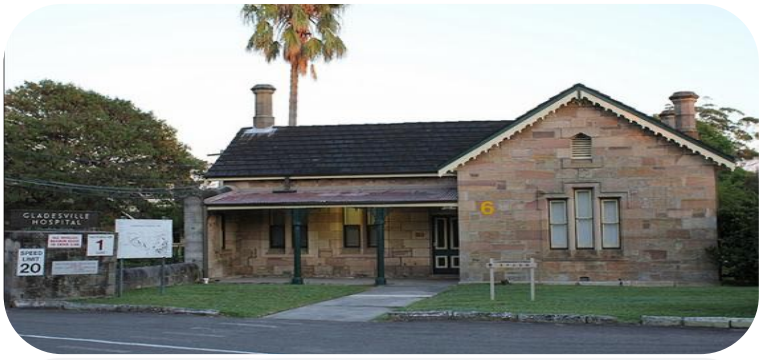
SPASM MUSE

Newsletter August 2020

Spasm HealthCare Museum Building 6 Victoria Rd Gladesville
No 1 gate house at the Crown Street bus stop on Victoria Road Gladesville



Our museum remains closed to the public as we organise the requirements for visitors and our volunteer staff members. Individual members visit the site regularly to ensure the cleanliness and maintenance of exhibits. We are also keen to set up a "one way flow" for future visitors in building 6 and also to provide a safe working distance for volunteers who catalog the exhibits. Members are welcome to assist with this essential work. Please contact us re your available times.

Our AGM previously scheduled for August is postponed until Monday 28th September when we plan to conduct our AGM via Zoom with a combined Presidents/Secretary/Treasurer/Curator Report previously circulated by email. Questions may be raised prior to meeting. No voting for positions are required this year. If you wish to attend the Zoom please email as below.

CONTINUING LAST MONTHS TOPIC : OPTICAL SCIENCE. Part 2 of 2 **Galileo Galilei** (1564-1642) was born in Pisa Italy, studied Medicine and mathamatics at the University of Pisa. It was he who dropped various items from the Tower of Pisa to disprove Aristotles' claim that the speed of a falling body was in direct ratio to its weight. In 1609 Galileo heard of **Hans Lippershey's** telescope He made a better instrument and demonstrated his telescope from the tower of St Marks in Venice looking at Jupiter to discover its moons and Saturn to see its rings

Whilst **Leeuwenhoek** (1663-1723) developed the first microscopes in the 1670's (see over page) in 1851 **Hermann Ludwig Ferdinand von Helmholtz (1821-1894)** revolutionized the field of ophthalmology with the invention of the ophthalmoscope. This made him world-famous overnight. Helmholtz's interests at that time were increasingly focused on the physiology of the senses. His main publication, titled *Handbuch der Physiologischen Optik* (*Handbook of Physiological Optics* or *Treatise on Physiological Optics*), provided empirical theories on perception of depth, colour vision, perception of motion. It became the fundamental reference work during the second half of the nineteenth century. In the third final volume, published in 1867, Helmholtz described the importance of unconscious inferences for perception.

Leeuwenhock See over the page >>

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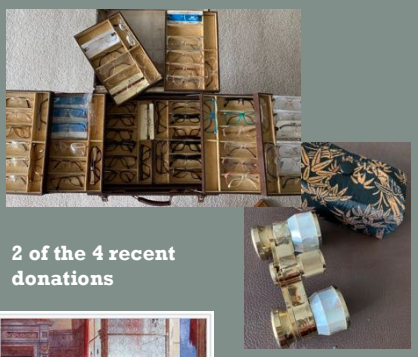

2 of the 4 recent donations

Galileo showed the Doge of Venice how to use the telescope (fresco by Giuseppe Bertini)

Leeuwenhoek see page 2>>

A more modern Ophthalmoscope. donated by Dr. Ken Merten

Fabric Gloves used by Ophthalmic surgeons up to C 1960's

Visiting the HealthCare Museum in real time or online.

Opening hours for the Museum is normally 11 am – 3pm on the 2nd Saturday and 4th Monday of each month - February to November. The museum will be closed to the public until further notice. Members are welcome to attend on specific days by appointment.

Executive Members : President Sandra Solarz
Curator Gary Klopfer
Secretary /Treasurer Ros Berryman
Volunteer Guides: Val Corcoran, Kate Paton, Margaret Warby & Peter Hartigan

Contact SPASM by- Phone 0414 993 138

Email : spasm@netspace.net.au

SPASM web sites at www.spasmmuseum.org.au

https://ehive.com/account 5547

www.discover huntershill.com.au/whats-on

Like us on Facebook: Society for the Preservation of Artefacts of surgery and medicine SPASM

Entry to the Museum takes you to another era:

BUILDING 6

Room 1 takes us to a 1911 Consulting room: *"**The consulting room** of Dr. John Sand Smyth"* who practiced in Warwick Queensland. Items from the Five Dock GP Dr. Menzies collection are also in the large display case.

Room 2. ***The surgical "pick room"*** contains instrument cupboards with a large display of surgical instruments, blood collecting apparatus and interesting items. We will be adding a selection of orthopaedic instruments and prostheses.

The corridor to the library area takes you past a display of hearing trumpets, tracheostomy tubes a display of **early syringes** and other historical equipment.

The haemostasis room *is home to: an impressive* collection of diathermy machines and other methods used to provide haemostasis.

The St Thomas Hospital Operating Theatre Room has recently had a new ceiling installed, and a new display will be set up on this area. The early operating table, as well as early anaesthetic and surgical equipment will soon be on display in this area. We would love to find a sponge rack to add to this room. Does any one know where we might procure one?

The sterilizing area We have added the portable operating table, and world war instruments to this area. The small formaldehyde cupboards and dental equipment are still on display as well as the small sterilizing water baths.

BUILDING 1

The Anaesthetic Room which showcases the changes in anaesthetic apparatus used by surgeons, dentists and anaesthetists over the years displaying improvements in safety and monitoring of the anaesthetised patients over the years.

The Corridor gives a time line of the Tarban Creek Asylum - Gladesville Hospital

The Gladesville Room has ECT machines, straight jackets, & mittens. There are photographs and stories from patients and attendants.

The pharmacy room shows beautiful jars, household remedies and also have some early dispensing records.

Johannes Kepler 1572-1630 Born at Werttenburg, taught mathematics at Graz and published a number of his findings. In 1596, while at Graz, he wrote ***Astronomia Pars Optica***, for which he earned the title of founder of modern optics, he was the first to discover many of the common theories of optics. He was the first to use a pinhole camera to investigate the formation of pictures; the first to explain the process of vision by refraction within the eye; the first to formulate eyeglass designs for nearsightedness and farsightedness; and the first to explain the use of both eyes for depth perception. In his book ***Dioptrice*** (a term coined by Kepler and still used today), he was the first to describe real, virtual, upright and inverted images and the concept of magnification. He was the first to explain the principles of how a telescope works, and the first to discover and describe the properties of total internal reflection.

In 1621 **Willebrord Snell** (1591-1626) Professor of Mathematics and Natural Philosophy at the University of Leyden in Holland discovered the law of refraction, this law makes possible precise computation of modern lenses and optical instruments. He discovered when light falls on the surface of a refracting medium such as glass or water, the sine of the angle of incidence bears a constant ration to the sine of the angle of refraction.

In 1629 England's "**Worshipful Company of Spectacle Makers**" was chartered and still exists today.

Antoni van Leeuwenhoek (1632- 1723) was born at Delft Holland. He was among the first to see living micro-organisms, He related his discovery of animalcules in rain water that were "ten thousand times smaller than animalcules seen by Swammerdam" From 1673 to 1723 he sent 110 communications to the Royal Society of England and 27 to the French Academy reporting various microscopical observations. These letters were translated into many different languages and published making his name and discoveries famous. He built 247 microscopes and designed 419 lenses., with magnifying powers of 50 to 300 times. Most were very small double convex lenses, mounted between two plates made of silver, gold or brass

In 1665, **Robert Hooke** (1635-1703) improved upon earlier microscopes developed by **Anton van Leeuwenhoek** and Zacharias Janssen. Hooks' compound microscope consisted of an objective lens used to focus light on what he was examining, an eyepiece lens, and a field lens that increased the field of view. The light source that Hooke used with the instrument was sometimes sunlight and sometimes an oil lamp that he attached directly to the microscope. By using the device, Hooke was able to show people things that had previously gone unseen. Hooke shared many of his discoveries in a book called ***Micrographia*** that contained detailed drawings of plants and insects, which he called "minute bodies." Though his contributions to the field of experimental science are well documented, Hooke is not as well known as his contemporary colleague, and rival, **Isaac Newton** who wanted to discredit him. It is interesting to note that Isaac Newton's scientific gift emerged during a time when he was self-taught; **studying at home for two years while Trinity College at Cambridge was closed due to an outbreak of plague**.

Benjamin Franklin 1705-1790 was a scientist and a major figure in America. As an inventor, he is known for the lightning rod, bifocal glasses and the Franklin Stove as well as other inventions. As a journalist, Franklin was constantly putting on and taking off his reading glasses. He became frustrated with the repetition of this task, so it is said that "he cut the bottom half of his reading classes and put them in the frames of another pair of spectacles." He had invented the bifocals, which many use today.

.References:

"*Milestones in Optical History*" Bausch & Lomb Optical Co Rochester NY USA 1936

Encyclopedia Britannica https://www.britannica.com/biography/Antonie-van-Leeuwenhoek

"*Molecular Expressions Science Optics & You*" in their section of "*Pioneers in Optical Sciences*." https://micro.magnet.fsu.edu/optics/timeline/people/index.html

Next Month we will consider plants used for medicine through the ages.