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Newsletter Editor:
Donna Mann

EHMHF Expands to Open New Exhibit Space

Thanks to the generosity of Burle Industries and Lancaster General Hospital, EHMHF has moved to a new, larger space at the Burle Business Complex. Still located in Building #2, our new space includes both warehouse space, where we can store and preserve our growing collection, and a 520 square foot museum exhibit space.



This new space will allow us to bring groups to our museum for guided tours as well as allow us to be a valuable educational resource for students and researchers interested in the history of the healing arts. Guided tours, scheduled by appointment, will begin in March, 2014.

Our first series of exhibits showcases 19th medicine and includes a look at 19th century surgery, dentistry, ophthalmology, microscopes, invalid feeders and obstetrics. Our dental display not only includes dental instruments and a dental examination chair but also a working foot powered dental drill. Also on display is our library that includes an extensive collection of 19th century medical books. The



highlight of the new museum is a pharmacy unit that came from a pharmacy in New York City from 1851. The shelving unit has been filled with a large variety of 19th century medicines tracing the progression of the pharmacy industry from the use of primarily herbal remedies to patent medicines to chemical compounds as well as the common instruments used by the pharmacist.

For more information or to schedule a tour contact Donna Mann, Curator, at 717-419-1456.



From the President

By Nikitas Zervanos, MD

This is the third issue of our newsletter. We are proud of the quality of the articles that have been put together by our very able and gifted writer and editor, Mrs. Donna Mann, who also serves as our archivist/curator. I have been impressed with her stories, which highlight our medical history as well as the special collection items in our growing and vast store.

As pointed out in our first edition a major goal was to establish a medical museum to house and display our artifacts, books, and memorabilia. This is soon to become a reality. We have moved a number of times since our first location in the building adjacent to the Lancaster County Medical Society's office at 137 East Walnut Street, but the collection grew so large that we needed a warehouse to store the items. Lancaster General Hospital provided us space in their warehouse on Marshall Street and then in the fall of 2011, we moved to their new warehouse location in the Burle Industrial Park on New Holland Avenue. In June of this year, the owners of Burle provided us two rooms across the hall from where we were to be able to renovate with the assistance of Lancaster General and Burle, making it possible to convert one of the rooms to a suitable museum where beginning in early 2014 we will be able to invite special groups (high school and college students) to see some of our many artifacts, including a unique pharmacy display.

In the meantime, we continue to showcase a pharmacy exhibit just outside the General Hospital's Convenience Pharmacy with newly designed maps that serve as a backdrop and pinpoint some of our very early pharmacies. The other General Hospital exhibit located in the Lime Street Corridor highlights some of the General's historical milestones, and includes artifacts from our collection. Two other exhibits at the General feature a letter from President James Buchanan to his personal physician, Dr. Henry Carpenter and another letter from George Clymer, a co-signer of the Declaration of Independence to Edward Hand. Additional exhibits include the portraits of Dr. and Mrs. Rohr which flank a Eulogy-Tapestry, adorning the waiting room at the Walter Aument Family Health Center, as well as the

late 18th and early 19th century medical artifacts at the Rock Ford Plantation. We have also been conducting a one day annual exhibit, highlighting some of our artifacts on different themes at the Health Fair at the Willow Valley Retirement Community.

The publications on our website (edwardhandmedicalheritage.org) now include articles on the history of the medical disciplines of ophthalmology by Drs. Paul Ripple and John Bowman; urology by Marvin Daly, MD; radiology by Andrew Koch, MD; and pulmonary medicine by Harshadkumar Patel, MD; in Lancaster County, as well as papers on the "The Lancaster County Cholera Epidemic of 1854 and the Challenge to the Miasma Theory of Disease," by John Osborne, PhD; "The History of LGH, 1893-1993," by Henry Wentz, MD; and of "Chiropractic Medicine in Lancaster County" by Calvin Wenger, DC; as well as Dr. Nicholas Siviglia's story on the History of Contact Lenses. There are many more in the pipeline. Our website also highlights the excellent papers that have been written by our summer college premed interns on the topics of "What Caused the Death of General Edward Hand?" by Alison Mann; "Historical Aspects of Cardiology in Lancaster County" by Nathan Leisenring; and "The Use and Abuse of Calomel in the 18th to the early 20th Century" by Eli Schneck.

We are also delighted to report on the very successful gala event promoting the theme, "A Celebration of the Medical and Allied Health Professions of Lancaster County," held at the Rock Ford Plantation on June 1 of this year to help raise funds for both the Edward Hand Medical Heritage Foundation as well as the Rock Ford Foundation.

Our foundation also takes pride in raising the funds to help kick-start a book-project that will be written by noted author, Frank Allen on the lives and work of Holmes and Caroline Morton and the Clinic for Special Children.

All of the above accomplishments are the result of the hard work and generosity of our eighteen member board. We also would like to take this opportunity to express our gratitude to so many of our Lancaster County citizens for their financial and moral support.

Educating our Community Through our Collection

EHHMF has initiated an effort by Lancaster County medical practitioners to document and preserve the history of the medical specialties and allied health professionals. These stories will be featured on our web site, edwardhandmedicalheritage.org. The first of these includes the histories of ophthalmology, the history of Lancaster General Hospital, the First 100 Years, and the History of Contact Lenses. Other histories include that of radiology, urology, gastroenterology, and mental health services. The following are excerpts from articles that appear on our web site.

Excerpt from:

The Lancaster County Cholera Epidemic of 1854 and the challenge to the Miasma Theory of Disease

By John B. Osborne, PhD

*Originally published in the Pennsylvania Magazine of History
and Biography 133 (2009)*

EARLY ON THE MORNING OF SUNDAY, September 10,

1854, the fellows of the College of Physicians of Philadelphia received an urgent appeal for medical aid from the hastily assembled Sanitary Committee of Columbia, Pennsylvania, seventy-five miles to the west, on the eastern bank of the Susquehanna River. Cholera had broken out in the town, and by Saturday, September 9, it had killed thirty people, including one of the town's six physicians. The desperate townspeople turned naturally to the College of Physicians. Founded in 1777 by a group of prominent medical men in Philadelphia to advance the medical profession and to promote public health, the college had become the most prestigious medical society in the country. Henry Hartshorne, MD, a fellow of the college and noted Quaker humanitarian, responded immediately, leaving for Columbia that day. T. Heber Jackson, MD, of Philadelphia, arrived the same day. The next day, Monday, September 11, the college held a special meeting and resolved that a delegation of five fellows be sent to Columbia, including the eminent physicians Wilson Jewell and Rene La Roche. They arrived in Columbia on September 12, joining other volunteer physicians in aiding the sick and instituting measures intended to curb the further spread of the disease. Believing they knew the etiology of cholera, they came to Columbia to discover its source, not its cause.

Excerpt from: History of Radiology in Lancaster County

By Andrew Koch, MD

I. GENERAL RADIOLOGY: To better appreciate the history of radiology in Lancaster County it is useful to review both the history of radiology itself as well as its major professional organizations.

In November of 1895 Wilhelm Conrad Roentgen, the Chairman of the Physics Department at the University of Wurzburg, Germany, was investigating the external effects from various types of vacuum tube equipment when an electrical current passed through them. He had a number of different types of vacuum tubes, and while using a Lenard tube he noticed a fluorescent effect on a small cardboard screen painted with barium platinocyanide when the current was turned on despite a covering of plain cardboard between the vacuum tube and the painted cardboard. It occurred to him that some invisible ray must have passed through the plain cardboard and caused the fluorescence. He then turned to a Crook's tube which has a much thicker glass wall and confirmed his suspicions that a new type of penetrating ray was being generated by electrical current passing through the Crook's tube. He temporarily labeled them "x-rays" using the mathematical "x" for something unknown. Nearly two weeks after his discovery he took the very first known human x-ray, a picture of his wife's hand.



It showed the soft tissue as a soft gray outline and the bones and metal finger ring in sharp contrast and detail. Incidentally, some scientists recently attempted to duplicate that procedure and determined that the original exposure was about 20 minutes compared to a fraction of a second for a modern x-ray, and the radiation dose was 10 times greater than the modern system. Roentgen's original paper "A New Kind of X-



rays" was published December 28, 1895 (he published a total of three papers on x-rays between 1895-1897). On January 5, 1896, an Austrian newspaper reported Roentgen's discovery of a new type of radiation. The news spread rapidly around the world and the demand for Crook's tubes was overwhelming.

Since the danger of overexposure was not yet known, there were no governmental regulations of x-rays at the time and would not be for many years to come. Thus, anyone who had the money could buy a tube and use it in any way that they pleased. Many x-ray machines were made for frivolous, foolish, and even potentially dangerous reasons. For example, early in the century a department store advertised a "family portrait", promoting a group x-ray of an entire family. Most of these toys died out soon, but some persisted for quite a while.

Curator/Archivist Update

By Donna M. Mann

We have had a very busy summer at the EHMHF with our move to the new space and setting up our new museum exhibits. Preparations are being made to finally have the opportunity to open our doors for guided tours.

Our first series of displays will highlight various medical practices of the 19th century. We plan on rotating the displays twice a year so that there will always be new things to see when visitors tour our museum.

In June we received a wonderful collection of 19th century medical books to add to our growing library. These books came to us through the generosity of Heidi Kistler, MD whose great grandfather used these books while he practiced medicine in the mid-19th century. This collection of medical books will provide researchers with valuable information on the common medical practices of that time.

This past summer we also had the opportunity to again have a summer research intern funded by Lancaster General Hospital. Eli Schneck, a Senior pre-med student at Franklin & Marshall College, conducted extensive research into the medical use of calomel in the 18th and 19th centuries. His paper on calomel, its uses and its toxic side effects will appear on our web site in the near future.

In addition to his research into calomel, Mr. Schneck's assistance with the organization of our new museum space and cataloging new additions to our collection has been instrumental in completing these projects. His hard work has helped to make the our new museum space a success. We are fortunate that he plans to continue to volunteer with EHMHF throughout his senior year at Franklin & Marshall College.



19th Century Invalid Feeders

Cataloging and photographing of our growing collection continues as well as the development of our soon to come "virtual museum". I hope to have several artifacts available for viewing online by mid-2014.

A new display on the progression of wellness programs, to be exhibited at Lancaster General Hospital is in progress and should be completed early in 2014.



*EHMHF
Museum Exhibits*



Letters From Home

Part of the vast collection received from the Raub family includes weekly letters between Henry Raub, MD and his son Richard who was attending Jefferson Medical School in Philadelphia. These letters give us a unique insight into not only what medical school was like in the late 19th century but also college life away from home, before email, texting and a quick one hour car drive.

The following is one of Henry's letters to his son, Richard, written on November 1, 1893. The original letter can be seen to the right.

Dear Son,

We are sorry to hear that you are not well.

If you are not well enough to go and see Dr. Chapman, send your chum after him. That is the way we used to do it. I send you some tablets of antikamnia for your head. Take one occasionally every three or four hours if it does relieve your head. And I would take four or five capsules of quinine every day for several days until you feel better.

You will also find some antivomit tablets which you can take for sick stomach. I have wrote for Uncle Seal to go up and see you.

I mailed you a capsule box with some medicine in to day. Will send you some more in a box.

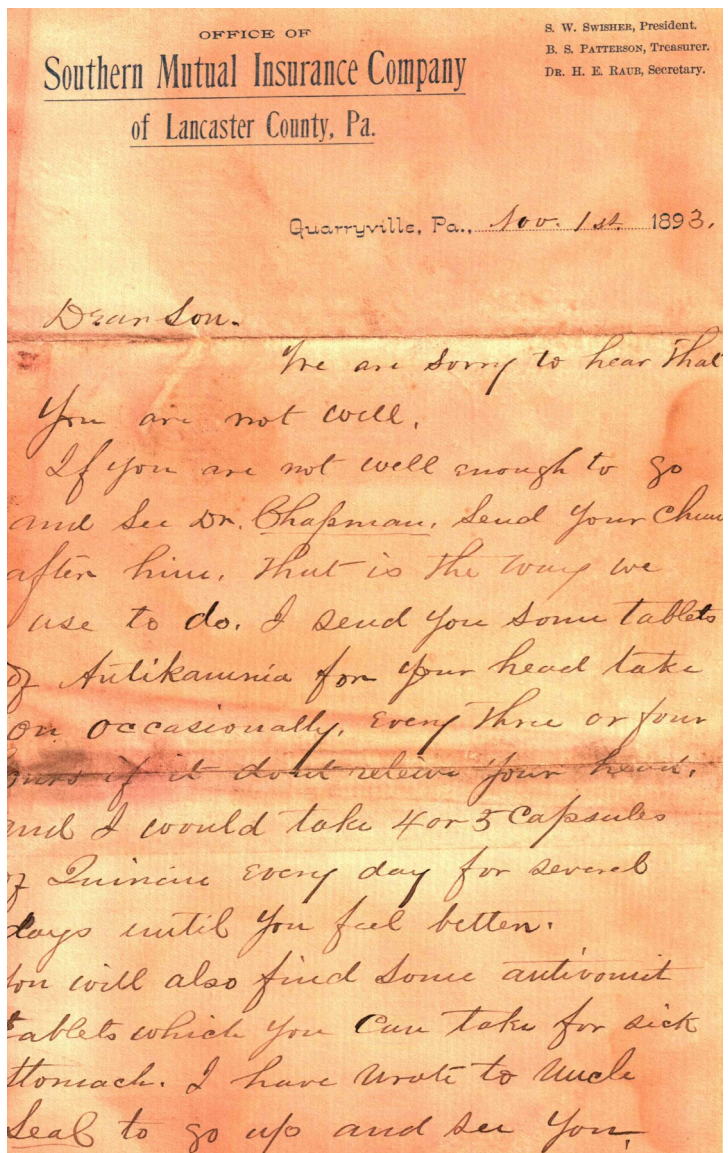
If you can't get out, get your chum to get you what you want in the diet line. Don't starve yourself.

The boys have two foxes, Larry and Ege is about the same. Pheasant was dead, came from Monroe Co. The boys got

four rabbits, two apiece, and John got three, dad none.

Going to send you tripe, cheese, bread, butter, jelly, etc. Dress warm. Keep your feet warm. If bowels are costive I would take some of the anticonstipation tablets to loose them. Then I would take camphor, Opii & Lead tablets one at a time according as you stand in need of

each. But I would take a portion of Quinine for several



days or weeks until you feel better.

Write as soon as you get this.

Your Affectionate Father

H. Raub



Polio and the Iron Lung

One of the largest and most interesting artifacts in the EHMHF collection is the Negative Pressure Ventilator, commonly known as an Iron Lung.

Poliomyelitis, commonly known as polio, is a viral infectious disease which can cause paralysis. The first major U.S. epidemic was recorded in 1894, and many other outbreaks followed well into the 20th century. Summer's warmth provided ideal conditions for the spread of this infectious disease. Polio's crippling effects were most devastating on children.

Polio takes different forms, one of which affects the muscles we use to breathe. Iron lungs are full-body respirators that provide a mechanical means of breathing. In these machines an excess pressure alternates with a reduced pressure. When the pressure surrounding the patient's body is reduced, the chest expands so that air streams into the lungs. Then when the pressure is increased, the air is automatically expelled. Iron lungs were only intended to provide temporary relief until the patient recovered.

Rows of iron lungs filled hospital wards at the height of the polio outbreaks of the 1940s and 1950s, assisting the breathing of children and adults (mostly children) with bulbar polio and bulbospinal polio. A polio patient with paralyzed lungs could spend up to a week inside an iron lung.

Polio vaccination programs have eradicated new

cases of poliomyelitis in the United States. Because of this, and also the development of modern ventilators and widespread use of tracheal intubation and tracheotomy, the iron lung has virtually disappeared from modern medicine. For example, in 1959, there were 1,200 people using tank respirators in the United States, but by 2004 there were only 39.

The iron lung, often referred to in the early days as the "Drinker respirator", was invented by Philip Drinker and Louis Agassiz Shaw, Jr., professors of industrial hygiene at the Harvard School of Public Health. The machine was powered by an electric motor with air pumps from two vacuum cleaners. The air pumps changed the pressure inside a rectangular, airtight metal box, pulling air in and out of the lungs.

The first clinical use of the Drinker respirator on a human was in 1928 at the Boston Children's Hospital. The patient was an eight year old girl who was nearly dead as a result of respiratory failure due to polio. Her dramatic recovery, within less than a minute of being placed in the chamber, helped popularize the new device.

In 1931, John Haven Emerson introduced an improved and less expensive iron lung. The Emerson iron lung had a bed that could slide in and out of the cylinder as needed, and the tank had portal windows which allowed attendants to reach in and adjust limbs, sheets, or hot packs.

The iron lung offered paralytic poliomyelitis patients the assistance they needed to survive. Many people from the generations around the polio epidemics remember images of hospital rooms filled with iron lungs.

Today, most patients with paralysis of the breathing muscles use modern mechanical ventilators that push air into the airway with positive pressure. However, negative pressure ventilation is a truer approximation of normal physiological breathing and results in more normal distribution of air in the lungs. There are patients who today still use the older machines, often in their homes.

As of May 28, 2008, there were approximately 30 patients in the USA still using an iron lung. June Middleton of Melbourne, Australia, who had been entered in the *Guinness Book of Records* as the person who spent the longest time in an iron lung, died aged 83, having spent more than 60 years in her iron lung.



Retiring Board Members / New Board Members

This fall, three members of the EHMHF board are retiring from the board, John Bowman, MD, Henry Wentz, MD, and James Young, MD. We would like to thank these gentlemen for their years of dedication to our organization and their dedication to preserving the history of the healing arts.

We would also like to welcome four new Board Members that will be joining us in January, 2014. We look forward to working with Ann Foley, RN, Matthew Malick, Robert Wertz and William Wheatly, Esq.

Medicine in 1800

At the very beginning of the 19th century, doctors had limited resources for the treatment of diseases. One of the most common treatments was bloodletting, believing the removal of “bad” blood cured illness. Another treatment was the use of a cathartic such as calomel, purging the body of infection and disease. Both of these treatments, rather than curing the patient, often resulted in the patient’s death. Our new museum includes an exhibit on medicine in 1800 containing several examples of medicines and instruments used to treat patients in the very early part of the 19th century.



The 19th Century Pharmacy

The showcase of our new museum space is a 19th century pharmacy shelving unit that came from a pharmacy in New York City. Originally stored in four pieces, the shelving unit has been assembled, cleaned and oiled, occupying the center of the exhibit area. Using our extensive collection of pharmacy bottles and medicines the shelves are stocked with an assortment of medicines ranging from the early to late 19th century. Also included are the tools and equipment use by the 19th century pharmacist; a pharmacy scale, mortar & pestle, pill roller, typewriter, and pill boxes.

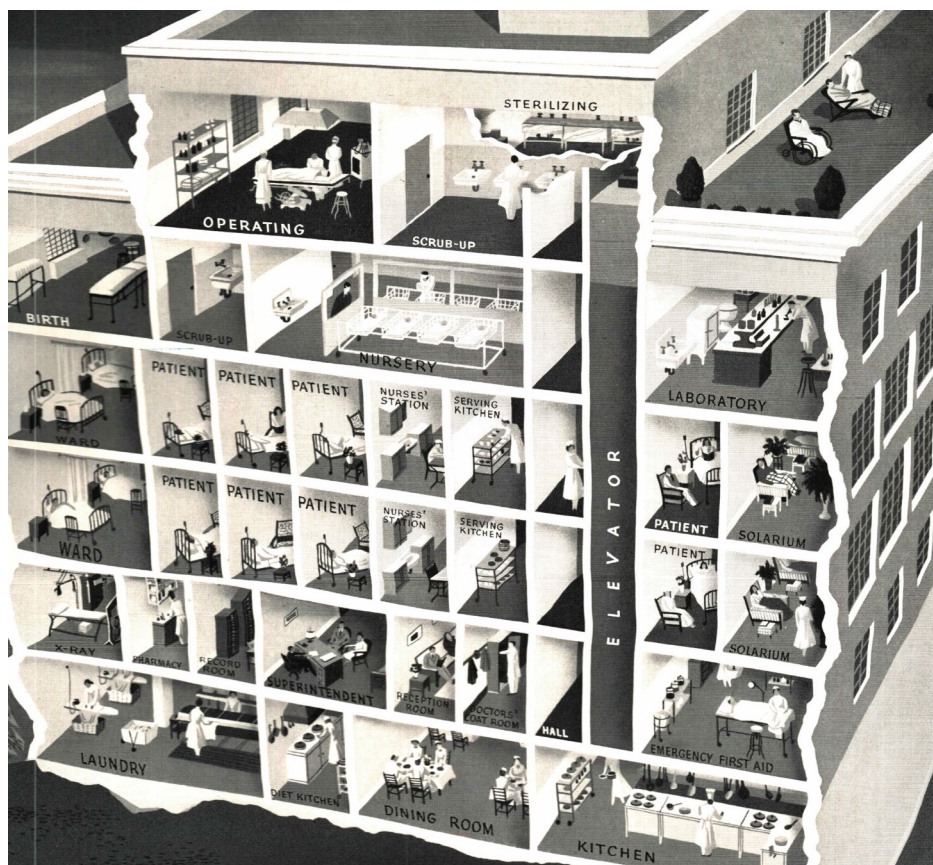


19th century pharmacy



Hospital Promotions

To promote National Hospital day, May 12, 1938, Parke, Davis & Co. produced this magazine advertisement to help ease peoples fears of the hospital.



The WONDERLAND where Alice got well again

The Doctor straightened up from his careful examination. There was concern in his voice. "I think we'd better take Alice to the hospital," he said.

"Oh no," said Alice's mother. "She'll be so unhappy there. She'll miss ___" But she felt a reassuring arm on her shoulder. And heard Alice's father softly say, "The doctor knows best dear."

So Alice went to the hospital. And now, a short while later, she's the old Alice again, a *well* Alice, an Alice as good as new.

Has she been unhappy in the hospital? Not for a minute. She found it a veritable wonderland, full of strange new devices for helping one, and peopled with good white knights and kind ladies-in-

waiting busy making one comfortable and cheerful. better health in your community.

Are her Father and Mother sorry they let her go? Far from it. For they know in their hearts that but for the hospital Alice would not have been well again so quickly, and might not be with them at all.

If people really *knew* hospitals there would be no misgivings when the doctor advises hospital care. That's why the hospitals worked out the very good idea of having a NATIONAL HOSPITAL DAY, a "get-acquainted" day when hospitals everywhere hold open house.

This day (May 12) is an excellent time for you to learn just what a hospital is, and the contribution it makes toward

There you will find, *under one roof*, the equipment and facilities science has evolved for the treatment and cure of illness. There you will meet interns, pharmacists, nurses, laboratory workers, and dietitians, all ably supplementing your own physician's efforts. There you will learn that the modern hospital not only is a wonderland of efficient care; but also a haven of peace, friendliness, and sympathy for the sick.

This advertisement is published by
PARKE, DAVIS & CO., Detroit, Mich.

In the interest of
NATIONAL HOSPITAL DAY, May 12