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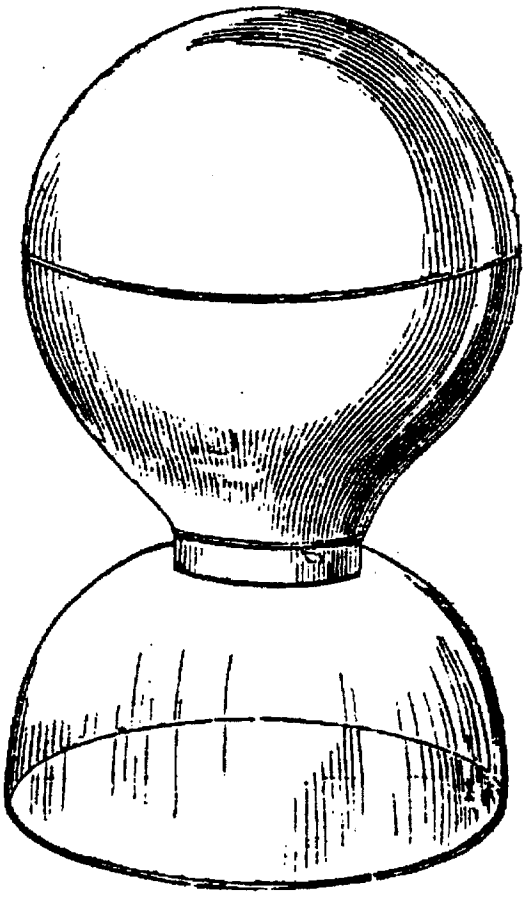
Historical Medical Equipment Society



Bulletin
No 4

July
1998

Historical Medical Equipment Society

EDITORIAL

Bulletin No. 4 is appearing despite serious doubts about its viability. Appeals for contributions have remained largely unanswered, the articles by David Nunn and Neil Handley being sparkling exceptions. The suggestion that speakers at meetings should give copies of their talks for publication in the Bulletin is an excellent idea, meaning that those who are unable to come to meetings can share these interesting contributions as well as providing material for the Bulletin. This will not mean however, that this should become a full substitute for either attendance at meetings or the production of further Bulletins, both need active support from members. So, once again will anybody who has something of interest to say, even a short note or a query about some piece of equipment, please send it in by the end of November. One of the papers given at the Meeting held at Guy's Hospital on 25th April 1998, "The History of the Resectoscope" appears here. The original contains a very long bibliography which has been left out for space reasons, however, if anyone has a particular interest in other references to the subject, please write to me and I will send a copy. Another paper by Patricia Reynolds on diabetic equipment will appear in the next issue.

Because the papers given are to appear in the Bulletin it was decided that there is no need for a full Meeting Report but a summary of the Minutes reveals that membership figures are satisfactory at 68 fully paid and the financial situation is healthy, most expenditure being on stationery, postage and secretarial work. The Meetings Secretary is unable to continue so if anyone is interested in helping out please let John Kirkup know. We also need a Vice-President to support John.

Suggested dates for the next Meeting are either October 17 or 24 with suggested locations at various places in London or the Thackray Museum in Leeds. When a final decision has been made details will be circulated to members and, again, it is hoped that as many as possible will attend. If the Society is to continue it needs active support from its members.

The Use of Historic Object Collections.

Neil Handley, Museum Researcher, University of Manchester.

Why do we collect historic medical equipment? It's a question worth pondering because there are numerous university, hospital and medical museum collections across Great Britain and the expense of storing, maintaining and, occasionally, displaying these objects is a burden which curators are being asked to justify. Collecting as an end in itself may not be enough. Consequently the Wellcome Unit for the History of Medicine at Manchester University hosted a conference recently on "The Use of Historic Object Collections in Medical History and Medical Education".

Thirty seven people, curators, historians and medical curriculum advisers, met to hear a range of short papers answering three main questions.

HOW? How should we study medical objects ... and develop the skills to do so?

WHAT? What collections exist for study? What research has already been carried out on them? What should be the respective roles of curators and academic historians?

WHITHER? Where do we go from here? What should history departments do in the future to introduce objects into teaching programmes? Is

there scope for introducing history *via objects* into medical curricula?

On the Friday evening delegates were welcomed to the Manchester Museum by the Director, Tristram Besterman, who spoke about the Museum's plan to take over the Wellcome Trust's *Science for Life* exhibition. This is to be contextualised by the display of historic medical and dental equipment supplied by two of the University's departmental collections.

The next day, Neil Handley posed a series of introductory questions. By referring to a reconstructed grave display in the National Museum of Bahrain he drew attention to the failings found even in museums when it comes to direct interpretation of objects. He suggested that it was difficult for historians to engage with objects, especially since most literature which considered them could be accused of object fetishism and some such works were marked by antiquarianism and decidedly short on analysis.

The workshop was held against a context of the opening of new medical museums that take a social history approach to the subject. At the same time, some traditional large object collections appear to be under threat. It would be unfortunate if museums were to use only as many objects as required by their displays since a static exhibit is a very crude form of communication.

John Burnett, Curator of Medical History at the National Museums of Scotland, spoke on "How to Study Medical Artefacts". He expressed surprise that for such a materialist society, the British were astonishingly unaware of objects. Most medical collections did not really help raise awareness of the unique quality that objects possess in being three-dimensional. A notable exception is the Wellcome Galleries at the Science Museum where three-sided cases allow visitors to view objects rather than "pictures behind glass".

Delegates were invited to inspect and attempt to identify a wooden object associated with the manufacture of ear trumpets. The idea was to show how 'difficult' items can be considered by looking at shape, form, markings, and signs of wear. John recounted a long list of potential questions to 'ask' of objects including: What is it? Where has it been? What does it relate to? Individual objects should be considered as representing "packets of questions".

Neil Handley then joined John Burnett in running "The Object Game" whereby objects from the Manchester University collections were presented and delegates asked to consider the questions they might put to the objects in order to gain most from studying them. The objects included a pair of Barnes' Obstetric Forceps with ebony handles, fenestrated blades and finger ring, a set of bone dentures with attached springs and porcelain false teeth fixed with rivets, and a formaldehyde fumigator. The objects all raised very different themes and the forceps in particular aroused considerable discussion. Interesting themes to emerge included the experience of women in forceps deliveries, the notion of the perfect body and the conflict between form and function in the creation of artificial body parts, the techniques of fumigation and the benefits of being able to handle and inspect objects.

Andy Elkerton gave a review of the Mary Rose Project, homing in on the part of the ship which contained a barber-surgeon's chest (as well as a separate area of accommodation which may have been the Tudor surgeon's personal quarters). Andy distributed line drawings and showed slides of objects which the Trust cannot identify with certainty. The audience showed discomfort as he wielded a replica urethral syringe.

Ghislaine Lawrence, Curator of Clinical Medicine at The Science Museum, spoke on 'Object-based Research - A New Model". She admitted that even historians based in museums have used objects merely to illustrate publications derived mainly from textual sources. There is a need for a model of study and there are two that already exist and are actually very similar, namely the Archaeological and Anthropological Model (The AA Model) and the Material Culturist Model which grew out of Folk-Life studies.

A discussion of these models prompted Ghislaine to distinguish between the definite inferences and the possible inferences that one can make from objects; she confessed that many definite inferences were not that interesting. In her opinion, however, the AA method was inadequate for the study of mass-produced non-

art material (such as most medical instruments constitute). There is the need for a new model that recognises that objects may modify the views one derives from textual sources but their prime usefulness is in raising questions. The historian can then return to the texts to find out why the objects are as they are.

Bill Jackson referred to his 1996 Master's thesis on the history of the stomach pump, mentioning several difficulties in framing an object-based thesis in such a way as to satisfy historians and in gaining the necessary access to the collections he wished to study. It emerged that there are sometimes instances where museum listings are inadequate, even inaccurate, and that certain opinions can only be justified through an understanding brought about by physical inspection of actual objects.

Objects have been used with some success in university teaching. Ruth Neave, Curator of Collections at the University of Dundee, told how the honorary curator of their Medical Collection, Laura Adam, has instigated an undergraduate special study module for medics on "Perspectives on Medical Advances". This two week module includes three sessions that involve objects. A typical topic was 'Changes in Stethoscope Design'. Professor Bryan Hibbard from The Royal College of Obstetricians bemoaned the fact that undergraduates tend to have to have objects "drip fed" to them, via lectures, if they are to consider them at all. Postgraduates, in his experience, have tended to be more positive and voluntary modules as well as courses for midwives at the College have proved popular. Helen Fryers informed the meeting that the Thackray Medical Museum now offers teaching modules to 3rd year medics at the University of Leeds and is trying to build links with Sheffield University.

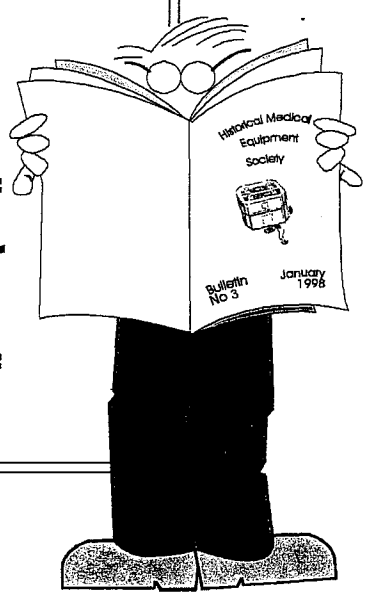
Stella Mason provided an introduction to the collections of the Royal College of Surgeons and pointed out that collections have been at risk since at least the eighteenth century! The College now employs some lecturers who are specialists in education rather than surgery but this has not necessarily meant an increase in the opportunities for object-based teaching. There is much to be said for artefacts, however. For instance they complement Computer Aided Learning packages and are suitable for self-directed study. Many could not easily be collected again.

The following conclusions arose out of the event and are worth pondering by all readers.

- Objects may be viewed as "packets of questions" and "means of entry" to the subject of medical history.
- The "Use of Objects" is, at least, now being considered as an issue, in a similar way to the debate over the use of oral history. It is notable, however, that no one has ever considered the "Use of texts" to be an issue to historians.
- There should be more opportunities for medical curators to meet with each other and for curators and private collectors to meet with medical historians.
- Curators should be aware that historians with an interest in using objects look to them to give a lead. Curators should therefore use every opportunity to emphasise the object-centred nature of their work and researches. It is also to be hoped that private collectors will come to view their collections as representing something more than financial value, as important three-dimensional archives of the medical past.

REMEMBER!

Deadline for copy is now the end of November and the end of May



The Blizard Instruments.

By: David Nunn, Assistant Curator, London Hospital Medical College.

Sir William Blizard was the founder of the London Hospital Medical College at Whitechapel. He regarded its opening on 27th October 1785 as the greatest event of his life and had worked long and hard to achieve the development of the very first formal medical school. As an operator Blizard ranked with Abernethy, Astley Cooper and other great names who helped make England famous as a centre of excellence in the early nineteenth century. One of his contributions was the ligation of the thyroid arteries in a goitre.

Blizard's amputation set as used for military purposes

The instruments which we have on display are samples from Blizard's long and illustrious career. The Surgeon's Battle Set and case of amputation instruments are both from the period that he spent with the Honourable Artillery Company. Wounds from musket fire (if survivable) would invariably involve massive fractures due to the weight of the large calibre shot. In order to prevent the patient suffering with haemorrhage, thrombosis or gangrene the best course was to remove the damaged limb as quickly as possible. It goes without saying that direct hits to the head or thorax would usually prove fatal.

In order to facilitate a firm grip on the amputation saw Blizard had the handles custom-made to fit his hand. With the patient secured (and often gagged to prevent screaming) Blizard was able to remove a leg in a breathtaking 15 seconds. Occasionally, his dresser would incur damage to his own fingers while holding the leg either side of the saw-cut due to Blizard's haste and vigorous sawing action. Blizard therefore had a series of chains and hooks linked together which could be used in conjunction with a wooden block to do the job of his dresser's hands.

Also on display in the Blizard case are two cupping sets (c.1820) and a set of scarifying blades that pre-date them.

The set of trephining instruments are in excellent condition and like the other surgical instruments in his collection would have been used without anaesthetic.

One of the best exhibits is a medicine chest made by Bell's pharmacy of London c. 1800. Of all the rather quaint potions it contains, only quinine is thought to have been fully effective. Most of the bottles still contain examples of such substances as tincture of rhubarb, Dover's powder and essence of peppermint.

There is a selection of cauterising irons of various shapes and sizes plus a dissecting case which was used by Dr. Clippingdale, one of Blizard's dressers. A garot tourniquet for the leg is probably the most modern item in the case and dates from the mid-19th century. It consists of two red pads linked by a ratchet device which enables the user to put pressure on the femoral artery.

The reason that these instruments scan fifty years is that William Blizard's own career covered sixty years. He was still performing amputations at the age of 84 and only retired from the active staff at 90. Perhaps he went on for rather too long but his contribution to the London and the Royal College of Surgeons, of which he was President, are inestimable.

The history of the Resectoscope.

By: John Blandy

The idea of cutting the bladder neck goes back a long way. Ambroise Paré is said to have used a catheter armed with a sharp cup at its tip for removing 'carnosities' at the bladder neck, and a similar instrument is illustrated by Francisco Diaz, chief medical officer to Philip of Spain at the time of the Armada, but neither of their instruments was adopted widely.

The treatment of urinary obstruction caused by enlargement of the prostate remained intermittent catheterisation right up until the end of the 19th Century, but repeated catheterisation carried considerable risks; Kidd estimated that up to 8% of men treated by 'catheter schooling' would be dead of uraemia or infection within a month.

There were also many occasions when it was difficult if not impossible to pass a catheter, and various pointed catheters were devised which could be forced through the middle lobe or the neck of the bladder, a painful and dangerous operation. John Hunter made a profound study of the pathology of prostatic obstruction and his specimens are still preserved in his Museum in the Royal College of Surgeons clearly showing evidence of very severe obstruction without much enlargement of the prostate.

Hunter's friend and pupil George James Guthrie, who had served under Wellington throughout the Peninsular War and returned to join him for the battle of Waterloo, was very well aware that some of the most severe cases of prostatic outflow obstruction were caused by quite small prostates.

Guthrie was familiar with the work of Sir William Blizard, who in about 1806 had used a double gorget passed through the perineal urethra to incise the prostate 'in several cases of disease of the prostate gland', and he knew that it was the neck of the bladder rather than the prostate itself which was often responsible for urinary obstruction. Guthrie devised a sound with a concealed knife activated on a spring to cut through the 'bar, dam or stricture'.

Concealed knives similar to that of Guthrie were later devised by Civiale and Mercier who made so many modifications that it is doubtful whether any of them were reliable in practice. Mercier claimed to have done 300 successful operations, but not everyone believed him.

One of the inherent drawbacks of all these concealed knives was that the operator could neither see what he was cutting nor stop the bleeding afterwards. Instead of cutting, Bottini devised an instrument like a lithotrite whose male blade was heated by direct (Galvanic) current to burn a channel through the neck of the bladder. This avoided any bleeding but it was still blind and it was all too easy to burn the bladder. Bottini reported 57 cases with 2 deaths and 12 failures.

Others took up Bottini's idea, using different heating and cooling systems: in London Hurry Fenwick at St Peter's Hospital, in New York Chetwood and Wishard and in Berlin Freudenberg, all published modifications of the Bottini instrument. Their contemporaries were unimpressed: 'No permanent good ever came of it' wrote Reginald Harrison of St Peter's Hospital.

While these early attempts to cut the bladder neck were being developed, enucleative prostatectomy by the suprapubic or perineal route was being introduced. Probably the first perineal prostatectomy was that recorded at St Batholomew's Hospital in 1884 and independently rediscovered by Goodfellow in Tombstone, Arizona in the following year.

The suprapubic transvesical approach was discovered (by accident) by McGill in Leeds in 1887 and taken up by Mansell-Moullin at the London Hospital in 1892, Fuller in New York in 1895 and Freyer at St Peter's in 1900 whose name, thanks to his enthusiasm, was attached to the operation. All these pioneers, however, were concerned that the amount of tissue removed 'is often so small that it seems ridiculous to have to perform suprapubic operation for its removal', and it was this concern which led Hugh Hampton Young, one of the pioneers of perineal prostatectomy, to look again at Mercier's knives To start with Young's instrument was a simple cork-borer. 'I called my instrument a prostatic excisor and the operation excision. The internees promptly dubbed the instrument "the punch"'. His first punch was very simple and without a telescope or any means of haemostasis but these deficiencies were quickly remedied.

Soon after the discovery by D'Arsonval that high-frequency alternating current did not excite nerve or muscle, the heating effect at the site of contact was used to cauterise warts on the skin.

The electric cystoscope which had been pioneered by Nitze in Germany and introduced to England by Hurry Fenwick was then slowly coming into use, and in 1910 Beer used the D'Arsonval current, generated by a spark-gap,

to cauterise 'warts' in the bladder. It was not long before the same current was used to cause a Bottini burn at the neck of the bladder, although it took several sessions to produce an adequate channel. However a combination of Young's cold punch with diathermy haemostasis was a brilliant success. By 1930 Caulk was resecting 85% of his cases and reported only one death in 510 operations. The cold punch had arrived, and is still in use today.

Others were using the hot wire to cut through the tissue. A number of 'galvanic écraseurs' had been tried out which used a white hot wire snare to cut through the projecting parts of the middle lobe, but in practice it is difficult to cut through the prostate with a hot wire: it drags, sticks and carbonises.

To cut tissue under water it needed Wappler's much more powerful radio-frequency 'endotherm' whose high frequency current was generated by a valve. In 1926 Maximilian Stem discovered that Wappler's current would create 'a luminous ring or halo which causes eruption of cells in its path as the loop is advanced, leaving no carbonised tissue either on the loop or the cut surface of the gutter it leaves in the tissues'. However, the cutting current did not stop the bleeding and for many years urologists used two separate machines: Wappler's valve 'endotherm' for cutting, and the spark-gap diathermy for haemostasis until eventually manufacturers supplied both in one box. Today both types of current are generated by solid-state circuits.

McCarthy soon added his 'foroblique' telescope to Stem's instrument, and so was born the Stern-McCarthy resectoscope which was widely adopted. This sturdy and reliable instrument, with which the author learned resection, became the prototype of all the present-day instruments.

At first the resectoscope or the combination of cold punch and diathermy haemostasis were used only to cut a groove through the middle lobe or bladder neck but it was not long before the experts, at least in the Middle West, were using these instruments to remove quite large amounts of prostatic tissue. In 1936 Thomson and Buchtel of the Mayo Clinic reported 200 cases from whom they had removed more than 20 grams of tissue and five years later in Minneapolis Creevy did not consider a prostate 'large' unless he had removed more than 30 grams and surgeons were setting out to perform an operation that was just as complete as that performed by the surgeon's finger at transvesical prostatectomy.

The cold punch was taken up with enthusiasm by Wardill in Newcastle and Lane in Dublin who had been to the Mayo clinic to see for themselves. In London hot-wire resection was adopted by Kenneth Walker at St Paul's and Canny Ryall and Terence Millin at All Saints.

Millin told the author "My personal experiences with TUR commenced in 1930 and by 1949 1 had carried out some 2000 TURS. By 1940 my percentage was 80% approximately but with the introduction of safer open prostatectomy the percentage declined to less than 10% in the years before I retired." After this, for a time, transurethral resection almost ceased in the UK. During the 2nd World War the more powerful diathermy machines had been requisitioned to block enemy radar and after the war, the returning surgeons learnt that Millin himself, protagonist of transurethral resection, had given it up in favour of his retropubic operation which was easy to learn and needed almost no special equipment; the fact that it was not nearly as safe as transurethral resection was quietly ignored.

In 1960 the young surgeon who wished to learn transurethral resection had to go to North America where transurethral resection of a 50 gram prostate was routine. The bleeding was stopped completely, and patients went home within a few days. Back in England, however, there was still a shortage of effective diathermy equipment, the telescopes were dim, the lighting unreliable and the method very difficult to learn, but then came the three inventions of the late Harold Hopkins, which changed everything. The first was the rod-lens telescope, which owed its development to the imagination and enterprise of Karl Storz. The second was the flexible glass fibre light cable, which provided limitless, unfailing illumination. The third was the co-ordinated flexible glass fibreoptic cable that made it possible for a pupil to watch the operation in progress.

Other improvements soon followed, for example Iglesias introduced a continuous irrigating system which kept the field clear [29]. New solid

state diathermy systems offered purposely designed currents minimised bleeding and still provided clean cutting. Finally there came tiny television cameras, which could be attached to the resectoscope to allow pupils to see every step of the operation and spare the surgeon from repeatedly craning his neck and so avoid cervical spondylosis, the occupational disease of my generation of urologists.

Today it is possible to vaporise tissue with a laser beam or the diathermy current without any bleeding so that the operation can be done without the need for a catheter or admission to hospital, and every year sees new modifications and improvements in the resectoscope.

SOCIETIES, MUSEUMS AND MEETINGS

The Thackray Medical Museum

Thackray Medical Museum is the inspiration of Paul Thackray, the grandson of Charles Frederick Thackray who founded the internationally renowned medical supply company, Chas F Thackray Ltd.

Charles Frederick Thackray and Henry Scurrah Wainwright started their business in 1902, developing the business steadily and expanding activities into instrument sterilisation, supplying sterile dressings and eventually manufacturing instruments.

In the 1960s they worked with the leading surgeon, John Charnley (later knighted) and developed the first hip replacement. By 1968 the company was making 60,000 joint replacements a year and became world famous in orthopaedic supplies. In 1990 the pressure of increasing investments needed for high technology development led to the company being sold.

Paul Thackray, as a director and shareholder of the company, had already spent five years in building up the historical collection of Thackray instruments from around the world. With the sale of the family business, he decided to develop this collection and the plans for the Thackray Medical Museum were launched. The existing collection currently has 30,000 objects showing how medicine through the ages has been as much about living conditions and knowledge of health and hygiene, as it has been about new technology and drugs.

You can walk down a street in the 1840s and see how the open sewers, street butchers and filthy kitchens kept disease rife. In the street, a family discusses what will happen to their little girl - her life is hanging in the balance because there are no anaesthetics, antiseptics or antibiotics.

You can choose an illness and then pick a treatment and guess if you will survive. Do you know if swallowing a whole roast mouse will cure your whooping cough?

The famous Thackray Medical Instrument Company is the inspiration behind the museum. There are examples of their hip replacements and instruments, as well as thousands of examples showing how medicine has developed through technology; leech tubes, the first sterile dressings, artificial drugs, keyhole surgery and laser treatments.

Other treats in store include a Victorian operating theatre; a discovery gallery about the body and keeping it healthy; and a collection of 1000 pharmaceutical bottles from Egyptian times to modern days.

For further information contact:
Catriona Finlayson,
Thackray Medical Museum.
Telephone: 0113 244 43 43

Established as an independent charity the Thackray Medical Museum has received full registration as a museum by the Museums and Galleries Commission. The Thackray Medical Museum Company Limited is a Charitable Company limited by guarantee.

Charity No. 1016169. Registered in England No. 2772412. The Medical Museum Trading Company Limited is a wholly owned subsidiary. Registered in England No. 250425

Thackray Medical Museum

Press Release - Wednesday 18 February 1998

Medical Instruments, Equipment and their Manufacture.

Thackray Medical Museum, Leeds is hosting the 9th Congress of the European Association of Museums of the History of Medical Sciences from Saturday 22nd August - Tuesday 25th August 1998.

The main theme of the congress is medical instruments and equipment and their manufacture. Delegates have a unique opportunity to meet and network with other professionals from museums with medical collections throughout the world.

A lively programme has been arranged including visits to medical history collections in York and Sheffield and opportunities to explore the museum's galleries, stores and research collections.

The Association aims to provide more contacts between institutions holding medical objects of historic significance. It links those responsible for such collections, through meetings, a bulletin, and by a general register of events and other information.

For further information about the congress and the association please contact:
Helen Fryers, Curator,
Thackray Medical Museum,
Beckett Street, Leeds, LS9 7LN
Tel: 0113 244 43 43 or Fax 0113 247 0219

The Old Operating Theatre, Museum and Herb Garret

Events & Lecture programme 1998

Sunday 2nd August, 2.30pm. In Fear of the Knife - Surgery Before Anaesthesia.

"A patient preparing for an operation was like a condemned criminal preparing for execution." Relive the ordeal of Victorian Surgery, when a patient's only relief from agony was the speed of the surgeon's blade.

Sunday 6th September, 2.30pm. The Herbal Surgeon.

The battlefields of history not only provided practical experience for the "hand craft" of surgery, but also introduced an exotica of remedies from herbal simples to stupifactives, encouraging healers to *shut their books and open their eyes to look at the patient.* A lecture uncovering the properties of mandrake, henbane, Peruvian bark and many other forgotten medicines.

Sunday 4th October, 2.30pm. Cheselden - A Wealth of Bladder Stones.

The story of 18th century St. Thomas's premier surgeon, William Cheselden. A pioneer of anatomy who gained fame and fortune for the speed with which he removed bladder stones, without recourse to anaesthesia. A lecture in Britain's oldest surviving operating theatre. See for yourself the instruments which were used to Cut for the Stone!

Sunday 18th October, 2.30pm. Keats and the Poetry of Herbs.

As an Apothecary's assistant and student of surgery at Guy's Hospital, Keats' infused his poetry with a knowledge of medical botany – hemlock, heartsease, henbane and poppies - all to be found in the Herb Garret. A lecture reclaiming Keats for the herbal tradition.

Sunday 1st November, 2.30pm. The Surgeon, the Cadaver, and the Resurrectionist.

A lecture on the bodysnatchers who worked hand-in-glove with renowned surgeons such as Sir Astley Cooper, procuring corpses for medical dissection, until a strike by the Borough Gang led eventually to the dreaded Anatomy Act.

Sunday 6th December, 2.30pm. Shakespeare and the Medicines of the Apothecaries.

Many of the remedies of the old English herbals have been preserved in the works of Shakespeare, whose son-in-law, John Hall, was a physician and author of "Select Observations

on English Bodies." A talk on the exotic therapies – animal, mineral, and herbal - of the Elizabethan era, when "poison hath residence and medicine power."

The Old Operating Theatre, Museum and Herb Garret.

9a, St. Thomas's Street, London SE1 9RY.
Tel: 0171 955 4791

Open 10am - 4pm every day. Admission: Adults £2.90, Concessions £2.00,
Children £1.50, Family £7.25

Nearest Underground Station is London Bridge.

Waiting for the NHS

Nineteen ninety-eight marks the fiftieth anniversary of the National Health Service (NHS 50). Throughout the year a variety of events have been planned including our exhibition from the collections of the London Museums of Health and Medicine (LMoHM). Waiting for the NHS depicts the pre-1948 situation looking specifically at how people obtained adequate medical care prior to the establishment of the health service. The show will open on May 20, 1998, at Middlesex Hospital, London. Following this the exhibition will tour for several months.

Waiting for the NHS is an attractive, flexible exhibition, which will be available to venues in two formats. The first will consist of eight 20" x 30" panels and two travelling showcases that will house artefacts from the LMoHM collections. This version of the exhibition will be shown in museums and other secure venues. The second format will not include the travelling showcases, allowing for a wide dissemination in schools, hospitals and libraries, ensuring a wide audience from every age group and background. The exhibition contrasts other events that will focus on the NHS as it exists today. By highlighting the prehistory of the health service, we will provide valuable insight into what people did while they were Waiting for the NHS.

For further information please contact:
Kevin Flude (Bookings) Tel: 0958 322011
or
Caroline Reed Tel: 0171 735 9141 (ext. 354)

CLASSIFIED ADVERTISEMENTS

TRANSLATIONS

Belinda Heathcote can offer translations from German, French, Swedish, Norwegian, Danish, and Spanish and arrange for such from Russian, italian and Portuguese.
Tel: 0181 688 7636 or Fax: 0181 681 8202