



AUCKLAND MEDICAL HISTORY SOCIETY

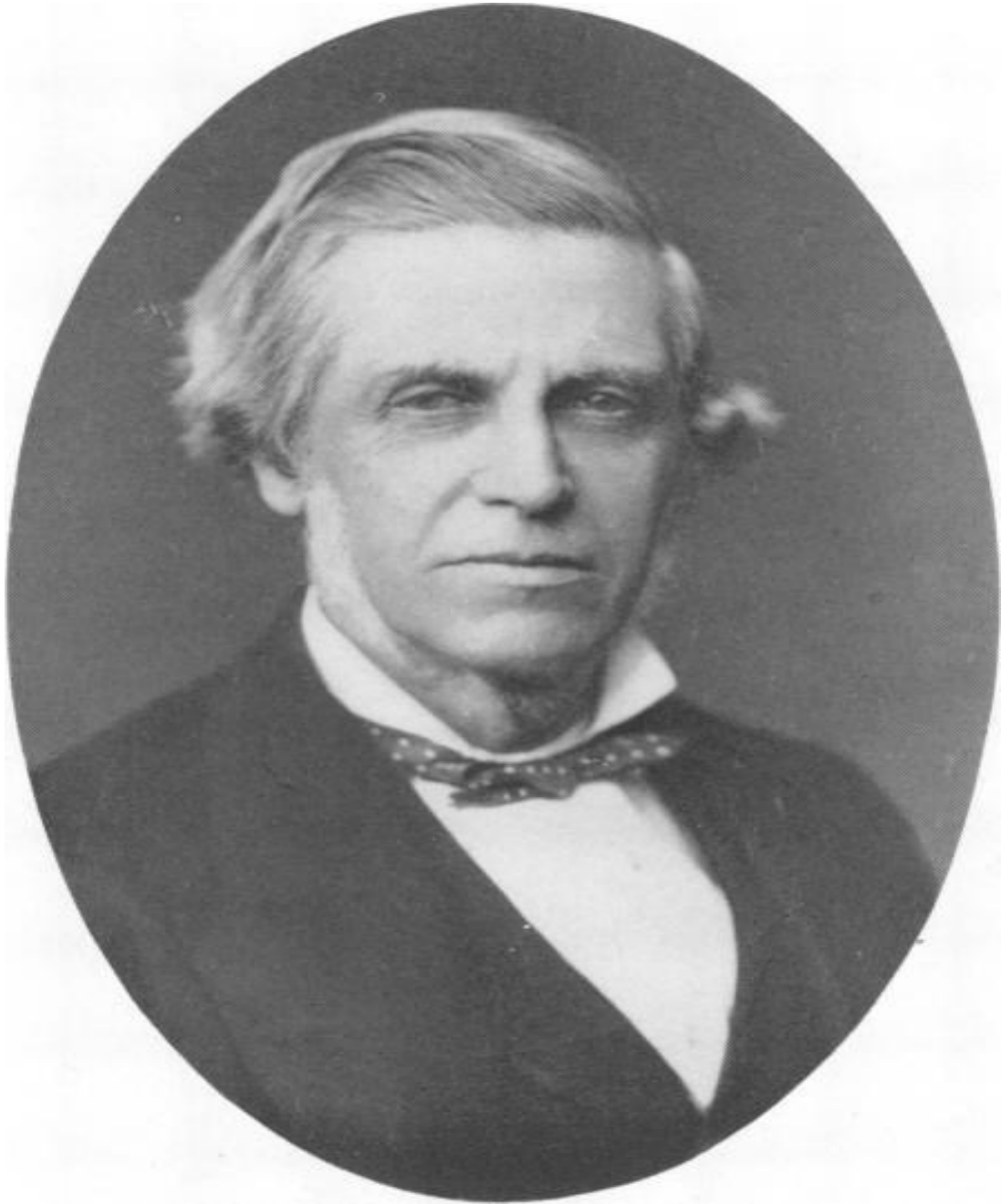
2023 Lecture Series

Cardiac Pacing, Sir William Bowman [1816 – 1892], and Jerusalem.

Ross Blair
ED KGSJ MB ChB FRACS
FACS

2nd Nov. 2023

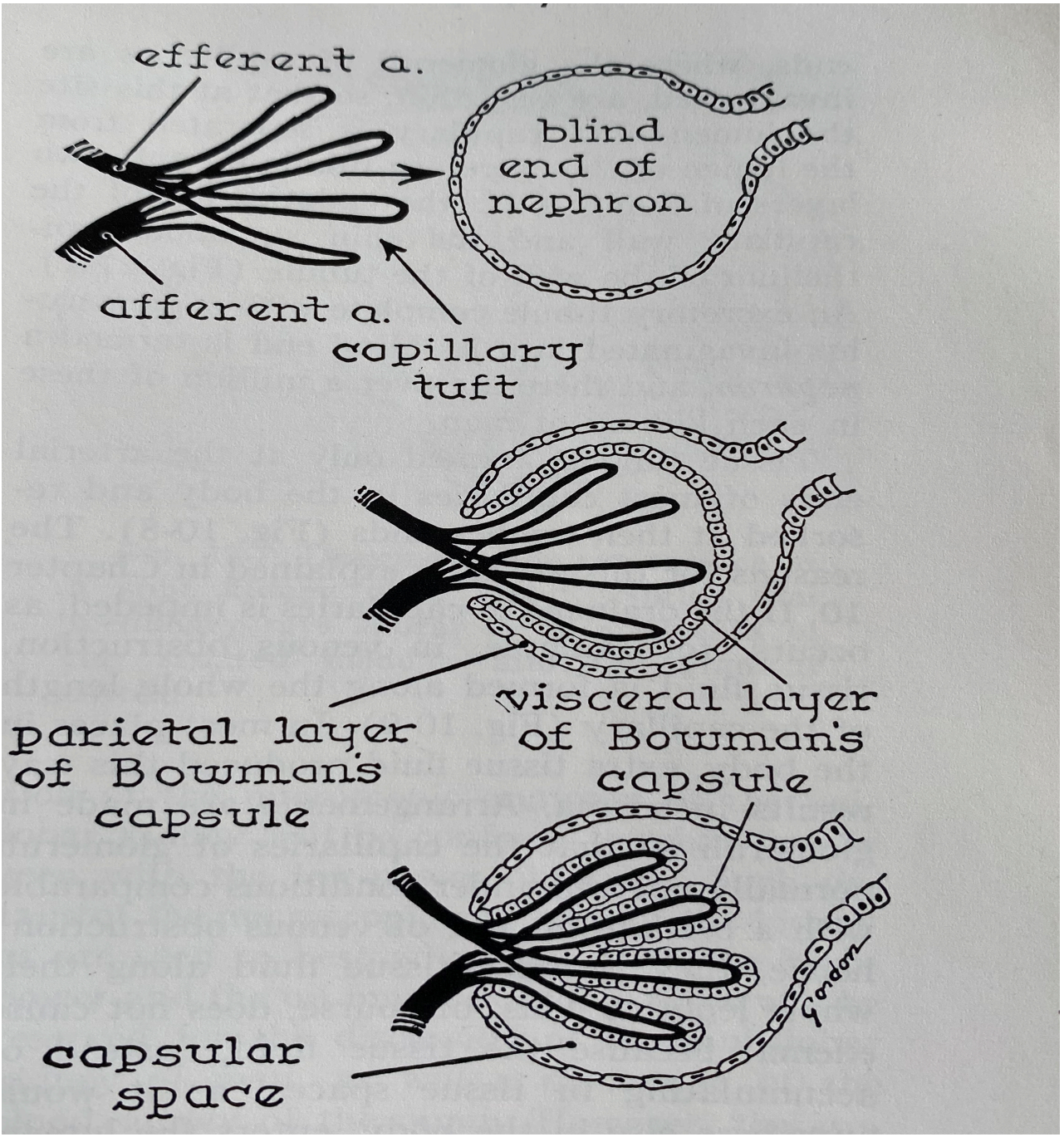


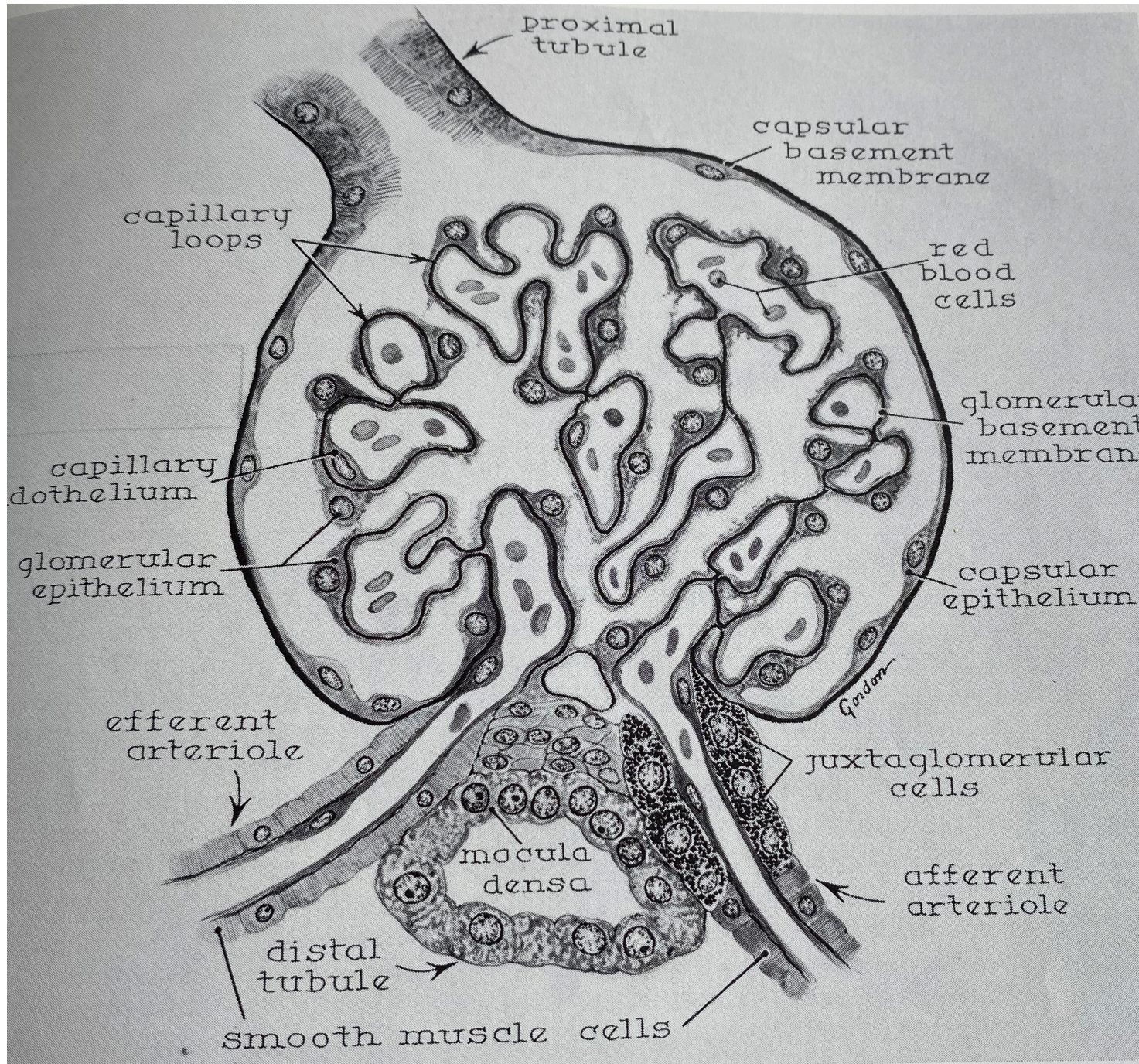


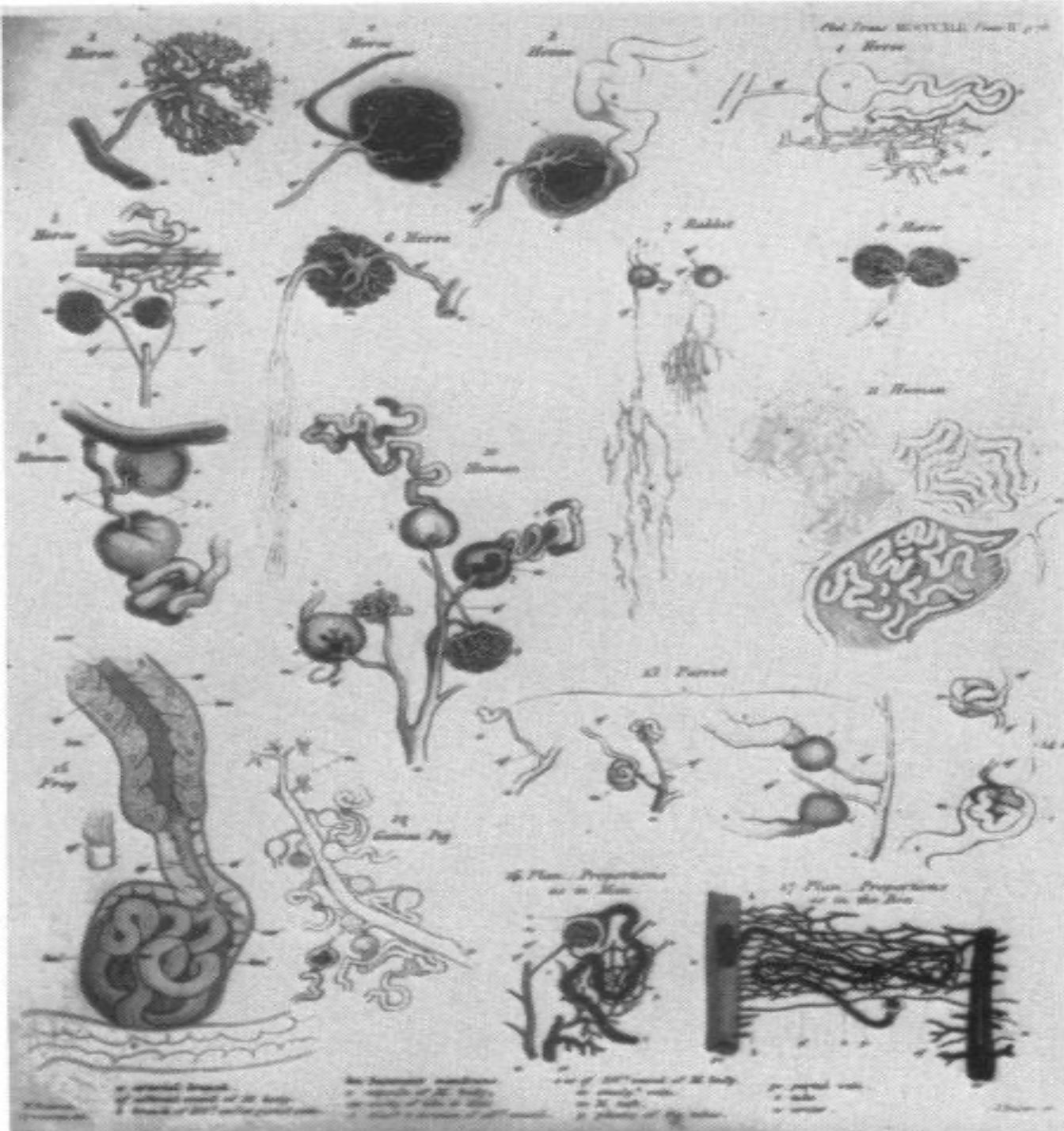
Sir William Bowman

1816 - 1892

Malpighian/Renal Corpuscle formation and Bowman's Capsule







Drawing from Bowman's paper to the Royal Society, 17th Feb 1842

'On the structure and use of the Malpighian bodies of the kidney'.

Theory of the function of the kidney
Secretion/Filtration ?

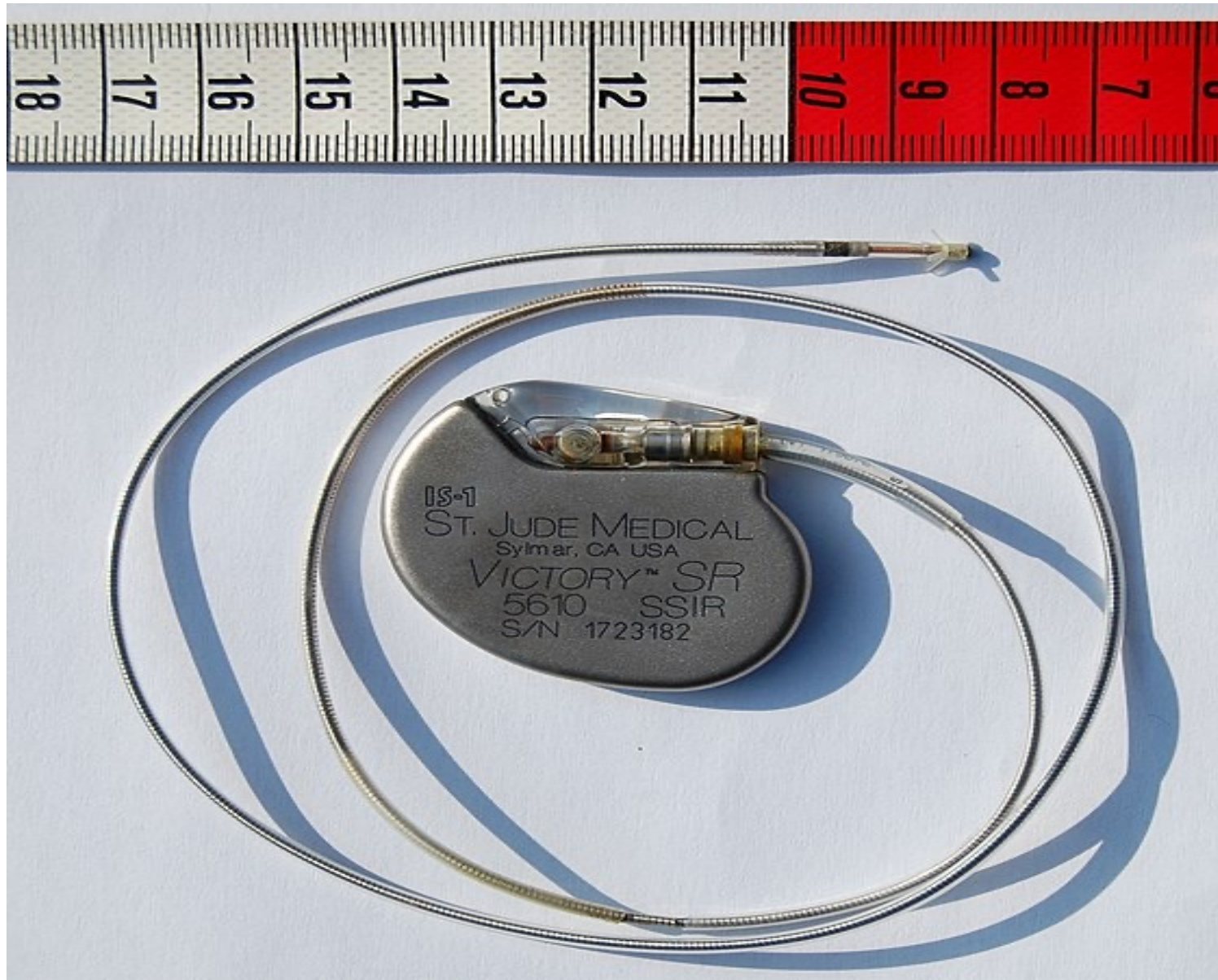


David Cole

Cardio- thoracic Surgical Unit
Greenlane Hospital

1967

Cardiac Pacing with Epicardial
Electrodes.
Implanted Pacemaker Unit Abdomen



Pacemaker with Unipolar
Ventricular Electrode



Atrial and Ventricular
Electrodes



VIIIth WORLD SYMPOSIUM
ON CARDIAC PACING
AND ELECTROPHYSIOLOGY

JERUSALEM, ISRAEL 7-11 JUNE, 1987

PROGRAM

Rembrandt's
1639



Rembrandt f. 1039







Rex Wright- St Clair [1922 – 2005]

Medical Superintendent Waikato Hospital

Medical Officer of Health

Medical Historian

Paper on Spinal Paraplegia. read

before the Birmingham Med Students' Debating Society

Nov. 14. 1835.

And again read Jan. 10. 1839 with alterations & cases, before Kings Coll. Med Students' Society

As my turn came to introduce a subject for the consideration of the society, I was much perplexed in the choice, and when I at length fixed upon that of Spinal Paraplegia I was not without misgivings that I should be unable to grind it in to such a state worthy to be brought before you, but in selecting a symptom rather than a disease which may depend upon the existence of numerous states of disease, I confess I was not without hopes of being able to bring within the scope of the paper, such a variety of matter, as would furnish the means for a discussion at once useful and diversified without our being clogged with dry restrictions or uninteresting or trivial considerations; and the main object being thus obtained, I thought you could with more justice forgive the many imperfections, that I fear will be but too evident in every page.

Paraplegia is one of the most distressing afflictions to which the human race is liable. From its lingering and permanent nature, and the condition of utter helplessness to which it reduces its victims, it has very peculiar claims upon our notice and as we can only hope to combat it, by acquiring a more accurate knowledge of those forms of disease which occasion it and of those symptoms by which these may be distinguished from each other, I shall make no apology for dwelling chiefly on these points. In all instances, a correct diagnosis is desirable, but in none more than the present, where apparently the same affection may depend upon very different states of disease, and where the ablest practitioners will sometimes be at a loss to determine whether the object of his attack be the brain, or the spinal marrow, or some organ distinct from both, and such occasionally is the obscurity in which these cases are involved, that we can only hope to arrive at a just opinion of their nature by accurate observation of the effect of our remedial agents, in hastening, protracting, or averting a fatal termination; at a period, in fact, when, in the majority of cases, our treatment will no longer be of service.

Paper on Spinal Paraplegia
read before the Birmingham Medical
Students Society 14 Nov. 1835

And again read Jan. 10. 1839 with alterations, cases,
before
Kings College Med Students Society

On the Pathology of Fractures

(Written about January 1835 read before the Medical-Students Debating Society - of Birmingham)

extensive
may re-
arrange

An inquiry into the mode by which fractured bones unite, may at first sight, appear of so little importance to us in the daily practice of our profession, as to lay ourselves open to your censure, on the ground of my diverting your attention from substantial and weighty investigations, to dwell on the more ornamental, but less solid departments of Chirurgical knowledge - Some one will exclaim, "Experience has taught us in what manner we are to treat fractured limbs, how deformity is to be guarded against or remedied, how the union of the bones promoted, and the member restored to its former healthy condition - What avails it then to spend our time in searching more deeply into the secrets of nature, and in unravelling the laws by which she works?" Sufficient for us that we know what is useful - Let us reject the pleasing refinements of Pathological and Physiological research not indeed abandoned, but as worthy the attention only of the shallow superficialist, who in his eager pursuit of knowledge, becomes enamoured solely with the beauty of her attire, to the neglect of all her solid advantages." - But from sentiments such as these, I entirely dissent. Though our assisted observation has, I am ready to allow, done much for the advancement of our profession, its progress during the last half century has been almost solely owing to the lights cast over it by the important sciences just mentioned; and I hope to shew, that they have had no small share in the elucidation of the subject to which I shall now direct your attention; and that in this, as well as in other departments, their influence outsteps the really narrow bounds of empty theory, and extends to what is useful and practical. If, by scanning the operations of nature we can draw conclusions which bear upon the treatment of disease, we shall rejoice in being able to prove to the sceptic, that the moon that he considered barren, only wanted cultivation to be turned to profit and ~~useful~~ advantage.

Former
Theories
regarding
the forma-
tion of Cal-
lus.
+ Created a
Baronet 1834.

Before we can fully understand the doctrine of union established at the present day through the labours of Baron Dupuytren and of our distinguished countryman Sir Benj^{ts} Brodie^x we must advert to the various opinions, which have at different times been promulgated regarding the formation of callus. This I shall proceed to do, as briefly as is consistent with perspicuity and truth.

That of the ancients. It will be scarcely necessary to dwell for an instant on the crude notion of the ancients, concerning an osseous juice which they supposed to be poured out between the ends of the bone, and becoming concreted, to form an inorganic bond of union, like Roman cement or Paris Plaster. This explanation, it may be thought is deserving of little else than

On the Pathology of Fractures

Written about January 1835
Read before the Medical
Student's Debating Society
Of Birmingham

W. Bauman Esq.

Kings College



BINGHAM PHOT

W. Bowman. 1862

Liverpool January 20th 1825

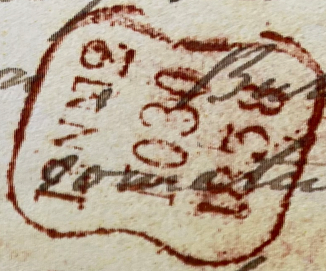
My Dear Mother

I like Liverpool very well and
love a ship when I was coming over the water
please to give my love to Father, and I remain
Dear Mother, your affectionate and dutiful Son

W. Bowman

i and I do not deny that
correct explanation. But
that this attitude sometimes
involuntary character of
marking the more common
Having been thus
ruled by custom
analysis.

of the Special &



Tottenham

Nov 30

1838

Sir William Bowman 1st Baronet

- Born in Nantwich, Cheshire 20th July 1816. Father banker and amateur botanist/ geologist.
- Hazelwood School Birmingham, Thomas Wright Hill Headmaster.
- Medical Student Birmingham 1832 - worked under Joseph Hodgson.
- 1837 Kings College, London - 'his being a Dissenter will create no difficulty'



Joseph Hodgson 1788 - 1869

Birmingham General Hospital 1821

Birmingham Eye Infirmary 1823

President Royal College of Surgeons
1864

Quaker

Kings College , London

- Medical Department founded in 1831 and foundation of the hospital 1839
- Bowman prosector for Robert Bentley Todd, Professor of Physiology
- 1841 structure of Striated Muscle and elected Fellow of the Royal Society.
- 1842 ' On the Structure and Use of the Malpighian Bodies of the Kidney', to the Royal Society. Awarded the RS Medal.
- Collaboration with Todd. Publication of the 5 volume ' Physiological Anatomy and Physiology of Man' (1843-1856) 'Cyclopaedia of Anatomy and Physiology (1852)
- Completed surgical Training 1844 – FRCS
- Ophthalmology

Robert Bentley Todd 1809-1860

Professor of Physiology
Kings College London



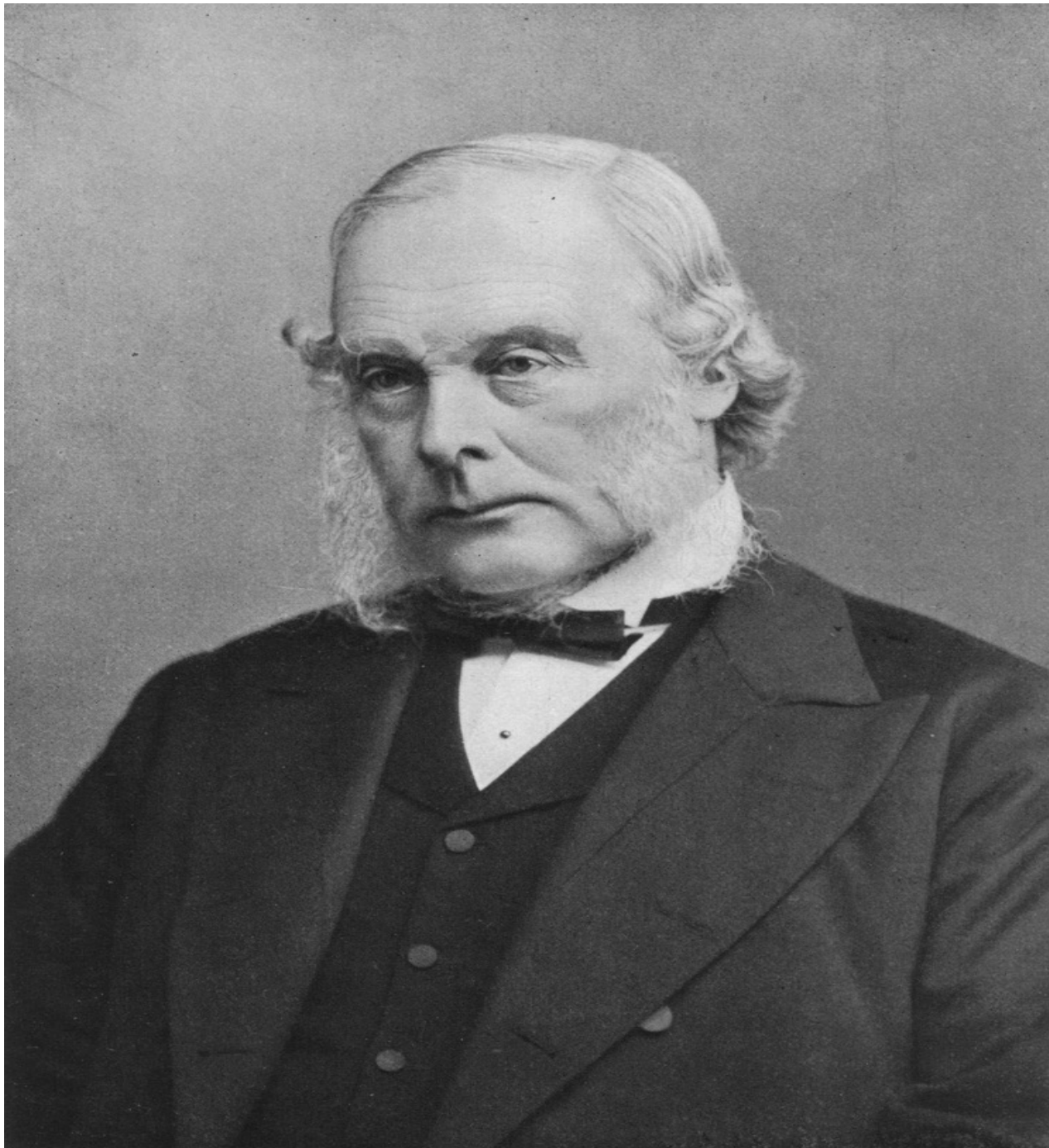


Joseph Jackson Lister

Wine Merchant

Achromatic lenses for
compound Microscopes

*Joseph Jackson Lister
from a photograph by Huall & Co. London*



Joseph Lister,
1st Baron Lister

1827 - 1912

The Manuscripts of Sir William Bowman

- Sanderson J B , Hulke J W (Editors) Collected Papers of Sir William Bowman. 2 Volumes. London, Harrison & Sons . 1892
- The Manuscripts of Sir William Bowman . K. Bryn Thomas – Paper Kings College Hospital, 1965
- Manuscripts in the possession of great grandson , which include the Nightingale letters

Case of Spinal Paraplegia
Paper on *Spinal Paraplegia* read before the Birmingham Med Students' Debating Society
Nov. 14. 1835. *Case of Pott's Disease & Brodie's Abscess*

And again read Jan 10. 1839 with alterations & cases before Kings Coll. Med & Science Society.

As my turn came to introduce a subject for the consideration of the society, I was much perplexed in the choice, and when I at length fixed upon that of spinal paraplegia I was not without misgivings that I should be unable to grind it in to such a shape as to be worthy to be brought before you, but in selecting a symptom rather than a disease which may depend upon the existence of numerous states of actual disease, I confess I was not without hopes of being able to bring within the scope of the paper, such a variety of matter, as would furnish the means for a description at once useful and diversified without our being clogged with dry restrictions or uninteresting or trivial conversations; and the main object being thus obtained, I thought you could with more justice forgive the many imperfections, that I fear will be but too evident in every page.

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Manuscripts Photocopied

Paper on Spinal Paraplegia read before the Birmingham Med Student Debating Society Nov .14.1835

And read again Jan 10.1839 with alteration & cases before Kings Coll. Med & Science Society

Long introduction crossed out

Most frequent form 'Has its primary seat in the bones'
Described by 'the illustrious Pott' - Pott's Disease,
The 'Scrofulous state' Ramollissement

References - Brodie

Acute Myelitis

Other causes - Trauma, cancer, syphilitic, aneurysmal swellings, hysteria.

No mention of Spina bifida

Age 19 years

(Written about January 1835 - read before the Medical Students Debating Society - of Birmingham)

Preliminary remarks

An inquiry into the mode by which fractured bones unite, may, at first sight, appear of so little importance to us in the daily practice of our profession, as to lay me open to your censure, on the ground of my diverting your attention from substantial and weighty investigations, to dwell on the more ornamental, but less solid departments of Chirurgical knowledge - Some one will exclaim, "Experience has taught us in what manner we are to treat fractured limbs, how deformity is to be guarded against or remedied, the union of the bones promoted, and the member restored to its former healthy condition - What avails it then to spend our time in searching more deeply into the secrets of nature, and in unveiling the laws by which she works? Sufficient for us that we know what is useful - Let us reject the pleasing refinements of Pathological and Physiological research not indeed as absurd, but as worthy the attention only of the shallow superficialist, who in his eager pursuit of knowledge, becomes enamoured solely with the beauty of her attire, to the neglect of all her solid advantages." - But from sentiments such as these, I entirely dissent. Though unassisted observation has, I am ready to allow, done much for the advancement of our profession, its progress during the last half century has been almost solely owing to the lights cast over it by the important sciences just mentioned, and I hope to shew, that they have had no small share in the elucidation of the subject to which I shall now direct your attention; and that in this, as well as in other departments, their influence outstrips the really narrow bounds of ~~theory~~ theory, and extends to what is useful and practical. If, by scanning the operations of nature we can draw conclusions which bear upon the treatment of disease, we shall rejoice in being able to prove to the sceptic that the moon that he considered barren, only wanted cultivation to be turned to profit and ~~advantage~~ advantage.

Former theories regarding the formation of Callus.

+ Created a Baronet 1834.

That of the ancients.

Before we can fully understand the doctrine of union established at the present day through the labours of Baron Dupuytren and of our distinguished countryman Sir Benj^{ts} Brodie⁺ we must advert to the various opinions, which have at different times been promulgated regarding the formation of callus. This I shall proceed to do, as briefly as is consistent with perspicuity and truth.

It will be scarcely necessary to dwell for an instant on the crude notion of the ancients, concerning an osseous juice which they supposed to be poured out between the ends of the bone, and becoming concrete, to form an inorganic bond of union, like Roman cement or Paris Plaster. This explanation, it may be thought is deserving of little else than

On the Pathology of Fractures

Written about January 1835, read before the Medical Student Debating Society of Birmingham.

Preliminary remarks - The value of understanding the mode of fracture healing

Formation of Callus . Various opinions . Baron Dupuytren, Sir Benjamin Brodie, Duhamel du Monceaux, Bordenave.

Failure to unite - Lues, cancer, scurvy, scrofula

Healing assisted by compression

Manipulation to correct deformity when Callus present

Legacy of Sir William Bowman

- Anatomy and Physiology - structure of striated Muscle, mucous Membrane of the alimentary tract, Kidney ,Bowman's Membrane in the cornea, Bowman's Glands in the olfactory mucosa
- Ophthalmology – Founder Ophthalmological Society 1880, Royal College of Ophthalmologists. Annual 'The Bowman Lecture.'
- Promoted the use of the Ophthalmoscope (Helmholtz 1851)
- Queen Victoria 1884 Baronet.
- Married Harriet Paget 1842 - seven Children.
- Built 'Joldwynds' in Surrey 1870, Philip Webb architect



Joldwynds

Dorking
Surrey

Designed and built
Phillip Webb 1873