



National Museum of Health and Medicine

Otis Historical Archives

OHA 112 Benecke Photomicrographs

Date of Records: 1880s

Finding Aid: Eric W. Boyle (2013)

Size: 1 box

Biographical Note: Berthold Adolf Benecke (1843-1886) earned his medical degree from the University of Königsberg in 1866, where he subsequently became Instructor and Prosector in Anatomy. He worked as a military doctor in the Franco-Prussian War in 1871 and resumed his prior position at the Anatomic Institute from 1872-1877, before becoming Professor and Chair of Topographical Anatomy. He published several studies in embryology. In 1868, Benecke published an important book on the topic of photomicrography under exactly the same title as Joseph von Gerlach's (1820 – 1896), *Die Photographie als Hilfsmittel mikroskopischer Forschung*. Gerlach gained fame for developing a vertical setup for producing photomicrographs and is considered one of the first physicians to use photomicrography for medical research. Benecke's book was essentially a translation of the 1866 work by Albert Moitessier (1833 – 1889), titled *La photographie appliquée aux recherches micrographiques*, with additional comments. Also in 1868, Oscar Reichardt and Carl Stürenberg published their book *Lehrbuch der Mikroskopischen Photographie*, which describes methods of illumination that do not require direct sunlight. Benecke's work and the book by Reichardt and Stürenberg are considered the first truly useful introductions to photomicrography, while the latter one was the more practical introduction for scientists working in this field.

Series/Scope and Content Note: These two small volumes contain photomicrographs with brief, mostly illegible, handwritten descriptions. The first volume contains twelve photomicrographs with legible descriptions on the reverse side; the second volume has nineteen photomicrographs but the illegibility of the descriptions precludes their listing below. All bear the stamp of Dr. Benecke but some of the images in the first and second volume are attributed to others. A handwritten note in the second volume indicates the books were given to Dr. A.C. Christy of the Army Medical School in 1912. This note places the date of origin of the photomicrographs between 1888 and 1891.

BOX AND CONTENT LIST

First volume of twelve photomicrographs include the following descriptions of reverse:

1. Cornea of *Rana esculenta* (Dr. Grunhagen)
2. Ville of small intestine of rabbit (Dr. Grunhagen)
3. Section of spinal ganglia of rabbit (Dr. Buckholz)
4. Muscular coat of bladder of rabbit (Dr. Waldeger)



5. Section of ear of hog (Dr. Grunhagen)
6. Section of dried tendon from finger (Dr. Grunhagen)
7. Epidermis from scale (Dr. Benecke)
8. Section of gastrocnemius of *Rana esculenta* (Dr. Grunhagen)
9. Fungiform papilla of calf (Dr. Verts)
10. Section of dried ureter of ox (Dr. Waldeger)
11. Section of hoof of hog (Dr. Benecke)
12. Section of dentine of human molar tooth (Dr. Jacobson)

Second volume of nineteen photomicrographs includes mostly illegible descriptions