more to be pitied than ever I saw."

Two months later, Mary married Darnley, thus strengthening her claim to the throne of England. Immediately, her husband dominated her, so that Randolph wrote, "She has given over to him her whole will, to be ruled and guided as himself best liketh."

By November of this year, 1565, Mary was understood to be pregnant, and she fell ill with the pain in the side once again. It is an interesting commentary on life at that time that Randolph saw her and, when she complained of sleeplessness, he could remark that he "opined that she had something in her belly which kept her waking," to which she replied, "Indeed, I may speak with more assurance than before I could."

By now, Darnley had shewn the cloven hoof. Having supported her and, with Bothwell's assistance, defeated her half-brother and the other rebels in the Chase-about Raid, which had ensued on her marriage with himself, and in which Mary herself had behaved with conspicuous courage, Darnley now became independent, both politically and socially. He had been made titular King of Scots with equal powers to Mary, but he desired the Crown Matrimonial, which would confer the regal powers on himself in the event of Mary's death without issue. Mary was now six months pregnant; if Darnley were to become sole ruler, he must get rid of her before she could be delivered of a living child; however, the Crown Matrimonial could only be conferred by Mary and Parliament. Darnley, therefore, although a Roman Catholic, got into touch with the exiled, Protestant, Chase-about Rebels, of whom Moray was the leader, and arranged with them to obtain the Crown Matrimonial by their aid, in return for reinstating them in Scotland. Accordingly, a coup d'état was staged; Moray and his friends crossed into Scotland, and Rizzio was murdered on 9th March, 1566. The murder was carried out under the pretext that he was too big for his boots, which was probably true, and that he had had an adulterous association with Mary, which was certainly false. The deed was done in Mary's presence in order to bring on a miscarriage, allowing time for Mary and Parliament to grant the Crown Matrimonial to Darnley, before she herself would die.

The plot failed because Mary did not miscarry and Darnley turned craven; no doubt he suddenly realised that the Protestant Lords would be his friends for as long as suited them, and no longer; and also because Mary, faced with certain life imprisonment (it had already been decided to send her to Lochleven) and with possible death, shewed an unexpected courage. She persuaded Darnley to escape with her to Dunbar, where she received the support of Bothwell, and was soon able to subdue the rebels.

There was a curious incident during her flight. The Queen was riding pillion, and Darnley was on a horse by himself. When they had already gone far enough to be safe from pursuit, Darnley whipped the Queen's horse savagely, although Mary protested that riding was uncomfortable for her in her state of pregnancy; Darnley urged her to hurry, and added, "If we lose this child, we can get another." I think he still had his eye on the throne, and was hoping that hard riding would bring on the miscarriage which the Rizzio murder had failed to induce.

When the rebels were driven to flight, Mary retired to Edinburgh Castle,

where her son, later King James VI and I, was born between 10 and 11 of the forenoon on 19th June, 1566, "Albeit, dear bought with the peril of her life, she being so sore handled that she wished she had never been married." Five days later, she was still weak and had a hollow cough. Before the end of July, however, she was well enough to go to Alloa, "She being yet a green woman," as Lennox said; and in August, she, Darnley and others went hunting in the "Meggotland."

On 8th October, she left Edinburgh for Jedburgh to hold the Justice Eyres. These being concluded, on 16th October, she rode to Liddesdale, accompanied by Moray, now reinstated in favour, to see Bothwell who had been wounded a week before. This journey has often been held to be scandalous and possibly adulterous: she has been said to have hastened to her lover the moment that she heard of his wound, riding 60 miles in a winter's day to be with him. In fact, she heard of Bothwell's wound before she arrived at Jedburgh, where she remained a week, and then travelled 18 miles to see him. This was the least she could do, in view of the facts that she was so near him, that he was one of the principal officers in her kingdom, being Great Admiral and Lieutenant of the Borders, that he was practically the only nobleman in the country who had not rebelled against her, and that he was wounded severely in her service.

Mary stayed at the Hermitage for two hours talking to Bothwell, and returned to Jedburgh the same day. The following day she was taken ill. Bothwell was brought to Jedburgh in a litter on the 21st, five days after Mary had visited him, and when she had already been ill for four days. I mention this because of Buchanan's story, that, as soon as Bothwell was brought to Jedburgh, "their cohabitation and familiarity was little to the credit of either. In which place, whether by reason of their toils by night and by day, not very seemly for themselves, but disgraceful in the people's eyes; or whether through some secret providence of God; the Queen contracted a distemper so extreme and pestilent, that nobody entertained any hopes of her life." Buchanan, of course, was a retainer of Darnley's father: he was "good Levenax." At this very time, the French Ambassador wrote, "I never saw Her Majesty so much beloved, esteemed and honoured, nor so great a harmony amongst all her subjects as at present is by her wise conduct."

Be that as it may, Mary had had an attack of the "spleen" a few days before her ride to the Hermitage. The day after her return, she had a hæmatemesis. A contemporary account says that the pain in her side was very sharp and was accompanied by frequent vomiting of blood. She several times lost consciousness, so that she did not speak for three or four hours. It was therefore thought that she was poisoned, especially as the vomitus contained a lump of "green stuff, thick and hard." This was on 17th October. On 19th, she lost the power of speech and had convulsions, and, on 20th, she lost her sight. By the 24th, she had improved, but she became very ill again on 25th. She seemed dead, "her eyes closed, her mouth fast, and her feet and arms stiff and cold." Moray laid hands on her jewellery, and mourning dresses were ordered. However, she was restored to life by her surgeon, Arnault, who was said to be "a perfect man of his craft." Certainly, it is difficult to imagine better treatment of a case of hæmorrhagic shock, other than transfusion, than that which he employed. "He bandaged very tightly her great toes, her legs from the ankle upwards, and her arms; then he poured some wine into her mouth, which he caused to be opened by force." He also gave a clyster. Later, she vomited a great quantity of corrupt blood. On 28th October, Darnley, who was amusing himself at Peebles, paid her a short and tardy visit. Her convalescence was interrupted on 30th by a fire which drove her to fresh lodgings. In November, she was able to resume her progress of the borders, and suffered a riding accident before the town of Berwick, when Sir John Forster's "courser raise up with his fore-legs to take the Queen's horse by the neck with his teeth, but his fore-feet hurt her Majesty's thigh very evil."

On 5th November, having reached Kelso, she had received a letter from Darnley, which caused her great grief, and she was heard to cry that she wished

that she might die. We do not know what was in the letter, but Mary, before her illness at Jedburgh, already knew that Darnley was contemplating leaving the country for Flanders, where Philip II of Spain was almost daily expected. He was also in communication with the Pope, pointing out that Mary was but an indifferent Catholic, had pardoned the Protestant rebels, and was doing nothing to restore the old religion.

By 20th November, Mary was at Craigmillar, still in the hands of her physicians. Du Croc said that her disease was "principally a deep grief and sorrow." It was now that Lethington and others proposed the divorce of Darnley, which Mary refused on the grounds that an annulment would illegitimate her son.

The baptism of James took place at Stirling on 17th December, 1566. Darnley was proving difficult, and, on 23rd, du Croc saw Mary laid on a bed, weeping sore, and complaining of a violent pain in her side. She had had yet another riding accident a week before at Seton. On 24th December, Darnley removed himself from Stirling and went to Glasgow, where a ship was lying ready to take him to Flanders. However, he fell ill. During his illness, he changed his mind about leaving Scotland, and, on the advice of Sir James Balfour, persuaded Mary, who visited him in Glasgow, to take him back to Edinburgh. A better plan had been devised : Darnley was to murder Mary in such a way as to lay the blame on the Protestant Lords, and to make it look as if an attempt had been made on his own life as well. Mary's death achieved, Darnley, with the help of his father, the Earl of Lennox, would seize power, execute the Protestant Lords for the murder of Mary, and rule in the name of his son. How long that son would survive is a matter for conjecture.

Darnley was, conveniently, still convalescent and contagious : he could not return to Holyrood until finally cured, a medicated bath being the last item in his course of treatment. He was therefore lodged, by his own request, in the Old Provost's House of Kirk o' Field, next door to a house owned by Sir James Balfour ; here he arrived with Mary on 1st February, 1567, and here he met his death in the early morning of 10th February.

Let us pause again and look back at Mary in Scotland. We see very clearly her habit of taking ill whenever things go wrong, but, when the danger is so pressing as to threaten her very life, she rises above her emotions, shews courage and resolution, and is prompt in action. We see the domination of herself which she continually permitted to men near her, and we see the way in which Bothwell had assisted her. Let me say that there is no evidence that she committed adultery with Rizzio, Bothwell or anyone else. Next, we see her tolerant and faint-hearted in religion, disobeying the Pope and misusing the money which he sent her ; and, finally, we see a typical psycho-somatic illness, peptic ulcer.

Henry Stewart, Lord Darnley, later Earl of Ross, Duke of Albany, and King Henry of Scots, was born in 1546, and was thus not yet 21 at the time of his death. He was the great-grandson of Henry VII ; while his father, the Earl of Lennox, was presumptive heir to the throne of Scotland, if the illegitimacy of the Hamiltons could be proved. Little is known of his life in England ; he seems to have been athletic, skilled in languages and musical. He followed his father to Scotland in February, 1565, and, in April, was ill with measles, being lodged in Stirling Castle, where he was visited by the Queen, who, it was said, often stayed with him until midnight ; " Her care was marvellous tender of him." He had recovered by the end of May, and he was married to Mary on 29th July, 1565.

His constitution seems to have been moody and irritable ; he was addicted to alcohol and women, and one seeks in vain for a decent trait in his character. Drury wrote in February, 1566, that " All people say that Darnley is too much addicted to drinking. The Queen having remonstrated on one occasion, he used such language and behaviour that she left the place in tears." We have seen the part which he played in the murder of Rizzio ; the failure of that plot to seize the throne led to his attempt to obtain it by the help of the Catholic powers. The discovery of his machinations caused Mary much grief, and the Protestant

Lords much concern. It was obvious in these circumstances that "he could not long continue."

On 24th December, 1566, after the baptism of James, he left Stirling unobtrusively for Glasgow, en route for Flanders. He had already considered the seizure of Scarborough Castle and of the Scilly Isles, and no doubt he intended, with the aid of Philip of Spain and the Pope, to make himself master of all Britain. His plans were interrupted by an illness, which has usually been said to be smallpox, but which I believe to have been syphilis.

According to the story of the Lords of the Congregation in their proceedings against Mary, he had been poisoned. This "appeared from the breaking out of his body." "He became exceeding sick, so as his whole body broke out in evil favoured pustules," but he recovered, "By force of the young age that potently expelled the poison, which was supposed to have been given him to end his troubled days." A contemporary diarist says that he had smallpox, "but some said poison," while Nau, Mary's secretary, also says smallpox. Buchanan argued that, since Mary was an adulteress, she was therefore also a poisoner, which is perhaps false logic.

My reasons for believing the disease to have been syphilis are these : it was a "pox," whether great or small ; Sir Daniel Wilson, the Scottish archaeologist, who examined the reputed skull of Darnley, says that it shewed signs of this disease, but little weight can be put on this evidence. Next, there is an interesting statement in the manuscript entitled, "*Les Affaires du Comte de Boduell*," written by Bothwell in prison in Copenhagen. "Some time after," he wrote, "the king fell sick of the smallpox." The manuscript is in French, and the word used for 'smallpox' is '*petite vérole*' ; however, the word '*vérole*' is deleted and '*roniole*' substituted in Bothwell's writing. As it now reads, the disease is thus called the "little itch," but perhaps he omitted by accident to delete the word '*petite*' ; '*rognole*' is, I believe, a slang term for syphilis. Finally, I refer you to one of the Casket Documents. The Second or Long Glasgow letter was, in part, I think, written by Mary ; in any case, it was certainly written by someone who well knew the circumstances. Here we read in the English translation, "I thought I should have been killed by his breath, for it is worse than your uncle's ; and yet I sat no nearer to him than in a chair by his bed, and he lieth at the further side of it." It seems, therefore, that Darnley's breath was fouler than it had been, and I suggest that this was because he had taken a salivation of mercury, which, by 1567, was already the recognised treatment for syphilis. Furthermore, his disease was obviously reckoned to be contagious, but not ordinarily infectious : hence the importance of finishing the treatment with a bath, which he eventually took at Kirk o' Field. The letter above-mentioned also refers to him as "this pockish man," and says "for he should take medicine and the bath at Craigmillar."

Darnley had his bath on Saturday, 8th February, 1567. Probably it was the first, and certainly it was the last bath he ever had. Why did he elect not to return to Holyrood until Monday, 10th ? This is the crucial point of the mystery of his death. Sunday was Carnival Day ; and Mary dined with her retinue at a house in the Canongate, and then visited Darnley. Later, she went to the wedding masque of two of her servants at Holyrood. Presumably, she was to return to Kirk o' Field, where she had already slept on several occasions. However, about midnight, Bothwell and Traquair, the Captain of her Bodyguard, took her aside for a conversation which lasted an hour, and then Bothwell left the palace with his servants. What happened thereafter is conjecture. My own belief is that Darnley, watching for Mary's return, saw Bothwell and his men, and mistook the retinue, as he was no doubt intended to do, for his wife and her entourage. The house had already been prepared by Balfour, and, during Mary's absence at the Masque, the gunpowder had been brought into the cellar through an opening made at the western end of the building. Darnley caused the fuse to be lit, and escaped from the window through the Flodden Wall into the South Garden, hoping that Mary would have entered the house before it was blown up. The mine exploded somewhat prematurely : two of Darnley's servants died in the



MARY QUEEN OF SCOTS IN 1559

Reproduced from a photograph in possession of Dr. Armstrong Davison

explosion, while a third was later found unharmed on the top of the town wall. Darnley himself and another servant were surrounded in the garden, not by Ker of Fawdonside and his men, who were in the neighbourhood at Darnley's desire, but by either Bothwell's men or by an ambush set by the Lords of the Congregation. The latter were also in the know, perhaps by the treachery of Sir James Balfour to his friend and master, for afterwards Balfour certainly had some sort of a hold over the Protestant Lords.

So Darnley was slain ; tradition says that the unhappy king was suffocated by means of a towel steeped in vinegar by his kinsman, Archibald Douglas. An old woman who lived nearby heard him cry out, "Have mercy, kinsman, for the love of Him who died upon the Cross." Darnley's body was embalmed by an apothecary and a surgeon who were paid £42 6s. 0d. Scots (about £3 10s. 0d. sterling).

Mary was now aged a little over 24, and was once more a widow ; she has often been accused of criminal negligence in her failure to pursue the slayers of her husband, but the details which we have of her health at this time suggest that she had given way to her emotions and was in no condition to conduct affairs of state, or even to look after herself.* While we have little direct evidence of Mary's health after Darnley's death, indications of her complete breakdown are not wanting. Thus, Darnley died on 10th February ; on 11th, Mary received an important letter from Archbishop Beaton, her Ambassador in Paris, warning her of an attempt to be made against her : she never replied to that letter, and, according to Bothwell, she was "so grievous and tormented" that she could not. On 13th or 14th February, Melville, who was on an embassy to Elizabeth, having heard of Darnley's death, and having broken his journey South, returned to Edinburgh. Mary could not see him, and he still had received no word from her a fortnight later. In spite of her strong family affection, she never wrote to her uncles or to her grandmother, although she was usually a good correspondent. On 15th February, Darnley was buried ; Mary did not attend the funeral ; on 16th February, she removed to Seton. According to Lesley, "she would have continued using none other than candlelight, had not the Privy Council, moved by the advice of her physicians, pressed her to leave that kind of solitary life, and repair to some good, open and wholesome air." On 8th March, Killigrew, who brought an autograph letter from Elizabeth, which naturally called for an autograph reply, had an audience in a dark room. Mary hardly spoke, and it has been suggested that she was impersonated by one of her Marias. She never replied to Elizabeth's letter. Clerneau arrived from Paris on 25th March, and some weeks later wrote to Archbishop Beaton, "she has as yet neither listened to or looked at anything that I brought from you or others." On 29th March, Drury, the Marshall of Berwick, records that she is still ill, "This Queen breaketh much," he writes, and also that she is subject to frequent fainting fits. In the middle of March, the infant James was removed to Stirling Castle, but Mary did not accompany him on the journey.

Later, in April, Mary visited her son in Stirling ; on her return, she was kidnapped by Bothwell on 24th April, and taken to Dunbar. On 3rd May, Lady Bothwell divorced her husband for adultery in the civil court, citing a maidservant of Bothwell's as co-respondent ; on 6th May, Mary and Bothwell returned to Edinburgh ; and on 7th May, Bothwell's marriage was annulled in the Consistory Court on account of consanguinity. Be it noted that Bothwell's marriage had been made under dispensation, that Mary knew this, that the dispensation was abstracted, and that Mary thereafter consented to marry Bothwell, knowing the annulment to have been obtained by fraud ; finally, she married him by Protestant rites on 15th May. Tolerant in religious matters Mary may have been, but here she cannot have been in control of herself. On the day after her marriage, she is heard to "call out for a knife that she may kill herself, or else, she said, I

* Letters sent in Mary's name to England and France at this time are obviously written by her Council ; they are in Scots, which Mary never wrote.

The son of Alexander Pennecuik of Newhall, who had been a surgeon in the Thirty Years War and afterwards in the army which went from Scotland into England in 1644, Alexander the younger took his M.A. degree at Edinburgh University. Pennecuik was an accomplished classical scholar and he had a good knowledge of French, German, Italian and Spanish which he acquired during his extensive travels on the Continent. He took his M.D. at Padua in 1672. Returning to Scotland he set up in practice in Peeblesshire so that he could devote himself to the care of his father to whom he was deeply attached, and who died in 1692 at the age of ninety-two. A great lover of country life, Pennecuik was a botanist of note, and one of his friends was James Sutherland, superintendent of the first Botanic Garden which had been set up in Edinburgh in 1684 by Sir Robert Sibbald and Dr. Andrew Balfour. At the request of Sibbald who was not only a distinguished physician but an antiquary and geographer of repute, Pennecuik wrote a description of Tweeddale, the first history of Peeblesshire, and in the writing of this he had the assistance of his friend John Forbes, advocate. The book was dedicated to William, Earl of March, but it was not published until 1715. Pennecuik was a friend of most of the Scottish men of letters of his time, including Allan Ramsay, a frequent visitor to Newhall. Tradition has it that Pennecuik furnished Ramsay with the plot of the pastoral poem, *The Gentle Shepherd*. Our physician was a minor poet of some distinction and in his lifetime he was said to have been "entitled to a respectable place among our Scottish Poets," while after his death in 1722, he was called "The Scottish Ovid." The value of Pennecuik's verses lies in the picture they give of the rural life of Peeblesshire in his time. The later years of his life were spent at Romanno where he died and he was buried beside his father in Newlands Churchyard.

Sir Harry Johnston, the noted traveller, once said that "In 1603 the Scottish people discovered England as a field for adventure and enterprise, but it was not until after the Union of the Parliaments in 1707 that they really embarked on their great career as pioneers of discovery and commercial enterprise and adventure." The greatest hero of Scottish exploration in the eighteenth century was Mungo Park, the one hundred and fifteenth anniversary of whose death will shortly be commemorated.

Mungo Park was born at Foulshiels in Yarrow, four miles from Selkirk, on September 10, 1771. He was the seventh child and third son of Mungo Park and his wife, a daughter of John Hislop of Tennis, a farm a few miles further up the Yarrow valley. Mungo senior was a successful farmer on a small scale and a man of outstanding character who gave constant and unrelenting attention to the education of his children. Young Mungo's mother was a woman of sterling quality and the youngster grew up in the congenial atmosphere of a happy home. The father engaged a private tutor for his family and Mungo showed considerable promise, and, in due course, moved to the Grammar School at Selkirk where he continued to make good progress. It was the intention of his parents that Mungo should be educated for the ministry for which his studious habits and serious turn of mind were thought to fit him. Mungo, however, felt no "call" to enter the Church and chose to study medicine. His father readily agreed and, at the age of fifteen, he was apprenticed to Mr. Thomas Anderson, a surgeon in Selkirk, with whom he resided. During his apprenticeship Mungo continued his classical studies and attended the Grammar School. In 1789 he entered Edinburgh University where he studied for three sessions. He was particularly interested in botany, and in his summer vacations he accompanied his brother-in-law, James Dickson, on various botanical excursions to the Highlands and so laid the foundation of the knowledge of the subject which was to prove so useful to him in his African travels. James Dickson, who had been a simple gardener at Traquair, had settled in London and set up as a seedsman. He became a friend of Sir Joseph Banks and made a name for himself as a botanist and was a founder member of the Linnaean Society. This association with his brother-in-law had a far-reaching influence on Mungo Park's career, because when he qualified as a

will drown myself." Four days later, Drury was saying that she "long had a spice of the falling sickness."

The events which led to Carberry followed swiftly, and, on 15th June, Mary was lodged a prisoner in Edinburgh, where "she came to the window sundry times in so miserable a state, her hairs hanging about her lugs, and her breast, yea, the most part of all her body from the waist up bare and discovered, that no man could look upon her but she moved him to pity and compassion."

Mary was removed to Lochleven on 17th June, and there, according to Nau, "she remained 15 days without eating, drinking or conversing with the inmates of the house, so that many thought she would have died." By mid-July, she was in good health. Various people heard that she was pregnant, and she said that she took herself to be seven weeks gone with child. On 24th July, she abdicated, and Nau says that "when prevailed upon to sign her abdication, she was lying on her bed in a state of very great weakness, partly in consequence of a great flux, the result of a miscarriage of twins, her issue by Bothwell." Soon after, she had a swelling of one half of her body and one leg, perhaps a phlegmasia alba dolens.

Nine months later, on 2nd May, 1568, Mary escaped from Lochleven. Langside was fought on the 13th, and on 16th May, Mary arrived in England.

Once again let us pause and look back on this phase of Mary's life. There seems to me to be no doubt that she had a complete breakdown after Darnley's death, and that, from then until some time before she escaped from captivity, she was, if not perhaps insane, at least not mistress of herself. During the whole of this period, she never emerges into the daylight, but is always seen in the shadows of Bothwell and her Council. All this conflicts so markedly with the character which she displays in those of the Casket Letters which are said to be written just before her kidnapping, that this alone is good enough reason to believe them to be spurious.

James Hepburn, fourth Earl of Bothwell, later Duke of Orkney, and Hereditary Great Admiral of Scotland, was born in 1535. He was, therefore, 31 at the time of Darnley's death. He was educated mainly in France and wrote French with a scholarly hand. Some of his books have been preserved, and are well bound in leather, with his coat of arms tooled on the boards. His health was good, and, until his injury by Jock Elliott of the Park on 7th October, 1566, we hear nothing of any illness. On this occasion, he received a wound in the thigh, possibly another in the hand, and a sword stroke across the frontal region of his skull which left a scar. At first he was thought to be blinded, but this calamity was averted. Fourteen weeks later, he suffered a serious flux of blood from one of his wounds.

After the affair of Carberry, he fled to the North and, eventually, to Norway, where he was imprisoned and conveyed to Copenhagen and thence to Malmoe. Here he remained in durance until 1573; in that year, a man "lately out of Sweden reported that the Earl of Bothwell was stark mad, and had long been so." There is other evidence that he became insane at about this time. In the summer of the same year, he was removed to Dragsholm, where he died in 1578, aged about 43. He was buried in Faarevejle Church, his body being exhumed in 1858. He was about 5' 6" tall and looked about 50. His hair was red and streaked with grey. The scar on his head wound could easily be seen.

Bothwell has been grossly maligned. He differed from the other Scots Lords, in that, while they were amoral, he was only immoral. He was a bold and faithful servant to both Mary of Lorraine and Mary Queen of Scots, at any rate until the time of Darnley's death. Almost, if not quite, alone among the Lords, he never accepted a bribe from England or Spain. The immorality of his life, however, is notorious, and the suspicion must arise that he contracted syphilis during one of his numerous amours. This hypothesis might account for Mary's still-born twins at Lochleven, and also for his own subsequent insanity. It may be significant that, in spite of his many "affairs," history only records one illegitimate son of the Earl of Bothwell. It is a pity that his body has not been examined for possible traces of syphilis.

Mary arrived at Workington on 16th May, 1568. She was 25½ years old, and

was to spend the remaining 19 years of her life in captivity. From Workington, she was conveyed to Carlisle, and thence, in July, to Bolton. It was at Bolton that the project for a marriage between Mary and the Duke of Norfolk was first mooted, a project which was to lead the Duke to the scaffold for treason. It is noteworthy that, until this time, Mary had frequently expressed her devotion to Bothwell, and had vowed never to separate her lot from his. Now that she came under other male influences, Bothwell was forgotten, and she readily assented to a divorce from him, although this divorce was never, in fact, obtained.

In February, 1569, Mary was removed to Tutbury, the strongest castle in those parts. She dreaded the removal, and caused much delay during the journey, complaining of the old pain in her side. When she did arrive, Shrewsbury thought her health to be perfectly good. Three weeks later, she was visited by Mr. White, when "she laid her hand on her left side, and complained of an old grief newly increased there." Soon after, she complained of the "spleen," and her physician said she had an "*obstructio splenis cum flatu hypochondriaco*." Soon after this, she "swownded," and was brought to by "*aqua vitae* in good quantity," becoming hysterical the next day. The Spanish Ambassador thought that she was feigning. Her letters to Norfolk at this time, are full of complaints of illness and pain in the side, and Queen Elizabeth sent two physicians to see her. In April, she had been removed to Wingfield, and then to Chatsworth. In September, on Norfolk's treason becoming known, she was returned to Tutbury. Norfolk was sent to the Tower on 8th November, and, as soon as the news reached Mary, she had an attack of pain in the side, and had a "fit." She went to bed for some days.

When the revolt of the Northern Earls broke out, in November, 1569, Mary was removed to Coventry, returning to Tutbury early in 1570. Her health seems to have been fairly good this year, and we hear of her using the long-bow. However, on 24th November, she was told that her son had been taught to speak of her in offensive terms, and she immediately became ill. Fénelon ascribed the cause of her illness to this unwelcome news. Elizabeth again sent physicians to her: Mary said that she was suffering from "the accustomed dolour of our side and a rheum, extreme pain and lack of appetite."

In November, 1570, she was removed to Sheffield. 'Apart from a few short visits to Chatsworth, and Buxton Spa, she was to remain at Sheffield for 14 years. The convenience of having her at Sheffield was, to Shrewsbury, immense. With Mary's large retinue, the guards, and Shrewsbury's own household, the place of residence soon became "noisome"; at Sheffield, there was a Manor House in the Castle grounds, and a change of residence was thus easy when one of the places became too foul. At this time, Mary was sleeping badly and we hear that she is "much molested with a continual distillation from her head into her stomach that she neither hath desire to any meat, neither faculty to retain that long when she doth eat it. She is troubled also with an incessant provocation to vomit, by which she doth void a very great quantity of phlegm," there is an inflammation "in her left side, under the short ribs."

The complaint seems to have settled soon, and, about this time, Mary began to be ever more religious. In February, 1571, Ridolfi's plot started but, in April, the Lords captured Dumbarton Castle, until then held in her interest. A month after this event, Shrewsbury writes, "she has been very sickly since and brooks little meat"; Mary herself says that she had a haematemesis. Late in May, Lesley, the Bishop of Ross and Mary's Ambassador to Elizabeth, was imprisoned in connection with the Ridolfi plot, and Mary again had a recurrence of vomiting and fainting. Shrewsbury, however, did not credit her being out of health. He writes, "I cannot perceive that she is in any present peril of sickness." In September, Norfolk, who had been released, was a second time committed to the Tower, and she began again to complain of the old grief in her side, and of headaches. During Norfolk's trial, she kept her room for a whole week. She remained sickly throughout the first half of 1572, and, on the execution of the Duke of Norfolk, fell into what was described as a "passion of sickness." Once again,

Shrewsbury was not impressed, and said that she had "made overmuch use of physicks and baths."

In 1573 and on subsequent occasions, Mary was allowed to visit the baths at Buxton. Shrewsbury disapproved: "She seems more healthful now. She has very much used bathing with herbs of late. What need she hath of Buxton Well, I know not." It is to be noted that, at this time, she was in high hopes of obtaining her freedom. Various plots were on foot; she feared that, if they should be discovered, she would be poisoned, and she wrote to the French Ambassador for a mithridate. The fear remained with her, so that next year, she asks for terra sigillata or fine unicorn's horn.

From now until 1580, apart from minor ailments, her health seems to have been good. We hear of a sprained foot, and of a bad cough on one occasion, but there is little news of the old grief in her side. There is, however, abundant evidence of her increasing religiosity, in letters to the Pope, and in such expressions as her "desire to restore religion to this poor isle."

In July, 1580, she injured her back in a fall from a horse when starting on one of her visits to Buxton. Soon after, the pain in her side is "vexing" her again, and, in 1581, she lost the use of her legs. This apparently occurred in May; in November, she was still only able to walk a few paces, and the French Ambassador sent a coach for her use, probably the first coach ever seen in Sheffield. She complained of a "distillation that falls along her left side": this was during the visit of Beale, Clerk to the Privy Council, but both he and Shrewsbury doubted the genuineness of her symptoms. Shrewsbury had been looking after her for a long time now, and was not, generally speaking, unsympathetic to her.

In 1582, various observers thought her well, but her letters are full of complaints about "her poor body worn out with pain," and she expresses the belief that she is dying and cannot outlive the winter.

In September, 1584, Mary was removed from Shrewsbury's charge, and placed under the care of Sadler at Wingfield once again. He reports that there is little likelihood of her escape, seeing the "tenderness of her body, subject to a vehement rheum upon any cold, which causeth plentiful distillation from above down unto her left foot, wherewith, resting there, she is much pained, and is sometimes a little swollen." Soon afterwards, Paulet was made her keeper, and, in December, 1585, she was moved to Chartley.

In 1586, Mary entered into the Babington Conspiracy. She was now much stronger and in better health, being also very optimistic of the outcome of the plot. She writes, "I thank God that he hath not yet set me so low, that I am able to handle my crossbow for killing of a deer, and to gallop after the hounds on horseback." In August, the Babington Conspiracy was blown. Mary was not informed, but was removed to Tixall, while her papers were rifled. She was brought back to Chartley again, and finding her papers stolen and the whole plot exposed, she promptly became ill and took to her bed. When the Babington Conspirators were executed, she was again unable to walk. Five days later, she was removed to Fotheringhay.

Her trial for participation in Babington's Conspiracy, took place three weeks later. She behaved with great courage and dignity, but she also made great play of her ill health. From the time of her condemnation, she remained unwell. When the Commissioners came to announce the date of her execution, they found her in bed, suffering from rheumatism. However, she arose and dressed herself to receive them. The following day, 8th February, 1587, she was executed. She was so crippled with pain that she had to be helped by her servants down to the Great Hall of Fotheringhay, where the scaffold was erected. However, conscious of her dignity, and her predicament, she mounted the scaffold without help and, even, we are told, with ease; nor did she shew any difficulty in kneeling and placing her head on the block. The executioner's first blow struck her on the back of the head and probably stunned her. His second severed the head, save for a little gristle, which was divided by a third blow. Thus died Mary at the age of 44.

It has been said that Mary was never tried during her life for the murder of Henry, Lord Darnley, but that she had been on trial ever since. What light does her medical record throw on this crucial point? As you have heard, I believe that the facts shew that Darnley met his death during an attempt to murder her and seize the throne. Mary, I believe, had nothing to do with his death, except in so far as she allowed Bothwell to persuade her to remain at Holyrood, while he himself returned to Kirk o' Field. The medical evidence supports the view that she was innocent of the murder, for Mary broke down completely when she heard of her husband's death, and did not recover herself for some months, which seems to me to be much more consistent with innocence than with guilt.

The tragedy of Mary Queen of Scots is not lessened when we survey her medical case history. It is apparent that her worldly fortunes were translated with great facility into bodily states, and I doubt if such a person could, even in less tragic circumstances, ever have proved happy. I would enumerate three diseases from which she apparently suffered; thrombosis of the left leg as a result of her miscarriage; a gastric ulcer, presumably psycho-somatic in origin; and an hysterical diathesis which minimised or exaggerated her complaints in accordance as her affairs waxed or waned. A psychiatrist could hardly refuse to call her a "disordered personality," but I am inclined to go farther, and to describe her as an hysterical psychopath. This condition, as described by Henderson and Gillespie, consists of a normal intelligence with abnormal emotional reactions, and shewing marked lack of fore-sight. The etiological factors are hereditary mental disease, "broken home" in childhood, and brain injury; while the prognosis includes the possibility of more or less improvement when the emotions become mature. This series of events seems to be traceable in Mary's career.

Let me only add that: in moments of supreme crisis, as, for example, after the death of Rizzio and at her execution, she displayed a behaviour so courageous as to balance in great measure her manifest failings. However, the perennial fascination of her tragic story is only partly explained by this aspect of her character. Truly, she is still "possessed of some enchantment wherewith men are bewitched."

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(Most of the facts quoted about the health of Mary Queen of Scots will be found in the works of Stoddart, Hay Fleming and Leader listed below. Mahon seems to be the only person to have drawn attention to the breakdown in Mary's health immediately after the death of Darnley, but he thought that she was an epileptic. I have used Mahon's interpretations of the rationale of the plots which resulted in the deaths of Rizzio and Darnley; his arguments appear to be irrefutable).

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Dr. Davison's paper was profusely illustrated with slides, some in colour.

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The Scottish Society of the History of Medicine.

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1. The Society shall be called "THE SCOTTISH SOCIETY OF THE HISTORY OF MEDICINE," and shall consist of those who desire to promote the study of the History of Medicine.

2. A General Meeting of Members shall be held once a year to receive a report and to elect Office-Bearers.

3. The management of the affairs of the Society shall be vested in the Office-Bearers, who shall include a President, one or more Vice-Presidents, a Secretary, a Treasurer, and not more than ten other Members to form a Council. The Council shall have power to co-opt other Members who, in their opinion, are fitted to render special service to the Society.

4. All Office-Bearers shall be elected annually. The President shall not hold office for more than three successive years, but shall be eligible to serve again after one year. Not more than eight Members of Council, or two-thirds of the total number, shall be eligible for immediate re-election.

5. The Annual Subscription shall be Ten Shillings, payable to the Treasurer, who will submit a balance-sheet at each Annual Meeting.

6. The Secretary shall keep brief Minutes of the proceedings, shall prepare Agenda, and shall conduct the correspondence of the Society.

7. Meetings shall be held at least twice yearly, and the place of meeting shall be in any of the four University centres, or elsewhere, as the Council may decide.

8. This Constitution may be amended at any General Meeting of the Society on twenty-one days' notice of the proposed amendment being given by the Secretary, such amendment to be included in the Agenda circulated for the Meeting.