

The West of England Medical Journal Vol 114 No.1
Bristol Medico-Historical Society Proceedings

MAUD FRANCES FORRESTER – BROWN
(1885- 1970)

Britain's First Woman Orthopaedic Surgeon
John Kirkup MBE, MD, FRCS
Bristol Med-Hist. Society, 15.Dec.2008

In an era when few women achieved consultant surgical status, Miss Forrester-Brown MD, MS (fig. 1) proved not only a pioneer orthopaedic surgeon but demonstrated that her sex was no bar to this physically demanding speciality.

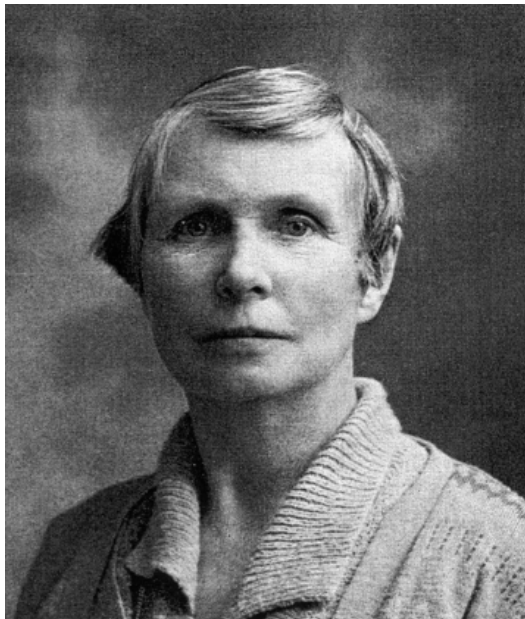


FIG. 1 Maud Frances Forrester-Brown at about 50 years
(courtesy British Orthopaedic Association).

Virtually on her own, she consolidated a series of clinics throughout three counties, elevating the Bath and Wessex Orthopaedic Hospital to national prominence; indeed she was a dedicated surgeon ahead of her time. Yet her shoulder was not always at the wheel, for she enjoyed horse-riding, ski-ing, skating, swimming and golf, and was deeply interested in literature and art.

As she did not marry, little is known about her family and early life. Born Maud Frances Brown to James Samuel Brown, Civil Engineer and Emma Laetitia Brown on 15th November, 1885 in Enfield, Middlesex (1), she spent some of her childhood in India (2). In March 1898, she joined Bedford High School with the name Maud Forrester Brown; the origin of Forrester has not been determined. She matriculated in June 1904 and gained an entrance scholarship to the London (Royal Free Hospital) School of medicine for Women in 1906 giving her name as M. Forrester Brown and the address of her father as "J.S. Brown Esq., Consulting Engineer to Govt. Bombay (3); clearly her father had not added Forrester to his name and it was not until the summer of 1907 that she hyphenated her name in Medical School records as Forrester-Brown, the surname she assumed permanently thereafter.

Miss Forrester-Brown performed well, excelling at practical subjects and winning a number of prizes. At the London University MB BS examination she passed with Honours in Pathology and Forensic Medicine, and was awarded a Gilchrist Studentship by London University enabling her to attend special courses including operative gynaecology in Berlin in early 1914. After an obstetric course in Glasgow she gained an MD (Lond) in gynaecology (4).

Junior Clinical Experience

Several junior posts, from as far apart as London to Dundee, included house physician at the Royal Free Hospital, house surgeon to Sir Harold Stiles (1863-1946) at the Royal Hospital for Sick Children, Edinburgh and Senior Resident at the Royal Infirmary,

Sheffield. The latter post was cut short in October, 1916, and her subsequent career shaped, by an invitation from Sir Harold Stiles to join him as orthopaedic resident at the Edinburgh War Hospital, Bangour where she completed a special study of nerve injuries due to gun-shot. When Stiles resigned in 1919, Miss Forrester-Brown was described as Surgeon to the War Hospital, with the assistance of Royal Army Medical Corps officers who she supervised. In 1922, Stiles and Forrester-Brown published *The Treatment of Injuries of the Peripheral Spinal Nerves*, of which she wrote two parts of three and made the preliminary drawings of many illustrated operative techniques (5).

During the 1914-1918 War, Bangour was visited by Sir Robert Jones (1858-1933), Director of Army Orthopaedic Services; doubtless the charisma and speciality of Sir Robert had a persuasive influence, for Miss Forrester-Brown later attended his clinics in Liverpool and Oswestry. Meanwhile in 1920 she published papers on nerve function and suture (6) and passed the Primary Fellowship of the Royal College of Surgeons of England (4); for unexplained reasons she never proceeded to the Final Fellowship. In 1921 she wrote a chapter on operations for nerve injuries in *Orthopaedic Surgery of Injuries* edited by Sir Robert Jones (7) and "Some studies in bone grafting" of fractures complicated by sepsis, favouring a two-stage operation illustrated by 26 case histories (8). Meanwhile in 1920 she gained an MD (London) with a thesis, "The results of operations for peripheral nerve injuries" (4).

After the War, Miss Forrester-Brown worked in Dundee as Visiting Orthopaedic Surgeon to Fairmuir Specialist School. Further publications included "Sacro-iliac strains" and "Some modern methods in the treatment of bone and joint tuberculosis". In 1923 she was awarded the William Gibson Research Scholarship of the Royal Society of Medicine, London for three years, enabling visits to orthopaedic clinics in the United States, Italy, France,

Norway, Sweden, Denmark and many centres in Britain. Detailed reports of these visits (9) express special interests in appliances and splints used by Putti of Bologna and Goldthwait of Boston, USA, in sunlight methods for bovine tuberculosis in Switzerland and in gymnastic exercises employed in Swedish and Danish hospitals. When the scholarship lapsed she continued similar visits abroad. Stirling commented:

Miss Forrester-Brown spent one vacation every year visiting orthopaedic clinics. There must be few in Europe who did not at one time or another entertain this avid enquirer, and few who did not gain from her visit. (2)

The Bath and Wessex Children's Orthopaedic Hospital

An orthopaedic clinic was established in Bath in 1922 under the care of two general surgeons, WG Mumford OBE, FRCS and JS Levi MC, MB of the Royal United Hospital who became the first surgeons to the Children's Orthopaedic Hospital opened in May, 1924 with 20 beds; specialist opinion was provided by Sir Robert Jones and GR. Girdlestone as Honorary Consultant Surgeons. It is probable Sir Robert Jones was instrumental in supporting the appointment of Miss Forrester-Brown to the Hospital as noted in first Annual Hospital Report of December, 1924 (10). She commenced in Bath in May, 1925 as Resident Medical Officer and Visiting Surgeon to Clinics. As she had responsibility a burgeoning number of children's clinics throughout Somerset and Wiltshire, she soon acquired a major proportion of the hospital beds. By 1926 these numbered 72 for she was attending clinics in Somerset at Taunton, Weston-super-Mare, Bridgwater, Yeovil, Radstock, Frome and Glastonbury, and in Wiltshire at Corsham, Salisbury, Swindon and Trowbridge. A clinic at Devizes, established by GR Girdlestone of Oxford, was under the care of Messrs Mumford and Levis, as were the clinics at Bath itself. At the Orthopaedic Hospital in 1924 only 51 operations were performed, increasing in 1926 to

140 and in 1927 to 237 (10).

With the addition of Dorset to the Hospital's responsibilities in 1930, Miss Forrester-Brown was termed Visiting Surgeon to the Bath, Somerset and Dorset Central Children's Hospital and Clinics. Former staff told me she would disappear into Dorset for a week at a time, allegedly on horse-back, visiting Dorchester, Weymouth, Bridport, Sherborne, Wimborne and Swanage; Robert Robins FRCS, orthopaedic house surgeon in 1947, tells me this was known as her "out-week" (11). In 1931 the hospital title was shortened to The Bath and Wessex Children's Orthopaedic Hospital whilst a special unit of twenty beds for babies was opened. At this time, 14 major clinics were visited monthly by surgeons and 14 minor clinics were attended by 'after-care' sisters (fig.2).



FIG. 2 Map of clinics dependant on the Bath and Wessex Children's Orthopaedic Hospital, 1939 (private collection)

In 1934, WG. Mumford retired, followed in 1935 by JS. Levis when John Bastow MD, FRCS was appointed Second Surgeon and Visiting Surgeon to the clinics of Wiltshire, Miss Forrester-Brown becoming Senior Surgeon and Visiting Surgeon to Bath, Somerset, Dorset and Swindon Clinics. Although Miss Forrester-Brown never dealt with acute traumatic cases, she took increasing responsibility for adult cases, often former children under her care. During 1935 Captain Ronald Wills provided a babies annexe with a remedial pool donated by Miss Forrester-Brown in memory of Sir Robert Jones who had died in 1933.

With the outbreak of World War Two, the Orthopaedic Hospital was designated suitable for the Emergency Hospital Scheme and extra beds were arranged. Fortunately these were never required just as a demand for children's beds intensified; in addition extra accommodation for recovering patients was arranged at Southstoke House near Bath. During the Baedeker air-raids on Bath in 1942, the Hospital was only slightly scarred and no-one was injured. After the War Miss Forrester-Brown and Mr Bastow were attending 21 children's clinics, and after-care sisters another 10 clinics. In 1947, Robert Robins has vivid memories of Miss Forrester-Brown operating:

She was a dab hand with a Thomas's wrench for relapsed club feet – 'mush it up' was her advice. She never picked up a vessel unless it could be done with Oschner's forceps and ligated with chromic catgut of her own manufacture. Before closing a hip operation she would empty a galley pot of neat iodine into the wound. She would not allow her patients to have a blood transfusion, even after a Hibb's fusion for scoliosis ("overlap the bones like the 'shlates' on a roof") or an arthrodesis of the hip, but the surgeon of today may be unaware of the efficacy of a plaster spica in securing haemostasis and in counteracting shock (11).

With the implementation of the National Health Service Act of 1948, Miss Forrester-Brown was termed Consultant Orthopaedic

Surgeon until her retirement in 1950 aged 65 when she returned to Edinburgh to assist Sir James Learmonth's investigations into peripheral nerve repair. She also worked as a locum in various centres including the Holy Cross Hospital, East Pondoland in the Transkei during 1958-9 where clinical problems resembled those experienced in her early career (2). Retaining Edinburgh as her base, she continued to attend meetings and, at a Congress of the British Orthopaedic Association in her late 70's the writer recalls a session when she stood up to question , or more commonly to instruct, every speaker.

CLINICAL EXPERIENCE AND FURTHER PUBLICATIONS

The Annual Reports of the Hospital contain brief reports on admissions reflecting Miss Forrester-Brown's practice. In most years, congenital deformities formed the largest group followed by surgical tuberculosis and poliomyelitis. Osteomyelitis, spastic paralysis, scoliosis, tumours, old bone and nerve injuries formed a significant remainder. Rickets remained a lesser problem as late as 1947 (10). Today in complete contrast, tuberculosis, poliomyelitis, osteomyelitis and rickets produce very few admissions to British hospitals and most children's orthopaedic units have closed.

In 1929 Miss Forrester-Brown published *Diagnosis and Treatment of Deformities in Infancy and Childhood* (fig. 3) aimed to assist early diagnosis by general practitioners and child welfare staff for, as she lamented, too many congenital defects were established before late referral, often when walking. In the preface she recorded:

...the orthopaedic surgeon ... rarely gets a case in the stage at which slight and gentle corrective measures can be expected to restore normal structure and function...he usually has to cope with a deformity which is fixed, and requires prolonged tedious treatment, whose result can by no means be guaranteed.

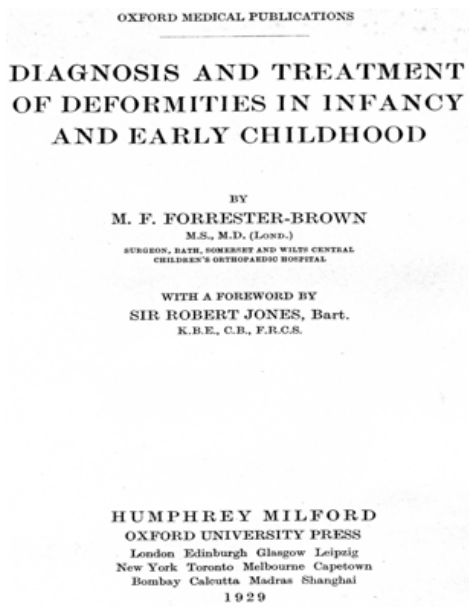


FIG. 3 Title page of Miss Forrester-Brown's book on children's deformities, published in 1929 (private collection)

In 1933 she co-authored with RG. Gordon MD. DSc. FRCP, colleague and Neurologist to the Orthopaedic Hospital Paralysis in Children in the belief their combination filled a gap in the literature to promote an accurate diagnosis and enhance surgical management. In 1935 she assessed 152 personal cases of congenital club foot in the Journal of Bone and Joint Surgery, a major experience accumulated over a mere ten years, to emphasise the importance of early conservative care. In 1947 she lectured at the Royal College of Surgeons of England on Operative procedures in poliomyelitis, published in their Annals, demonstrating her monumental experience. Recognition of this and her many other contributions with an award of an Honorary Fellowship of the College would have proved appropriate but the opportunity was overlooked.

PROFESSIONAL RESPONSIBILITIES, ATTAINMENTS AND LEISURE PURSUITS

Miss Forrester-Brown was a member of the British Medical Association for over 50 years and of the Association's Physical Education Committee formed in 1935 to report on the physical development of the civil population (2). In 1921 she was elected a member of the British Orthopaedic Association, becoming Honorary Secretary in 1937, an Executive Committee member in 1948-9 and an Emeritus fellow in 1961 (12). When the British Orthopaedic Association held their first visit abroad in 1924, at Bolgona, Miss Forrester-Brown was in the party; she visited Italy again in 1956 when meetings were held in Rome, Florence, Pisa (fig. 4) and Bologna, and further meetings in France and Scandinavia.



FIG. 4 Maud Forrester-Brown aged 70, visiting Pisa with Cyril Slack FRCS in 1956
(courtesy of Cyril Slack)

She joined the International Society for Orthopaedic and Trauma Surgery, later being elected an Emeritus Member, and also the Medical Women's International Association, attending their 9th Congress in the Phillipines in 1963 (2). From 1926 she was a member of the Orthopaedic Section of the Royal Society of Medicine.

As a result of friendship with Vittorio Putti, the leading orthopaedic surgeon in Bologna she produced English summaries for the journal *Chirurgia degli Organi di Movimento* and also translated his book as *Historic Artificial Limbs* in 1930. Stirling maintained she was fluent in five languages including Spanish, first studied in her sixties, and added:

She had a keen interest in all classical forms of drama, sculpture and painting, a wide knowledge of old masters, especially those of the Italian schools and a catholic grasp of literature. Indeed her retentive memory and critical abilities made discussion of literature with her a formidable task.

He also commented:

Bodily fitness was not only a sermon to be preached to others; it was a goal to which she strove all her life – by ski-ing, skating, riding, golf and swimming. She took a vacation each February for winter sports, usually in Norway. Many associates must remember the twinkle in her eyes when she slipped away from a congress session with the murmur “I have an appointment with a horse”.(2)

As noted she was said to visit country clinics on horseback and , according to Robert Robins, she often arrived similarly at the hospital despite the near proximity of her house. Her swimming skills were significant according to a Bath press report in 1930 which recorded her fine exhibition of diving at a swimming gala. This enthusiasm for physical exercise and postural regimes stimulated her donation of a Posture Cup for the girls of her old school, Bedford High School in 1934. However, despite much physical activity, she may

have suffered from osteoporosis, for she sustained at intervals four fractures after the age of 60, involving an ankle, a collar bone, a hip and an elbow. The hip fracture was nailed successfully in Edinburgh, followed by a convalescent voyage to Capetown by a ship with a mechanical horse, offering exercise for riders and avidly utilised by Miss Forrester-Brown (2). On return she informed surgeons at the Bath and Wessex Orthopaedic Hospital how the mechanical horse had speeded her recovery and hence was a break-through in rehabilitation for hip fractures. When she offered to buy such a machine for the hospital, she was politely persuaded this would be inappropriate even dangerous for fragile patients who, with very few exceptions, were unfamiliar with horse-riding.

Miss Forrester-Brown's remained in Edinburgh during her final years and died following a cerebro-vascular accident, in Edinburgh Royal Infirmary on 12th January 1970, aged 84 years.

CONCLUSION

Maud Forrester-Brown was undoubtedly the first female orthopaedic surgeon in the United Kingdom and possibly world-wide. Ruth Jackson was the first female orthopaedic surgeon to practise in the United States in 1932, becoming a member of the American Academy of Orthopaedic Surgeons in 1937 (13). Possible earlier female surgeons in Continental Europe remain undiscovered by the speaker.

As is evident, Miss Forrester-Brown made significant contributions to orthopaedic science and literature, sparing no effort to keep in touch with developments at home and abroad. Her international connections were extraordinary, even before the establishment of comprehensive air transport. Everyone who remembers her, including the writer, recalls a formidable personality with firm convictions based on prodigious experience

of childhood deformities before most current preventive and therapeutic remedies had emerged. She was a devoted surgeon and an exceptional woman who, sadly, never featured in an Honours List, nor in the Oxford Dictionary of National Biography. Happily, recent representations by the speaker have persuaded the Dictionary to accord her an entry, in 800 words, which may be published in 2009.

REFERENCES

1. Certified copy of an entry of birth, Maud Frances Brown, Enfield Sub-district, Middlesex, registered 22nd December, 1885.
 2. Stirling, R.I. "Obituary of Maud Frances Forrester-Brown" *J Bone Joint Surgery* 1970; 52B: 578-9.
 3. Application for admission, 1906, Royal Free Archive, London (Royal Free Hospital School of Medicine for Women) Registry records, student files, 873, Maud Forrester-Brown.
 4. Forrester-Brown, M.F. Personal statement of application and reference letters for William Gibson Research Scholarship, 1923. Archives, Royal Society of Medicine, London Access No. 1 /4 [1&2] [a]
 5. Stiles H.J. & Forrester-Brown M.F. *Treatment of Injuries of the Peripheral Spinal Nerves* (London: Frowde, Hodder & Stoughton, 1922).
 6. Forrester-Brown M. "Difficulties in the diagnosis of nerve function" *Brit J Surg* 1920; VII: 495-501, and Forrester-Brown M. "The possibilities of end to end suture after extensive nerve injuries" *J Orthopaedic Surgery* 1920; XIX: 277-287.
 7. Forrester-Brown M. "A study of operations for nerve injury at Bangour" In Jones R. (Ed.) *Orthopaedic Surgery of Injuries* (London: Frowde, 1921) v.2: 415-430.
 8. Forrester-Brown, M. "Study of some methods of bone grafting" *Brit J Surg* 1921: IX: 179-199.
 9. Forrester-Brown M. Reports on William Gibson Research Scholarship 1924-1926 in MS, Archives Royal Society of Medicine, London.
 10. First Annual Report of the Bath, Somerset and Wilts Central Children's Orthopaedic Hospital, 1924, and subsequent Annual Reports to the Twenty Second (final) of the Bath and Wessex Orthopaedic hospital in 1947.
 11. Robins R.C.H. "An orthopaedic original" *Brit Orthopaedic News* Autumn, 1992: 17.
 12. British Orthopaedic Association, Minute book in MS, 1921: and Annual Reports 1937, 1949 & 1961.
 13. Anon. "Ruth Jackson Orthopaedic Society" *Brit Orthopaedic News* Autumn 1994: 16.
- See also: Kirkup J. "Maud Forrester-Brown (1885-1970): Britain's first woman orthopaedic surgeon" *J Med Biog* 2008; 16: 197-204