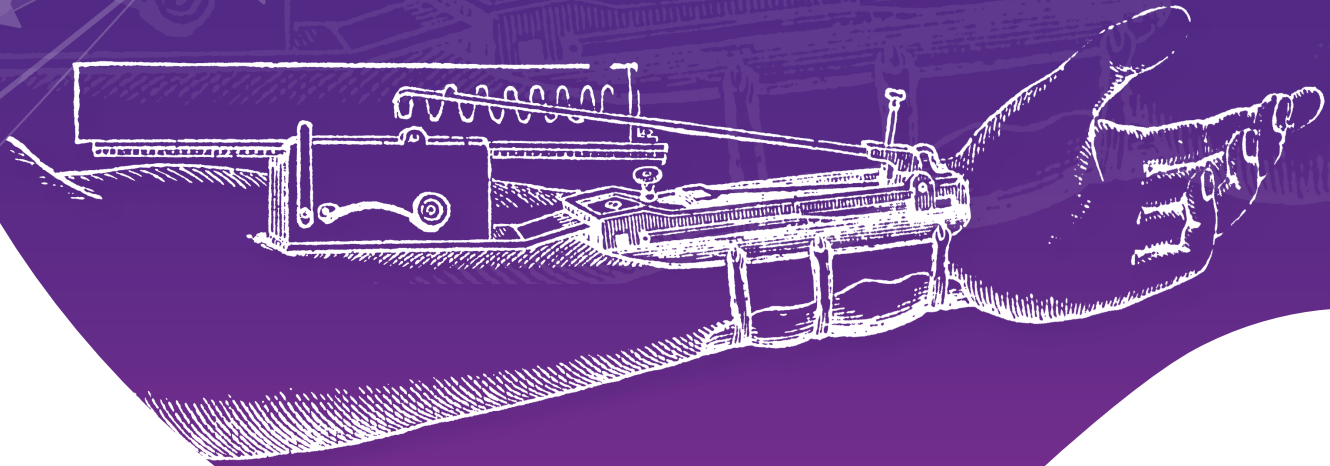


The Sphygmograph



Journal of the Marks-Hirschfeld
Museum of Medical History

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THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE



Curator's introduction

Welcome to the 83rd edition of our newsletter.

Thank you for once again spending some time with The Sphygmograph. Find yourself a comfy spot on the couch/desk chair/train seat because this edition features an exciting set of articles sure to keep everyone entertained.

The Museum's most recent volunteer Dr John Earwaker shares his passion for radiology with a look at one of the Museum's most treasured objects – the first known x-ray machine in Queensland. It arrived and was in use within 6 months of x-ray technology being discovered by Roentgen in Europe. We are thrilled to have such an experienced and knowledgeable radiologist on the Museum team. Welcome John.

Our resident interviewer Gertrude Behan gives an account of Ann Jackson's recent visit to the Museum to see Dr Ernest Sandford Jackson's travelling medical chest. Sandford Jackson was Ann's great grandfather, and she has memories of the case as a girl. Made in the mid-late 1800s, it is a beautiful piece I encourage you all to come and see.

This edition also includes the second instalment of articles from the fabulous Museum of Dentistry (MoD) established by the ADAQ. It's a rollicking read, looking at the advertising practices of early Queensland dentists. It's amazing what people used to get away with!

As we meander towards Christmas, I hope these end months find you ready to relax and celebrate the year that was. My heartfelt thanks to everyone in our Museum community for your continued support. Happy holidays!

All the best,



Charla Strelan

Curator
Marks-Hirschfeld Museum of Medical History



Rotten teeth in order strung

Advertising & the Ethical Dentist

Today, dental practices are regulated health services and must follow AHPRA's guidelines for advertising. In Queensland, dentistry remained unregulated until 1901, therefore anyone could claim to practice and promote their services. The main selling point was painless and affordable tooth extraction through chloroform, ether or laughing gas.

Restrictions became necessary to stem the activity of unscrupulous tooth pullers and to create a fair ground for the duly qualified and ethical dentists who advanced the professional standing of their field. In the early days of travelling quacks and barber-surgeons, Western dentistry really just involved gruesome extractions.

A popular way to advertise dental work to illiterate customers was to hang pails of blood and teeth strung together. The black and white bands of the barber pole still hint at these cups lined with red rags.

*His pole with pewter basons hung
Black rotten teeth in order strung.
Rang'd cups, that in the window stood,
Lin'd with red rags to look like blood.*

John Gay, Fable 22. (1700s)

As late as the 19th century, dentists continued to display dentures, extracted teeth and their tools, such as tooth keys, as a way to show their skills to prospective patients.



*Tooth necklace, crafted of unwanted third molars and other teeth extracted for overcrowding.
ADAQ Museum of Dentistry.*

Advertising & the Ethical Dentist

DENTURES FOR SALE

With easily available anaesthetics and the advent of more affordable vulcanite dentures, unscrupulous practitioners would advertise the economic advantages of having all teeth removed and replaced by false teeth. In the early days of European settlement, many Queenslanders were scammed into extractions of healthy teeth, because: "...wholesale extractions with vulcanite plates pay well" (Odontological Society of Queensland minutes).

It's not surprising that the recent excavation of the North Brisbane Burial Grounds revealed many edentulous skulls. The only treatment available to most was visiting the surgeon appointed to the Colonial Medical Service, or a meeting with a shady tooth extractor.

The first Brisbane-made dentures appeared around 1854. Dentures were often advertised as available for sale through mail order from London. In some cases, used denture plates were re-sold at discounted prices to the very poor.

As dentistry began to be recognised as a health profession in Britain, many qualified dentists, armed with their new Licence of Dental Surgery – as awarded by the medical school – bravely relocated to the antipodean colonies and set

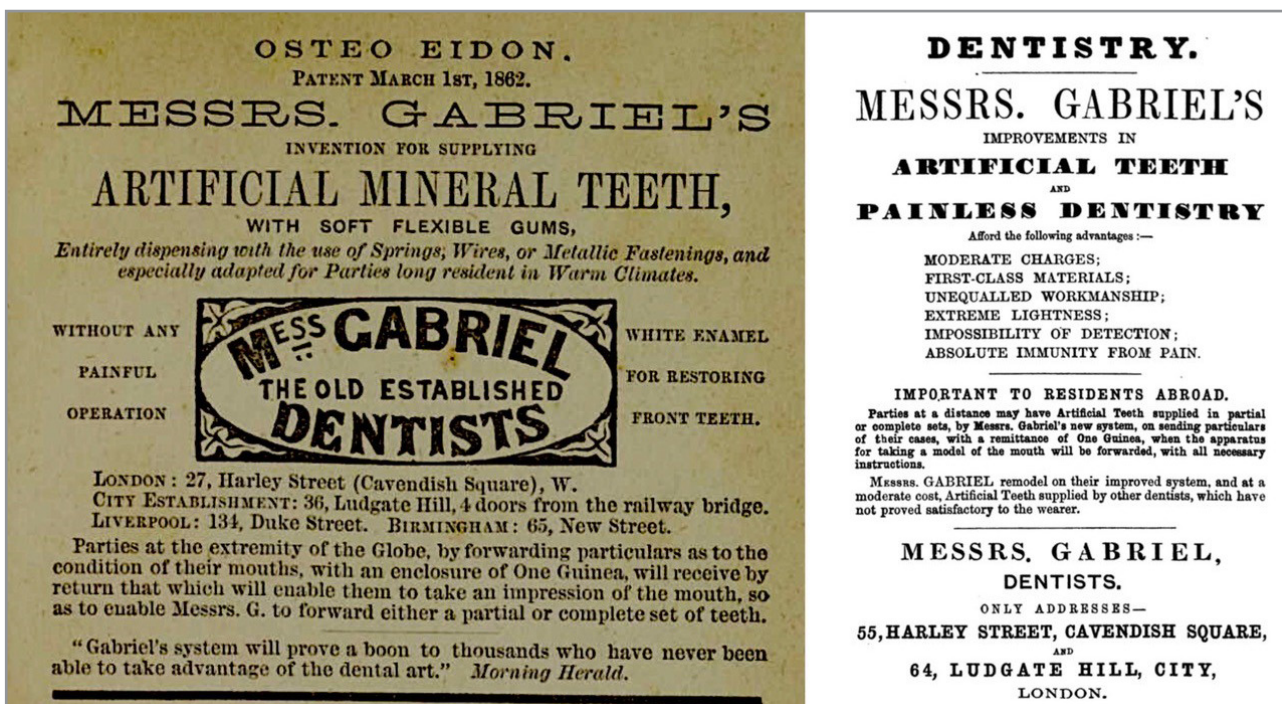
up private practice. These young professionals often travelled around the state, advertising in the local paper where and when they would be available for consultation, often at the local hotel or pub.

THE ETHICAL DENTIST DOES NOT ADVERTISE

Queensland's *Dental Act 1901* defined dentistry quite poorly, so dodgy tooth pullers continued their practices until the 1920s legally, as long as they did not use the word: *dentist* in their advert.

The Odontological Society of Queensland fought bitterly against the *shameful advertising of most extravagant and unethical claims by charlatans* that stole their patients, and thus their livelihoods. The fight took the shape of advocacy for regulation and recognised university qualifications became the main weapon. The other weapon was drafting a Code of Ethics for the profession, that heavily restricted advertising.

The minutes of the Society meetings show some lively debates about the ills and shames of advertising dental work. Supporters argued that advertisers were useful to patients who could not go to a dentist and pay ordinary fees. However, they were ostracised by those who



OSTEO EIDON.
PATENT MARCH 1st, 1862.
MESSRS. GABRIEL'S
INVENTION FOR SUPPLYING
ARTIFICIAL MINERAL TEETH,
WITH SOFT FLEXIBLE GUMS,
Entirely dispensing with the use of Springs, Wires, or Metallic Fastenings, and especially adapted for Parties long resident in Warm Climates.

WITHOUT ANY PAINFUL OPERATION

MESSRS. GABRIEL
THE OLD ESTABLISHED
DENTISTS

WHITE ENAMEL FOR RESTORING FRONT TEETH.

LONDON: 27, Harley Street (Cavendish Square), W.
CITY ESTABLISHMENT: 36, Ludgate Hill, 4 doors from the railway bridge.
LIVERPOOL: 134, Duke Street. BIRMINGHAM: 65, New Street.

Parties at the extremity of the Globe, by forwarding particulars as to the condition of their mouths, with an enclosure of One Guinea, will receive by return that which will enable them to take an impression of the mouth, so as to enable Messrs. G. to forward either a partial or complete set of teeth.

"Gabriel's system will prove a boon to thousands who have never been able to take advantage of the dental art." *Morning Herald.*

DENTISTRY.
MESSRS. GABRIEL'S
IMPROVEMENTS IN
ARTIFICIAL TEETH
AND
PAINLESS DENTISTRY

Afford the following advantages:—
MODERATE CHARGES;
FIRST-CLASS MATERIALS;
UNEQUALLED WORKMANSHIP;
EXTREME LIGHTNESS;
IMPOSSIBILITY OF DETECTION;
ABSOLUTE IMMUNITY FROM PAIN.

IMPORTANT TO RESIDENTS ABROAD.
Parties at a distance may have Artificial Teeth supplied in partial or complete sets, by Messrs. Gabriel's new system, on sending particulars of their cases, with a remittance of One Guinea, when the apparatus for taking a model of the mouth will be forwarded, with all necessary instructions.

Messrs. GABRIEL remodel on their improved system, and at a moderate cost, Artificial Teeth supplied by other dentists, which have not proved satisfactory to the wearer.

MESSRS. GABRIEL,
DENTISTS.
ONLY ADDRESSES—
55, HARLEY STREET, CAVENDISH SQUARE,
AND
64, LUDGATE HILL, CITY,
LONDON.

Advertisements in Queensland papers from London based practitioners.

found it unsafe, undignified, and immoral to advertise surgical procedures as commodities open for bartering:

"We as dentists are working on the human subject performing surgical operations, therefore any slovenliness on our part will endanger the health and life of the individual ... Other communities in other parts of the world realise this and are raising their standard of health which means raising their standard of dentistry. Italy for example requires that a dentist first graduate in Medicine..." (ADAQ Archives)

We don't name and shame, but the Americans did: the famous Painless Parker personified the advertising dentist as *'menace to the dignity of the profession'*, according to the American Dental Association. Accused of false advertisement, he went so far as to legally change his first name to Painless and kept going!

Nevertheless, Parker is today seen as a pioneer of the chain dentistry business and, in his own twisted way, of public oral health education. The Historical Dental Museum at the Temple University School of Dentistry exhibits a display dedicated to Parker, with his necklace of 357 carious teeth and a large wooden bucket filled to the brim with teeth he had pulled.

In 1912, the Council of the National Dental Association of Australia agreed on a Code of Ethics that clearly distinguished the *ethical* dental practitioners from the quacks still populating the streets. According to this early Code, the dentist:



Unethical advertising was not unique to Australia. In the US, Edgar Parker changed his name to Painless to continue his shrewd business. .

"...shall not exhibit or permit the display in connection with his name or practice in any window, shop or show case open to public inspection, any dental specimen, appliance, apparatus or professional card." Furthermore: "He shall not allow his name to appear on dentifrices, toothbrushes, or proprietary articles".

UNFAIR ADVANTAGE

However, these ethical concerns weren't directed to street tooth pullers alone. The 1936 draft text for the new ADAQ Code of Ethics shows that the rules also ensured a level playfield and no unfair advantages among the tight-knit group of member practitioners who drafted it, many of whom resided in the areas and competed for the same pool of wealthy patients!

DENTIST FINED

Alfred Ernest Ogilvie, dentist, of Stanley Street, South Brisbane, was proceeded against in the Summons Court, before Mr. P. M. Hishon, C.P.M., for a breach of the Dental Act. He was found guilty, and was fined 5/- with £2/8/- costs.

Mr. D. Wadley (O'Shea, Corser, and Wadley) appeared for the defendant, and Mr. Leonard Power (Power & Power) for the Dental Board.

Mr. Power stated that the defendant's attention was drawn in July, 1933, to certain signboards outside his premises as well as to advertisements, which constituted a breach of the regulations. The offence was not committed for some time, but about six months ago the defendant began to advertise.

A plea of guilty was entered, and Mr. Wadley said that the regulation which had been broken by the defendant was more often broken than observed.

*Dentists were regularly fined for breaches.
Source: National Library of Australia.*

The allowed signage for the premises was heavily regulated. Moreover:

"Any announcements by way of:

- a) Public hoardings*
- b) Advertising spaces*
- c) Theatre and Picture theatre screens without the approval of the Council*
- d) Programmes and tickets of all kinds*
- e) Dodgers and circulars, or any printed or written matter for circulation among the public MUST BE AVOIDED."*


With such strict restrictions, even the most prominent Queensland practitioners looked for ways to circumvent them, such as using the social pages rather than classifieds. This perhaps compares to today's social media posts?

Advertising & the Ethical Dentist, cont'd.

W. R. PARKER,
Dentist,
Edward-street, Brisbane.

"To him will I,"
—Shakespeare.
"As You Like It," Act V., Scene 4.

Should your molars ever trouble you,
And with agony up double you,
To this dentist quickly go;
Your groans will change to laughter,
you
Will feel so grateful after you
Have been by him relieved of woe.
He's good at filling teeth or filling 'em,
Considerate, too, to folk when billing
'em.



Cheeky cartoon of a prominent dentist, former ADAQ president and dental board member.

Source: National Library of Australia.

The 1930s Code of Ethics is however a lot closer to the wording of today's AHPRA guidelines for advertising health services.

Today, while unfair and unprofessional competition remains, the emphasis of ethical advertising is on the importance of not being misleading or deceptive for the benefit of the prospective patients' health and wellbeing.

DENTISTS

A A A A A A A

M A L L A N, D E N T I S T S

Complete Upper or Lower Sets of Teeth
from 30/.

**GOLD DUST £3/3/, ANATAFORM £4/4/,
UNBREAKABLE £5/5/.**
Repairs from 5/

GAS EXTRACTIONS.
Single Tooth 5/ Each additional tooth 1/.

Twenty or more £2.

**SUBSTANTIAL ALLOWANCE MADE FOR
EXTRACTIONS WHEN NEW PLATES ARE
ORDERED**

Teeth scaled, cleaned, and polished from 5/.

Amalgam or Porcelain Fillings from 7/6.
Gold Fillings (22ct. only), from £1/5/.

217 GEORGE STREET.
One Door from Queen Street, Brisbane.

A. Broken Dental Plate or Artificial Teeth
repaired from 7/6. Teeth X-rayed, 7/6.

EXTRACTIONS BY PAINLESS GAS
Single Tooth 5/ Extra Tooth 2/6.
Twenty or more teeth extracted, £2 2/.

Dental Surgeon,
McCLELLAND & SNEESBY,
Cnr. Queen and Albert Streets.

New sets of Viva Gum, Pink Teeth from
£3 3/ Amalgam and porcelain fillings from
7/6. Teeth cleaned and polished 5/ Gold
Fillings from £1 1/ B9510

H E A L. S A P S F O R D, S A P S F O R D,

Surgeon Dentists,
37 QUEEN ST 'PHONE B7688,
Opposite Old Town Hall.

PAINLESS EXTRACTIONS,
1/.

Upper or Lower Sets of Teeth from 35/ 50/,
63/ 84/ 105/ and 126/.

Remodels from 25/ Repairs from 5/.

Fillings from 5/.

How many breaches can you spot in this advertisement?

Source: National Library of Australia.



Sandford Jackson's Magnificent Travelling Chest

By Gertrude Behan



Let me introduce you to a beautiful and intriguing exhibit in the museum, the exquisite and meticulously made travelling medical chest circa 1880.

Dr Ann Jackson (pictured above) was always fascinated with this travelling medical chest, once belonging to her great grandfather Dr Ernest Sandford Jackson. As a child she explored it often when visiting her father, Dr Robert Jackson at his Medical Rooms in Wickham St, Brisbane .

Ann remembers her excitement in discovering a hidden compartment which she believes is for the hidden storage of narcotics.

This travelling medical chest was made in the UK, travelled to the Antipodes, and came into the possession of Dr Ernest Sandford Jackson.

Dr Ernest Sandford Jackson brought this medical chest with him when he served in the Middle East in WW1. I suspect many soldiers were very grateful for that narcotics compartment.

Many of you will know Dr Ernest Sandford Jackson as a visionary who lobbied the Queensland Government to establish its first medical school. Some believe that Dr Ernest Sandford Jackson's greatest contribution to Queensland health was his advocacy of public health measures such as measures to reduce mosquitos and instigating an investigation into the cause of lead poisoning, which, interestingly was shut down in 1922 by the Master Painters Guild.

Another of Dr Ernest Sandford Jackson's public health suggestions which may raise an eyebrow or two in 2022 was that syphilis should not only be a notifiable disease, but that patients with syphilis should be prevented from marrying.

I am very grateful to Dr Ann Jackson for taking the time to come into the Museum and introduce me to her great grandfather's exquisite travelling medical chest and share personal family stories.



“A new kind of Rays” comes to Queensland

By Dr John Earwaker



*X-ray induction coil, Burgoyne & Co, c. 1896.
Collection of the Marks-Hirschfeld Museum of Medical History.*

Whilst investigating the effects of passing an electrical current through a vacuum tube on November 8th 1895 Professor W.C Roentgen observed that emissions from the tube caused a nearby screen to fluoresce. After further experiments he then hypothesized that the tube was emitting a new kind of ray, invisible to the eye, which could penetrate solid objects. On 28th December 1895 Roentgen delivered a paper “On a new kind of Rays” to the secretary of the Wurzburg Medical Society. This paper was subsequently published in the journal *Nature* on 23rd January 1896. The discovery was reported in the *British Medical Journal* on the 18th January 1896. Two weeks later on the 31st January 1896, the discovery was reported in the *Brisbane Courier*.

The apparatus required to produce the so-called x-rays was relatively simple. There were three components. Firstly, a power source which at that time consisted of an early electric primary cell known as a Groves Cell. Three of these cells are then connected to an Induction Coil. This is a device, which converts the low-pressure electric energy into very high-pressure electric energy in the form of a pulsating current. The third component is a glass vacuum tube. Through the walls of the tube are 2 sealed electrodes. X-rays are generated when a beam of high energy electrons emanating from the Cathode hits a metal target (the Anode). The image of the object of interest could then be captured either on photographic paper, or on a fluorescent screen.



The first documented instance of a successful radiograph in Australia was published in *THE ARGUS* on 4th March 1896 and referred to the work of Thomas Ranken Lyle a physicist and Professor of Natural Philosophy in the University of Melbourne. Although Lyle; by way of his profession had ready access to all three components listed above; he was also a skilled glassblower; and was able to make his own glass vacuum tube! The report detailed the successful procedure carried out on the previous day, which resulted in the image of the left foot of his colleague Orme Masson, Professor of Chemistry at the University of Melbourne.

Experiments with X-rays were first carried out in Brisbane on 16th July 1896 by Mr J.W. Sutton in his laboratory at 29 Eagle Street.

The laboratory was directly across the river from Mr Sutton's foundry at Kangaroo Point.



*One of three batteries; the vacuum tube and sling, c. 1896.
Collection of the Marks-Hirschfeld Museum of Medical History.*

“A new kind of Rays”, cont’d.

Mr Sutton was well known in Brisbane as an ardent experimenter in science and a clever amateur photographer. The experiments were made possible by Mr Sutton’s acquisition of a coveted Crookes vacuum tube. They were carried out in the presence of Drs Love, Lyons, Rendle, Taylor and Wheeler as well as Mr Campbell, president of the Brisbane Photographers’ Society. On this occasion the images of various objects were displayed on a fluorescent screen.

There was a subsequent presentation to the Royal Society of Queensland on 8th August which was also attended by two surgeons; Dr Wilton Love and Dr David Hardie who were so impressed that they subsequently became the first doctors to use X-rays for clinical purposes in Queensland.



The earliest human x-ray image known to have been taken in Queensland. The accompanying photograph is thought to capture the x-ray being made.

On the 11th June 1896 an X-ray apparatus comprising a vacuum tube (125mm x 75mm); an induction coil; and 3 batteries; which was purpose built by Brady and Martin Ltd, Manufacturing Chemists and Surgical Instrument makers of Newcastle-upon Tyne; was forwarded to Brisbane by Burgoyne & Burbridges Manufacturing Chemists and Photographic Exporters of London. This was accompanied by a typed set of instructions, which unfortunately did not include the address of the consignee. The vacuum tube is mounted upon a wooden frame measuring 200 x 230 x 140mm. Below the tube is mounted an adjustable canvas sling which can accommodate an open hand. Below the sling is a sliding tray for a photographic plate.

This is not the apparatus that Mr Sutton utilised in his initial demonstration as the vacuum tube is not either a conventional Crookes or alternately a Hittorf Tube.

It seems likely that the apparatus in question was consigned from London to either Dr Wilton Love or to Dr David Hardie, as these two gentlemen would have both been acutely aware of Roentgen's exciting discovery and eager to acquire an X-ray apparatus.

The report of the Royal Society meeting on 8th August describes that again on that occasion a fluorescent screen was utilised which facilitated the display of the objects examined to the audience. It is noted that the *"observers were able to see at once the bones of the hand, coins in a book etc."*

This first array of X-ray apparatus together with the sheet of instructions eventually came into the hands of Mr Fred L'Estrange. He was a senior executive in the Southern Electric Light Company and subsequently gave the apparatus to the collection of historical artefacts at the UQ Medical School; now the Marks-Hirschfeld Museum.

The Museum also is in possession of a facsimile of the earliest human X-ray image known to have been taken in Queensland being that of a hand. The museum is also holding a copy of what I believe to be a photographic print of that radiograph being acquired. It depicts a well-dressed man seated with his left hand

on the canvas sling in the wooden frame. The equipment in the photographic print matches perfectly with that which is described above. The only exceptions being firstly; that the three batteries do not match; and secondly that the image of the hand obtained according to present convention appears to be that of a right hand. Perhaps the image obtained at that time was inverted! The operator is also well dressed. We know that it is not Dr Love, as the prints that we have of him on file show him in profile and do not correspond. Although the print is not annotated, I believe that this image depicts Dr Hardie examining the hand of one of his colleagues.

Museums are institutions dedicated to preserving and interpreting the primary tangible evidence of humankind and the environment. They serve to house a variety of artefacts for the purpose of further research and display. There is often a heightened level of interest, if a particular object is the first of its kind. Whilst the Roentgen Memorial Site in Wurzburg exhibits an experimental set-up of cathodic rays beside the apparatus of discovery, together with original the X-ray of Frau Roentgen's hand; and the Medical History Museum at the University of Melbourne holds the original image of Professor Olmstead's left foot; I believe that we are indeed fortunate that the Marks-Hirschfeld Museum has the trifecta; viz the first x-ray image exposed in Queensland; the first purpose built X-ray apparatus which made it possible; and a photographic print recording the examination that took place at that time.



RADIX CALUMBAE

RADIX CALUMBAE

CRETA ALBA

CORT. QUERCUS

MINDA CRISTINA

RADIX CALUMBAE

SPEICANTHUS

EPILEPTICUM

RADIX CALUMBAE

RADIX CALUMBAE

RADIX CALUMBAE

RADIX CALUMBAE

Get involved

Support us

Our generous philanthropic supporters are vital to our work and play an important role in preserving Queensland's medical history.

- Your gift to the Marks-Hirschfeld Museum could support:
- Conservation of our rare book collection
- Protective storage for our laboratory and pharmacological glassware
- Archival sleeves for our collection of Trepine magazines
- Digitisation of our photographic and vinyl record collections
- Refurbishment of historic exhibition cases
- Publication of an exhibition catalogue
- Purchase of an audio-visual display to play significant films from the collection
- And that's just for starters!

You can support the Museum by:



donating online



contacting us on 07 3365 5423



or emailing med.advancement@uq.edu.au

Become a volunteer

If you'd like to join the volunteer team, please contact us at medmuseum@uq.edu.au.

Join the conversation

Contribute to the Museum newsletter

The Marks-Hirschfeld Museum of Medical History newsletter is issued four times per year. We are always on the lookout for interesting materials that explore the rich tapestry of medical history. If you would like to contribute a story or have a topic that you would like to see included in future editions, please send an email to medmuseum@uq.edu.au.

Our next newsletter will be distributed in March 2023. If you are interested in submitting an article, please send your story and photographs by no later than Friday 17 February 2023.

Share your feedback

Your experiences and suggestions will help shape future editions of the newsletter and ensure we continue to create content that you can enjoy. Completing the survey will also help us get to know you personally.



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