

Vaccine Promotions

When vaccines first became available to the general public, drug companies as well as doctors had to make people aware of them and convince parents of their crucial, life-saving benefit. Beginning in 1929, Drug companies began ad campaigns to promote their products. This 1937 advertisement for the tetanus vaccine is one of many that were published in national magazines.



The story of Bob—the nail—and the needle

IT WAS RESOLVED that the Little Giants Club should have a new clubhouse. It was further resolved that said clubhouse would be in Bob Wilson's back yard and that Bob would be in charge of building operations. Bob, in pursuit of his duties, stepped ker-plunk on a nail that was sticking out of an old board. The wound seemed slight—it bled hardly at all. So Bob, carefully bandaged, was soon out playing again. But—that nail had been in contact with dirt. And this meant a possibility that the tiny, deadly germs of tetanus (lockjaw) had been left deep in the tissues of the foot. Did Bob pay the horrible penalty that the bacillus tetani exacts? No. Thanks to a tiny needle he did not run that risk. For when Bob's father came home that night he took a look at the injured foot. "A puncture wound from a dirty nail? I don't like that," he said. "We're going to see the doctor right away."

The doctor didn't like the wound, either. He gave Bob an injection of tetanus antitoxin—a little needle prick scarcely more painful than a mosquito bite. But that simple treatment prevents the development of tetanus.

The few minutes spent in the doctor's office saved Bob's parents from hours of worry. And the shack that might have been a tragic reminder is now the proud and cozy headquarters of the Little Giants.

Any wound or injury that forces particles of soil or street dirt into the tissues under the skin, away from the air, carries the threat of tetanus.

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DETROIT, MICHIGAN
*The World's Largest Makers of
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EDWARD HAND
MEDICAL HERITAGE
FOUNDATION

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Preserving the History of the Healing Arts

Spring, 2013

EHHMF

P. O. Box 10302

Lancaster, PA 17605

(717) 940-1770

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Donna Mann

Trepanation

One of the most interesting medical artifacts in the EHHMF collection is a trepanation set. The instruments in this set, which is in our Rock Ford Plantation exhibit, would have been used to drill a hole in the patient's skull to relieve pressure on the brain, usually from a skull fracture.

The kit includes two trephines, the drill used to make the hole in the skull, a scalpel to cut away the outer layer, a small ivory handled brush used to brush away the bone dust created from drilling, a double-bladed head saw used to cut near the brain, an elevator used to lift the bone disk from the skull, and a lenticular used to depress the brain surface away from the trephined hole and smooth away the edges of the hole.

While the trepanation kit in our collection dates to the early 1800s, trepanation is one of the oldest surgical procedures practiced by humans, a form of which is still practiced today. Skulls with holes bored in them have been found by archaeologists from as far back as 3000 BCE.

According to notes on trepanning during the Revolutionary War, the procedure was used to relieve fluid pressure, allow discharge of inflammation from the brain lining or to prevent "future mischief" from a delayed hemorrhage. First, the patient was placed in a low chair or bed with the head firmly supported by assistants. Then a cut was made down to the bone to find the skull fracture. The trephine was placed over the fracture. The trephine was then used to cut a hole in the skull. The surgeon would occasionally stop to brush the bone dust from the teeth of the trephine and the surrounding area. After removal of the bone disk and fluid, the hole was filled with dry lint and then bandaged. All of this was done without anesthesia.

Although the trepanation procedure, while seems rather gruesome, the patient usually survived. Skulls recovered by archaeologists that date as far back as the 1400s, often show healing at the surgical sites indicating that the patient recovered from the surgery.

From the President

By Nikitas Zervanos, MD

Welcome to the second EHMHF Newsletter, Spring, 2013:

This is our second newsletter since the winter of last year. We also plan to produce a third newsletter again this fall. We will highlight the activities of the Edward Hand Medical Heritage Foundation during the past year and bring you up to date on our current activities. We are pleased with the progress we have made to date, and trust you too will be impressed with our growing collection, the publication of scholarly accounts of our medical and allied health professions on our web site (EdwardHandMedicalHeritage.org), and our exhibits.

We are also pleased to announce that Mrs. Donna Mann, who we introduced in our first newsletter, is not only editor of the newsletter, but also is serving as our part time curator/ archivist, assuming overall responsibility for our “Warehouse Museum,” in space generously provided by Lancaster General Health in their warehouse in the Burle Building on New Holland Avenue.

The mission of the Foundation is to preserve our medical heritage. We do this through the collection of artifacts and memorabilia, including historic letters, which we continue to display as exhibits throughout the community. Currently, we have a display of certain archival documents and artifacts documenting Lancaster General’s evolution. This is located on the first floor in the Lime Street corridor behind the elevators. We also helped to organize a mural, which chronicles the history of the family medicine residency program on the third floor of the new Downtown Pavilion, and have on display two precious hand-written letters. These letters, from President James Buchanan (10 August 1861) to his personal physician, Dr. Henry Carpenter, and from George Clymer (October 20, 1792), a co-signer of the Declaration of Independence, to Dr. Edward Hand, are in the medical staff lounge of Lancaster General. In addition we have a work-in-progress pharmacy exhibit just outside Lancaster General Hospital’s Convenience Pharmacy. Another special exhibit, which highlights the late 18th century and early 19th century medical practice of Dr. Edward Hand’s era has been established at the Rock Ford Plantation.

This past year, through the generosity of the Louise Von Hess Research Institute at Lancaster General, Nathan Leisenring, a Lancaster County resident and pre-med student at the U. of PA conducted a historical research project to document and put on display certain historical events and artifacts relating to the history of cardiology in Lancaster County. This was displayed at the Willow Valley Retirement community at their annual health fair

in June and then as a two month exhibit in one of the homes on the Willow Valley campus.

We continue to invite members of the medical and allied professions to write the stories and historical accounts of their specialties or profession. We have managed to publish the first such papers on the History of Ophthalmology by Drs. Paul Ripple and John Bowman as well as the History and Development of Contact Lenses in Lancaster County by Dr. Nick Siviglia. They are displayed on our web site, www.edwardhandmedicalheritage.org. The ophthalmology paper was also published this past spring in the Journal of Lancaster General Health. We anticipate that several more papers will be forthcoming this coming year.

We are very pleased to announce the addition of Alan S. Peterson, MD as a new member of our board to direct our Publications Committee.

We have purchased an updated information system and database as well as the technical and digital equipment to produce 3 dimensional views of many of our artifacts that we hope to be posting on our website soon.

We would like to announce a very special event highlighting the life and times of General Edward Hand at Rock Ford Plantation on Saturday, June 1, 2013. We hope to capture the spirit of the times and will incorporate the theme: “What Killed Edward Hand?” We expect to feature on display the careful EHMHF-funded research project performed by Alison Mann, a pre-med student at Chestnut Hill College. It still remains a bit of a mystery what actually caused his death. Please stay tuned as you will hear more about this gala affair in the early spring.

Finally, a proposal to create the Marietta Vaccine Museum may soon become a reality. We are pleased that the EHMHF will be able to help and we will supply some special artifacts and history to enhance the fruition of this project.

The foundation welcomes your involvement as supporting members and would encourage interested parties to become involved in any of our standing committees, which include: Collections, Resource and Finance, Exhibits and Programs, and Publication. You can contact us by phone, at 717-940-1770, or by emailing me (njzervan@comcast.net).

We hope that our Newsletter will enlighten you about this wonderful community resource and that you will be inclined to support us.



18th century spectacles

Cardiology Exhibit and Research Completed by Summer Intern

This past summer, EHMHF, through the generosity of Lancaster General Hospital, was able to hire a summer intern for researching and creating an exhibit depicting the history of Cardiology. This exhibit was displayed at the Willow Valley Retirement Community’s Health Fair in June and was then displayed at their Manor Club for the month of August.

Nathan Leisenring, a pre-med student at University of Pennsylvania in Philadelphia, completed the six week internship researching the history of cardiology and used this research to select items from the EHMHF collection,. He created an exhibit that chronicled cardiology from it’s beginnings when the only tools available to a doctor was a stethoscope and sphygmomanometer (blood pressure machine) to the present day surgeries and pacemakers.



The exhibit included a century of stethoscopes from our collection including an 1835 wooden monaural stethoscope, a metal monaural stethoscope from the 1870s, a bell style binaural stethoscope, a bell style from the 1920s, a weighted bell from the 1950s to the diaphragm style of the 1960s and still used today.

Also displayed were two EKG machines, highlighting another breakthrough in cardiology. One, a very early model from the 1940s and the style used by medics during World War II, used film that had to be developed to record the heart rate



1980s Pacemaker

and although considered portable, weighed nearly fifty pounds. The second model in the exhibit, and used in the 1950s, was similar to the earlier model but used paper to record the heart rate much like today.

A major feature in the exhibit was a selection of im-

plantable pacemakers. The EHMHF collection includes early models from the 1960s and 1970s that had to be periodically replaced or removed for programming, as well as later models that can be programmed remotely.

Mr. Leisenring’s research paper will also be available on the EHMHF web site.



Willow Valley Cardiology Display

Summer Intern Researches Cholera and the Death of Gen. Edward Hand

This past summer, Alison Mann, a Pre-Med student at Chestnut Hill College conducted extensive research into cholera and whether or not it caused the death of Gen. Edward Hand.

Historians have listed the cause of Gen. Hand’s death in 1802 as cholera. As a result, EHMHF attempted to research the presumed cholera epidemic in Lancaster County in 1802.

Ms. Mann’s research took her from the research library at LancasterHistory.org, the Lancaster County Records Office, and The Mutter Museum to a search of Lancaster City and County cemeteries. There is no record of cholera in North America until 1832. The discovery of Gen. Hand’s obituary in the Lancaster Newspaper listed his cause of death as “cholera morbus”.

In the 18th and 19th centuries, it was not uncommon for *any* illness that had symptoms that included fever, vomiting and diarrhea to be referred to as “cholera morbus” and since there was no record of a cholera epidemic and no record of any other members of the household at Rock Ford Plantation having died



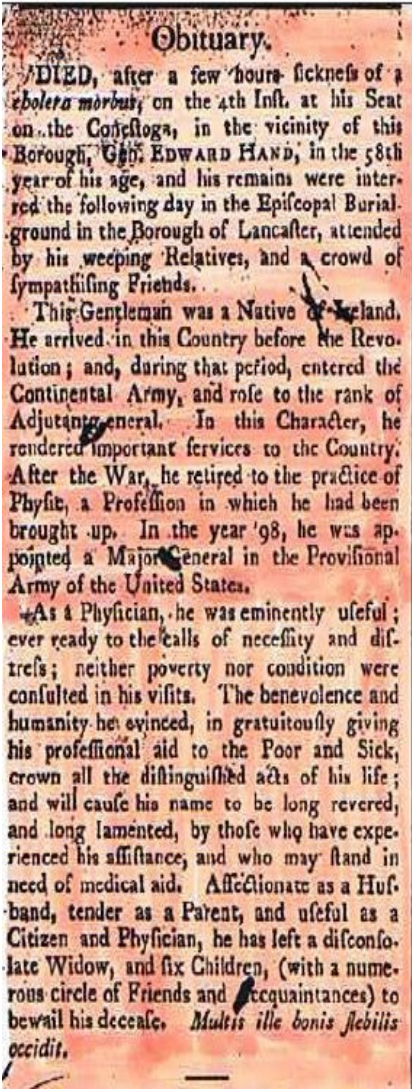
Cholera Bacteria

during the time of Gen. Hand’s death, it is highly unlikely that Gen. Hand died from the epidemic cholera that we know today.

Gen. Hand likely died from a non-epidemic illness such as salmonella, E. coli, typhoid or some form of food poisoning. Additionally, the common treatments of the day, such as purging may have contributed to the rapid progression of the illness and his death.

The omission of the word “morbus” by historians has led to the misconception that Gen. Hand died from the epidemic form of cholera.

Ms. Mann’s entire research paper will be available on the EHMHF web site and a poster documenting her research will be on display at Rock Ford Plantation during our upcoming event in June, 2013.



General Edward Hand, Obituary

Educating our Community Through our Collection

EHMHF 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. Upcoming histories will include that of radiology, urology, gastroenterology, and mental health services. The following are excerpts from articles that appear on our web site.

Excerpt from: A History of Lancaster General Hospital
by Henry Wentz, MD

In 1893 the population of Lancaster City was over 32,000 and the total population of the county was about 150,000. Electric trolleys were new, The depot of the Pennsylvania Railroad was at North Queen and Chestnut Streets. The houses of Lancaster glowed yellow with gas and Kerosene lamps. Grover Cleveland was President. Accounts of lively runaway horses on

Excerpt from: History of Contact Lenses

By Nick Siviglia, ScD., Ph.D.

"The Beginning"

The development of contact lenses is an old story, dating back to 1500 - 1508.

The first insight into the treatment of optical defects of the cornea with a device is given to the great Italian, Leonardo da Vinci. Master Leonardo filled a bowl with water, then placed a man's face into it. It is said that for the first time the individual was able to see clearly. There are two very important factors about this discovery including improved refraction and improved peripheral visual acuity.

Leonardo da Vinci also made a contact lens with a funnel on one side so that water could be poured into it. Of course, this was immediately discarded due to impracticality.

In 1636, after reviewing Leonardo's work, a French scientist, Renee Descartes, in a special medical treatise, *Ways of Perfecting Vision*, described a concept of a lens placed directly onto the eye. He developed a tube he could fill with water and place directly against the cornea. This was also impractical and discarded.

Duke Street were topics of the hour. Newspapers published railroad timetables. It was in this era that the LGH came into being in a small three story building at 322 North Queen Street. To this building physicians who traveled in buggies and on horseback came to treat their patients. Operations were performed in a made-over parlor. Proudly, the people of Lancaster talked about the seven rooms of the hospital, its accident room and the operation room. The gas lights glowed and flickered and in the hall was posted a notice, among other rules, stating, “no reading in bed at night, either by patients or any other person connected with this institution.” Another regulation forbade anyone to “smoke tobacco or play games of chance in the hospital.”

Lancaster had two hospitals—the County Hospital known as the Almshouse built in 1799 and St. Joseph’s Hospital built in 1883 and ten years later had 370 patients. Hospitals were viewed as a place to go to die. LGH started with two strikes against it: 1.) it started as an outcome of denominational or sectarian feeling, and 2.) it was not necessary to have two hospitals in a city the size of Lancaster.

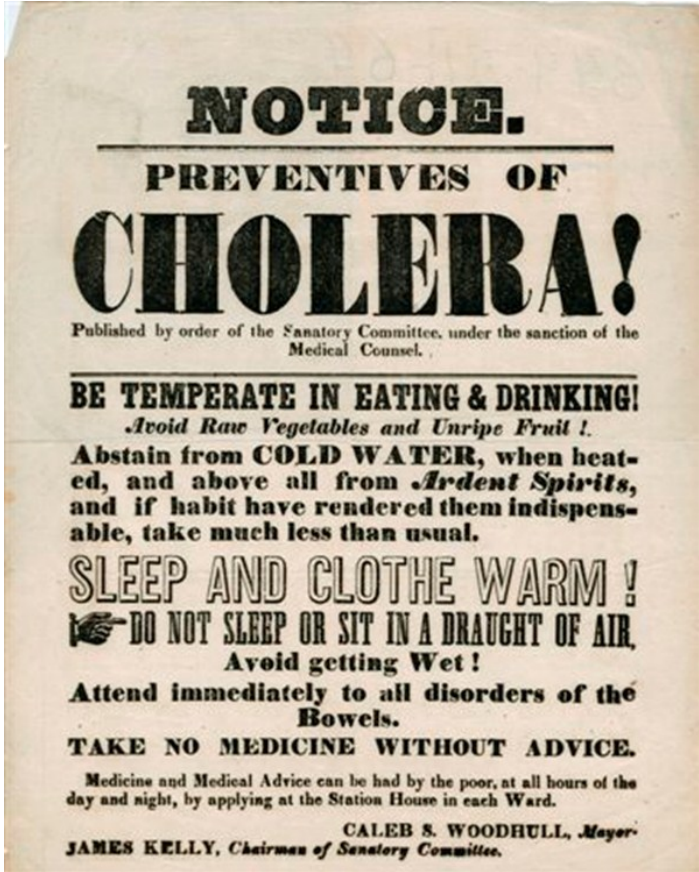


LGH -322 North Queen St. (1893)

We must remember that early technology did not make it possible to develop and manufacture devices that would fit directly on the eye and produce good vision. That being the case, spectacle lenses were the only devices used to correct vision. Patient's with regular corneas and normal astigmatism had very good vision. Individuals with corneal astigmatism or diseases and abnormalities of the cornea had minimal visual improvement with glasses. Wearable contact lenses did not begin to evolve until the nineteenth century. In 1801, Thomas Young described a neutralizing surface for the cornea that was the forerunner of contact lenses.

Sir John Herschel, the English astronomer and physicist, wrote and circulated an opinion that corneal contact lenses were, in fact, optically feasible. Herschel was also the first to suggest that an actual mould of the cornea might be taken.

These ideas though, lay dormant for approximately sixty years. His suggestions were theoretically sound but very problematic due to practical applications that were too difficult to overcome. One of the barriers was the need to make a mould of the sensitive corneal tissue. The cornea is totally avascular, with thousands of nerves, making a very sensitive tissue. With the introduction of anesthesia in 1884, contact lens technology advanced because moulding was made possible.



1830s Cholera Prevention Poster

Curator/Archivist Update

By Donna M. Mann

This past year there have been some exciting additions to the EDMHF collection. From Lancaster General Hospital, we received a large donation of archival materials. Included in the collection are hundreds of photographs & slides, newspaper articles, hospital newsletters, publications & press releases along with documents from the nursing department. This collection documents the entire history of Lancaster General hospital from it’s beginnings in 1893 to the present.

Our newest acquisition comes from the old Columbia Hospital, now part of Lancaster General Health. After the close of the hospital, much of the original archival documents along with some of the doctor’s equipment were stored away and recently donated to EHMHF. Included in the collection is a metal framed bassinet from the nursery, a surgical sponge rack with several sponges, and a wheelchair, examination table and cabinet from the 1920s. The archival materials include extensive records from the nursing school, the hospital board, and the ladies auxiliary as well as hundreds of photos of the hospital documenting its history.

As curator, I have begun a few projects to help make our collection more easily accessible to researchers. Our database is being upgraded and we have acquired software that will enable us to create three dimensional photos of each of our medical artifacts. This will enable us to eventually create a “virtual museum” with our entire collection available online.

Cataloging of the Henry and Richard Raub collection, which dates between 1835 and 1914, is nearly complete with all of the archival materials preserved and scanned into PDF (portable document format) documents. The PDF files will allow viewing of the documents without further damaging them. An example of one of these letters is shown on page 5. Eventually

all of the archival materials from LGH and Columbia Hospital will be scanned and accessible on the warehouse computers or online.

Another project I hope to complete in the coming months is the assembly of the pharmacy counter and shelving units at the warehouse

museum. Our collection includes a large amount of pharmacy bottles along with scales and mortar & pestle to stock the shelves to recreate a 19th century pharmacy similar to the pharmacy below.



19th Century Pharmacy

Edward Hand Medical Heritage and Rock Ford Foundations Event!

A Celebration of the History of the Healing Arts

Saturday, June 1, 2013

At Dr. Edward Hand’s Rock Ford Plantation

881 Rock Ford Road, Lancaster, PA

Cocktails at 6 o’clock

An 18th century inspired dinner

Dancing to follow

\$95 per person

Cocktail Attire



Letters 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 Richard’s letters to his father written on January 22nd, 1894.

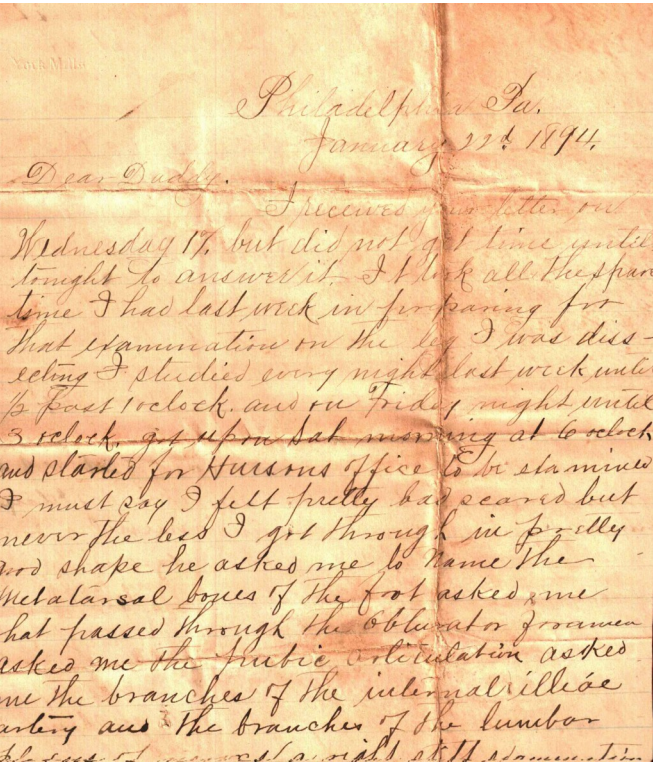
Dear Daddy,

I received your letter on Wednesday 17 but did not have time until tonight to answer it. I took all the spare time I had last week in preparing for that examination on the leg I was dissecting. I studied every night last week until 1/2 past 1 o’clock and on Friday night until 3 o’clock, got up on Sat morning at 6 o’clock and started to Hursons office to be examined. I must say I felt pretty bad scared but never the less got through in pretty good shape. He asked me to name the metatarsal bones of the foot, asked me the branches of the internal illiea artery and the branches of the lumbar plexus of the nerves. A right stiff examination for a first year man I am glad I am through with the confounded thing and wish I could get through with all of the rest of the examinations at the end of the term as I did with that one. But I am sure the only way to get through with these is the same way I did with this one and that is by hard and persistent studying however I will try and do my best. Fred Groff came down last night (Sunday) he came down to my place to see me three times but I was not in. I was at the Walnut Street Theater to hear John Wannamaker preach. He is most a miserable ugly man. After I came home Carr told me Fred was down to see me so I started right up to the Bingham House and saw him. He insisted that I



Richard V, Raub, MD

would come around in the morning and take breakfast and I am sure I am not going to be coaxed long when there is a good square meal in it so I went around and took breakfast with him at the Bingham House. My but things are fine and stylish a fellow had to almost be afraid to eat for fear of making a mistake. However I made out fairly well but you do not feel quite as comfortable as you do at home. Things are so



confounded stylish. I will go around to 206 and 208 Broad street and examine those wagons on Sat., next. Would go sooner but I cannot get off. Will let you know what they are like when I see them. How much does John want to pay for a wagon or has he got one. Fred said he did not see any of the folks before he left but he seen John. How are you all anyway’s. I am in very good health tell mom. I could not eat those pies after I did get them for I ate so much of one the first night and it made me so infernal sick that I have not inclined to touch one since. Tell Henry I can get him a set of boxing gloves any color he wants and just as good if not better than the ones they have at the restaurant for \$1.75 at the pawn shop. Has he decided on the pigeon question yet. Tell him to write and let me know all about things and if there is anything he wants from her now is the time to say so, for I will bring it along home with me on the 22nd day of February. There is quite a number going home on that day. Frank Wentz and his partner Miller Becker and myself all from Lancaster County and all going my way by George daddy I want to come home to get something good to eat once for I am getting tired of this grub and think if I get a change once of something good I can manage to stick it out fairly well until the end of the term. Is there much sickness in the village and was your operation on the young lady’s neck successful. If I come home on the 22nd I will leave here on Wed. eve on the 4,40 train so send James out to Christiana in time to meet it. I don’t know what time it will come to Christiana. As that is about all I have to say I will close.

My love to all, good night, write soon from R. V.