



ALBUM [TYPHUS AND DR. HARRY PLOTZ](#)

Album Description

In 1914, Harry Plotz, a 25-year old doctor at Mt. Sinai Hospital discovered a serum for typhus that was to help eradicate a major health problem in louse-infested army camps during World War I and beyond. This album is a collection of Plotz-related newspaper articles, images, and medical history websites that could become part of STEM curriculum around issues of vaccinations.

This is a collaborative album. Feel free to add to it!

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Teaching Notes:

Why is Dr. Harry Plotz dressed in a military uniform in this photograph?

Since this is an undated photograph, what clues would indicate the time period?

Based on contextual clues and research about Dr. Plotz's life and medical discoveries, how old do you think he was when this photograph was taken?

Reference Link: <http://www.loc.gov/item/2014713519/>

Contributor Names: Bain News Service, publisher

Created / Published: [no date recorded on caption card]

Genre: Glass negatives

Notes: - Title from unverified data provided by the Bain News Service on the negatives or caption cards.

- Forms part of: George Grantham Bain Collection (Library of Congress).

- General information about the George Grantham Bain Collection is available at

<http://hdl.loc.gov/loc.pnp/pp.ggbain>

Repository: Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA

<http://hdl.loc.gov/loc.pnp/pp.print>

Digital Id: ggbain 33367 //hdl.loc.gov/loc.pnp/ggbain.33367



Teaching Notes:

It is clear from this 1920 photograph that Dr. Harry Plotz continued his work to eradicate typhus following World War I. Students could investigate the eradication of diseases worldwide throughout history and then go on to learn more about the Centers for Disease Control, current epidemics, and world governing bodies related to health issues. In addition, the health conditions in war-related refugee camps could lead to more understanding of the impact of war on civilian populations.

[world health](#) [war refugees](#) [epidemics](#) [humanitarian aid](#)

Reference Link: <https://www.wdl.org/en/item/17346/>

This photograph, taken in 1920, is part of the World Digital Library. "During World War I and in the wars and upheavals that followed, the destruction of homes and public bathing facilities in Poland and the displacement of large populations led to widespread epidemics of typhus and other diseases. The American Jewish Joint Distribution Committee (JDC), a humanitarian organization created to aid Jews affected by the war and its aftermath, supported medical and sanitary work by existing regional organizations. In April 1920 the JDC sent American Doctor Harry Plotz, the discoverer of a typhus vaccine, to investigate the crisis conditions in Poland (including in regions currently part of Ukraine) and to develop a more comprehensive, systematic approach to preventing the spread of disease."

A SCHOOLTEACHER MADE THIS MAN GREAT



Teaching Notes:

This 1939 article in a Washington, D.C. newspaper, tells the story of a young student named Harry Plotz in Public School Number 25 in Brooklyn, and of the impact of a single teacher just when Harry was on the verge of dropping out of school.

The teacher convinced Harry to stay in school, and Harry went on to discover a serum against typhus in 1914. "When the World War broke out, it was Dr. Harry Plotz who cleaned up typhus-plagued Serbia. And a few years later, it was Dr. Harry Plotz who was called to carry on the work of the great Pasteur, as head of the Pasteur Institute in Paris. And of course it was Dr. Harry Plotz who was directing the research that might virtually end the scourge of children, measles."

This story has many messages for students about the importance of persistence, the role of influential teachers, and the value of an education! I would probably use it as a introductory read-aloud, followed by class discussions.

[teachers](#) [read-aloud](#) [character education](#)

Reference Link: <https://chroniclingamerica.loc.gov/lccn/sn83045462/1939-01-08/ed-1/seq-76>

Newspaper: Evening star. [volume] (Washington, D.C.) 1854-1972

Newspaper Link: <https://chroniclingamerica.loc.gov/lccn/sn83045462/1939-01-08/ed-1/seq-76>

Image provided by: Library of Congress, Washington, DC

PDF Link: <https://chroniclingamerica.loc.gov/lccn/sn83045462/1939-01-08/ed-1/seq-76.pdf>



TYPHUS DISCOVERY DESCRIBED IN PAPER.PDF

Teaching Notes:

This 1914 New York Times article describes in more detail the scientific basis of the Plotz discovery.

I would use this article as a question focus in the [Question Formulation Technique](#) protocol from the Right Question Institute. The article should lead to all sorts of questions about lice and their role in spreading disease, the fact that medical discoveries do not normally take place in a scientific vacuum, and perhaps some questions about territorial behaviors and ethics within the scientific community. Whichever questions students choose to prioritize, this article should lead to more research.

[6 - 8](#) [9 - 12](#) [Science](#) [medical discoveries](#) [QFT](#)

THE SOUTHERN HERALD, IMAGE 1



Teaching Notes:

Zoom into two stories on this page from a 1915 Mississippi newspaper.

The first is an article with the headline, "Typhus Takes Toll." It recounts the miserable conditions in a town in Serbia overwhelmed by refugees. "Nish itself, as even the most patriotic Serb will tell you, is a wretchedly dirty town. In normal times, its population is 20,000. Now it has more than 100,000. Refugees sleep in the streets."

The second article has the headline, "Finds Anti-Typhus Serum: Dr. Harry Plotz, Young New York Bacteriologist, Announces Important Discovery."

How might these two articles be related?

Students might wish to compare the conditions of Nish, Serbia, with conditions in refugee settlements today. What is it about refugee camps that challenges and overwhelms medical workers, both throughout history and today?

[6 - 8](#) [9 - 12](#) [Science](#) [Social Studies/History](#) [public health](#) [refugee camps](#) [sanitation](#) [humanitarian aid](#)

Reference Link: https://chroniclingamerica.loc.gov/lccn/sn87007277/1915-05-28/ed-1/seq-1/print/image_681x648_from_1101%2C5375_to_1960%2C6193



Newspaper: The Southern herald. (Liberty, Miss.) 1866-current

Newspaper Link: https://chroniclingamerica.loc.gov/lccn/sn87007277/1915-05-28/ed-1/seq-1/print/image_681x648_from_11...

Image provided by: Mississippi Department of Archives and History

PDF Link: <https://chroniclingamerica.loc.gov/lccn/sn87007277/1915-05-28/ed-1/seq-1.pdf>

CHARLES AB



DIC 1898.JPEG

Teaching Notes:

Help students find personal connections to primary sources. My personal connection is this photograph of my grandfather, Charles Abram Gildersleeve, who served as a medic in the U.S. Army during the Spanish American War. He was 17 years old!

Reference Link: <https://i.imgur.com/aQEbCX8.jpg>



MILITARY MEDICINE IN WORLD WAR I

Teaching Notes:

This outstanding secondary source article from the United States World War I Centennial Commission provides valuable historical context for the following topics:

- Practice of Medicine in WWI
- Precedents for American Military Medicine
- Mobilization of American Medicine in World War I
- State of American Medicine in World War I
- Public Health and Sanitation
- Rehabilitation

I would start with a guiding question, such as "How does the work of Dr. Harry Plotz fit into the context of medicine in general during the time period of World War I and military medicine in particular?"

[6 - 8](#) [9 - 12](#) [Science](#) [Social Studies/History](#) [military medicine](#) [military medical history](#)

WE'VE FOUGHT IN THE OPEN - BUBONIC PLAGUE, YELLOW FEVER, TUBERCULOSIS--



Teaching Notes:

What other health issues came to the forefront during World War I? Were other medical professionals besides Dr. Harry Plotz working to eradicate diseases other than typhus? What was happening during this time period to advance the study and understanding of infectious diseases and their causes?

This poster hints at a broader view of medical research during this time period and might be used as a question focus for students to generate their own questions using the [QFT](#) protocol.

[6 - 8](#) [9 - 12](#) [Science](#) [infectious diseases](#) [posters](#) [public health](#)

Reference Link: <http://www.loc.gov/item/96502763/>

Summary: Poster shows emaciated human figures, representing various diseases, cower beneath a partially nude female figure, representing venereal disease, chained to a vulture.

Contributor Names: Welsh, H. Devitt, 1888-1942, artist

United States. Committee on Public Information. Division of Pictorial Publicity.

Created / Published: New York : H.C. Miner Litho. Co., [1918?]

Subject Headings: - World War, 1914-1918--Medical aspects--United States

- Health education--United States--1910-1920

- Sexually transmitted diseases--United States--1910-1920

Genre: War posters--American--1910-1920

Lithographs--Color--1910-1920

Notes: - Title from item.



- Designed in collaboration with D.P.P.
- No. 21153.
- Promotional goal: U.S. G32. 1918?

Repository: Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA

<http://hdl.loc.gov/loc.pnp/pp.print>

Digital Id: ppmsca 50577 //hdl.loc.gov/loc.pnp/ppmsca.50577

cph 3g04257 //hdl.loc.gov/loc.pnp/cph.3g04257



Teaching Notes:

Although used as a soldier training film during World War II, this British film (revised for use in American basic training) includes a history of the impact of lice on soldiers during World War I. It is especially useful for science classes due to its clear visual explanation of the behaviors of lice and the difficulty of eradicating them.

The history section begins just after mark 4:00.

[6 - 8](#) [9 - 12](#) [Science](#) [public health](#) [military training](#) [lice](#)

'This is a British training film, revised by the U.S. Army Signal Corps for use in American basic training. In this film, lice are seen, their breeding described, their feeding and the different diseases they transmit to human body. At mark 1:15, lice are seen on clothing for one of their favorite hide out is in seams of clothes. Each corners of the clothing is used for egg production as seen at mark 1:43. Under the microscope, the eggs appear as grains of rice. They hatch out very quickly while the warmth from human's body act as incubator for them and saving the mother from any further responsibility as seen at mark 2:05. Here they are on the human body and they suck the blood and die as seen at mark 2:32. The lice is capable of giving a man septic skin infections, relapsing fever, typhus and trench fever as seen at mark 2:52. Septic skin infection result from scratching after been bitten as seen at mark 3:12. Relapsing fever is seen at mark 3:29 which result from the blood mixing of the lice and human's. Typhus and trench fever is seen at mark 3:40. This is caused from the pellets of the lice which drop on clothing and is been transmitted into the air. This is seen at mark 4:05. History is full of disasters caused by these tiny beasts. These are seen from mark 4:13 through to mark 5:08. By cleaning oneself clean, lice can be prevented as seen at mark 5:25. Blankets and clothing should be kept



to yourself. All blackest are sealed up and fully seamed to get rid of lice as seen at mark 5:57. As seen at mark 6:30, lice can be seen in the human hair breeding. Hence soldiers are advised to clean the hair. It is advised that all the men in the platoon should be disinfected all at the same time as seen at mark 7:10 so the works won't be wasted. As seen at mark 7:47, all the men are checked up for infections all at the same time and that is it. At mark 8:00 a louse under the armpit of a soldier. Now the armies have made special plans for the eradication of lice.

At mark 8:19, the MO calls the field hygiene section units with qualified sanitary assistance mounted on motorcycles. Appropriate disinfector is also mounted on a vehicle. Arriving at the camp, it goes immediately into action. At mark 8:53, the blankets are been checked and dusted. The medical officer also summons the mobile bath unit. As seen at mark 9:00. They bring with them affordable disinfectors as seen at mark 9:30. Their main work is to bath, bar and disinfects all troupes of the formation and it is been set up as the troupes are been brought to it as seen a mark 9:48. The men make their way to the bathing tent at mark 10:25, each men receive a numbered disk before removing their cloth so as not to cause mix ups. As soon as the battle dresses are removed, each are placed on a rod and placed in a ret of disinfector and the heating machine is getting ready as seen at mark 10:55. Shirts and underwear are been taken for laundry and shoes are taken off as their boot receives disinfection as seen at mark 12:00. The men take their bath and each receives their clean cloths and underwear. At mark 12:50, the troupes leave the bath site as one of the troupes is left behind as seen at mark 12:58. He enters back into the bath vehicle as seen at mark 13:30 and from there got all the lice back on his clothing. As seen at mark 13:55, at the mobile laundry, the dirty underclothing are disinfected to get rid of all lice. Its then washed thoroughly at mark 14:27. After the thorough washing, the cloth goes into a hydro extractor driven by electricity which removes excess water from the cloth as seen at mark 15:23. At mark 16:00, an oil drum is been worked upon to make a disinfector. This disinfector is seen at mark 16:57. Another type of disinfector is seen at mark 17:00. At mark 17:45, it's been used to disinfect some blankets. At mark 18:05, a shower is made. At mark 19:03, a man is seen rubbing a louse powder AL-63 on his clothing and goodbye louse. Remember that cleanliness and use of your AL-63 is best to keep lice off.

We encourage viewers to add comments and, especially, to provide additional information about our videos by adding a comment! See something interesting? Tell people what it is and what they can see by writing something for example like: "01:00:12:00 -- President Roosevelt is seen meeting with Winston Churchill at the Quebec Conference."

This film is part of the Periscope Film LLC archive, one of the largest historic military, transportation, and aviation stock footage collections in the USA. Entirely film backed, this material is available for licensing in 24p HD and 2k. For more information visit <http://www.PeriscopeFilm.com>

PLOTZ OBITUARY_NY TIMES_7 JAN 1947.PDF

Teaching Notes:

The additional information in the obituary gives evidence of the entire career of Dr. Harry Plotz. Students could continue researching the impact of Dr. Plotz by focusing on specific parts of his life story:

- Bacillus of typhus
- Typhus serum
- Typhus control
- Invention of the Army delouser
- American soldier treatments prior to boarding transports for France during World War I
- Pasteur Institute
- Discovery of the measles virus
- Mass production of a vaccine against typhus fever of the European type

[6 - 8](#) [9 - 12](#) [Science](#) [vaccines](#) [Pasteur Institute](#) [inventions](#)



MILITARY MEDICINE IN WORLD WAR I

WHY THEY HAVE TYPHUS IN ROUMANIA. TYPHUS IS EPIDEMIC IN ROUMANIA. IT IS A DISEASE CARRIED BY BODY LICE. WHERE PEOPLE ARE CLEANLY IN THEIR HABITS OF LIFE TYPHUS IS AN IMPOSSIBILITY. BUT IN ROUMANIA, CLEANLINESS IS VIRTUALLY IMPOSSIBLE. THE AMERICAN RED CROSS COMMISSIONER TO ROUMANIA, IIN HIS OFFICIAL REPORT, TELLS WHY CLEANLINESS IS IMPOSSIBLE IN HUNDREDS OF ROUMANIAN VILLAGES. DESCRIBING ONE SECTION WHICH IS A TYPICAL SECTION BY THE WAY HE SAYS, "THEY HAVE VERY LITTLE SOAP, NO BEDDING, NO CLEAN CLOTHING FOR THE TYPHUS SUFFERERS AND NO FOOD." HOSPITAL FACILITIES ARE HOPELESSLY INADEQUATE. ABOUT ALL THAT HOSPITAL TREATMENT AMOUNT TO IN SUCH A COMMUNITY IS ISOLATING THE TYPHUS AND SMALL POX VICTIMS FROM THE



Reference Link: <http://www.loc.gov/item/2017669659/>

Created / Published: 25 July 1919 [date received]

Subject Headings: - American Red Cross

- Romania

Genre: Glass negatives

Notes: - Title, date and notes from Red Cross caption card.

- Photographer name or source of original from caption card or negative sleeve: ARC, Official Red Cross Photo.

- Group title: Roumania.

- Used in: Ex. Sept. Div. Bulletin. Sept. 1.

- Gift; American National Red Cross 1944 and 1952.

- General information about the American National Red Cross photograph collection is available at

<http://hdl.loc.gov/loc.pnp/pp.anrc>



- Temp note: Batch 9

Repository: Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA

<http://hdl.loc.gov/loc.pnp/pp.print>

Digital Id: anrc 03688 //hdl.loc.gov/loc.pnp/anrc.03688