

# Early chest radiology pioneers

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**Past Chair British Society for the History of Radiology  
2012-2017 and current Trustee**

**Treasurer ISHRAD**

# Francis Henry Williams (1852-1936)

- Father of American Radiology



# Francis H Williams(1852-1936)

- 1873 - degree in chemistry
- 1877 -medical degree from Harvard
- 2 years study in Europe (Paris and Vienna)
- 1879 physician in Boston
- 1894 first to use antitoxin in diphtheria
- 1896 starts work with x-rays Rogers lab of Physics MIT
- Eventually exams done at Boston City Hosp

- Early work on Tb, emphysema, pericardial effusion etc
- By 1897 419 volumes 250 pages each of fluoroscopic drawings of patients with chest problems
- Works with Walter Cannon on gi tract
- Works on fluoroscopic screen (first person to fluoroscope chest April 14 1896)
- 1901 writes The Roentgen Rays in Medicine and Surgery (391 illustrations)

- Described apical changes in TB
- Signs of pleural effusion
- Cardiac failure
- Pneumothorax
- emphysema

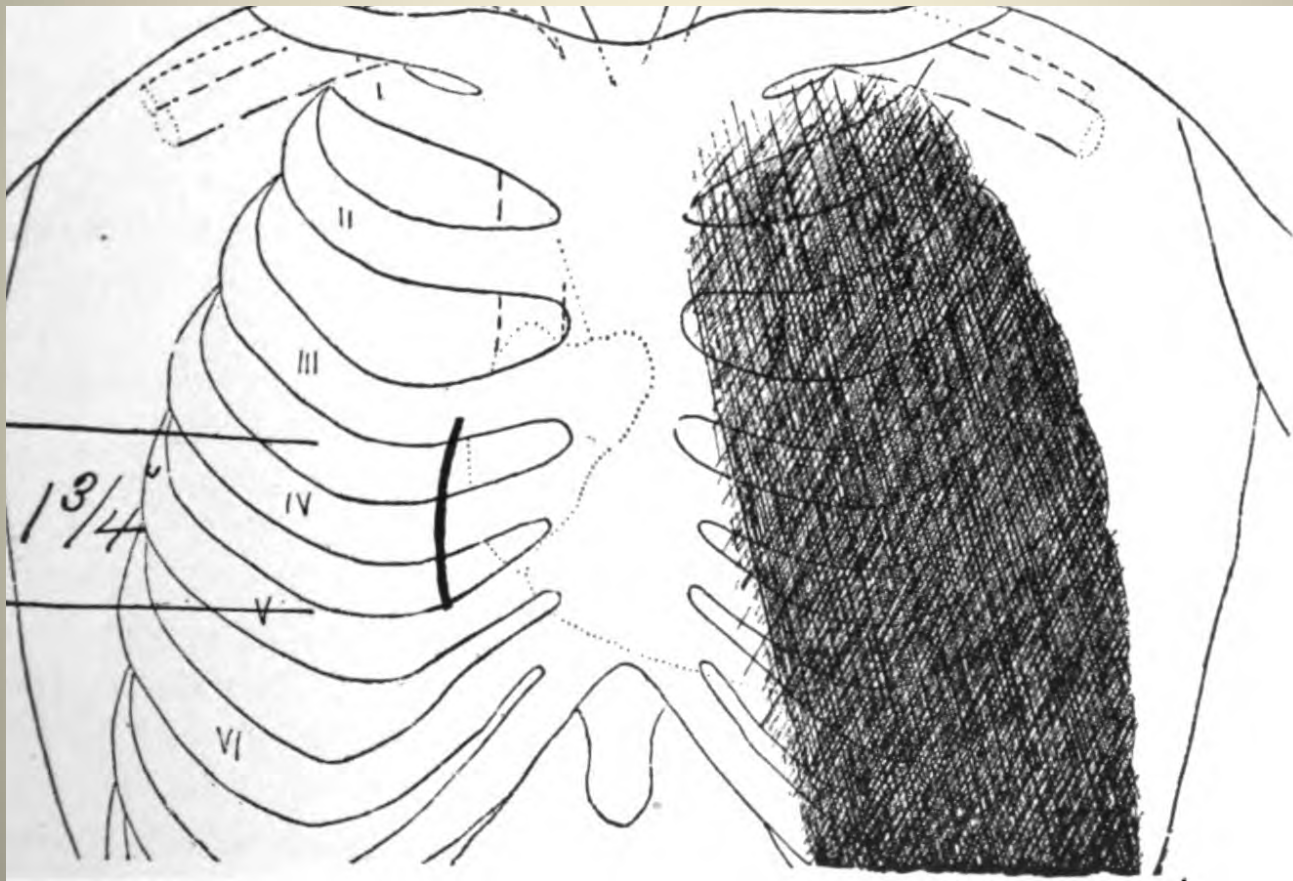
# The Rontgen Rays in Medicine

- Early chest x-ray ( from book)  
by Francis Williams

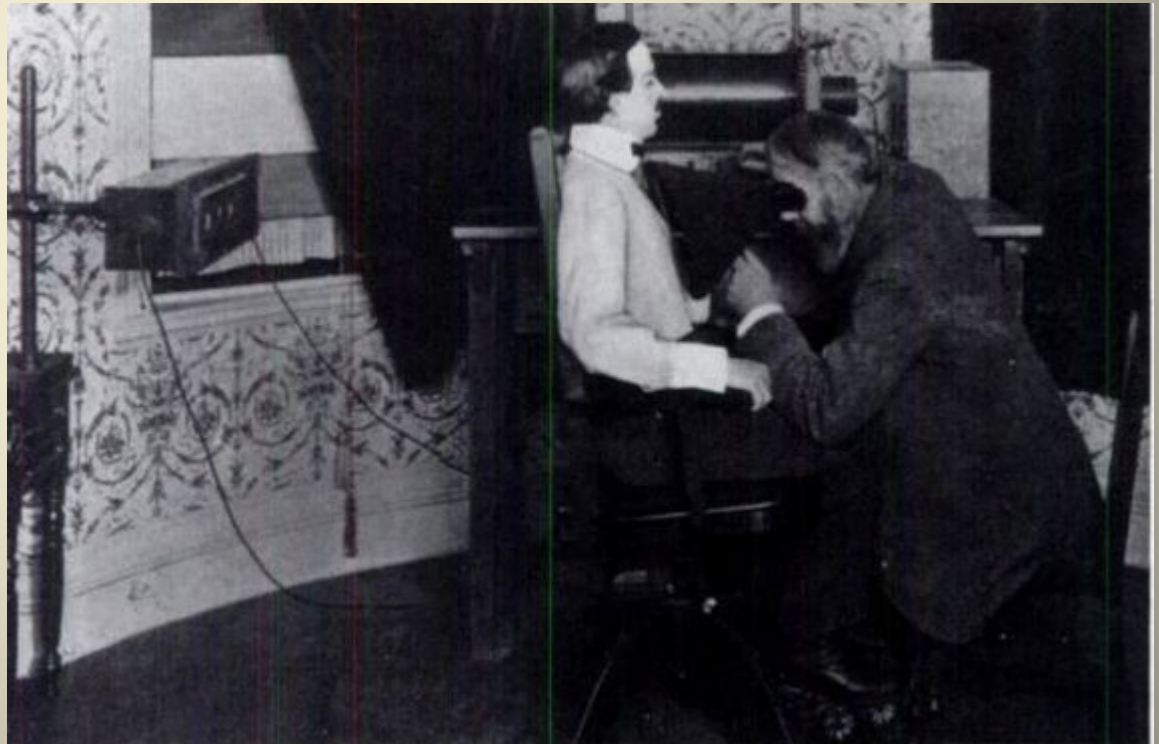


Drawing of chest x-ray showing left pleural effusion with cardiac displacement to right

- From book Rontgen Rays in Medicine 1901

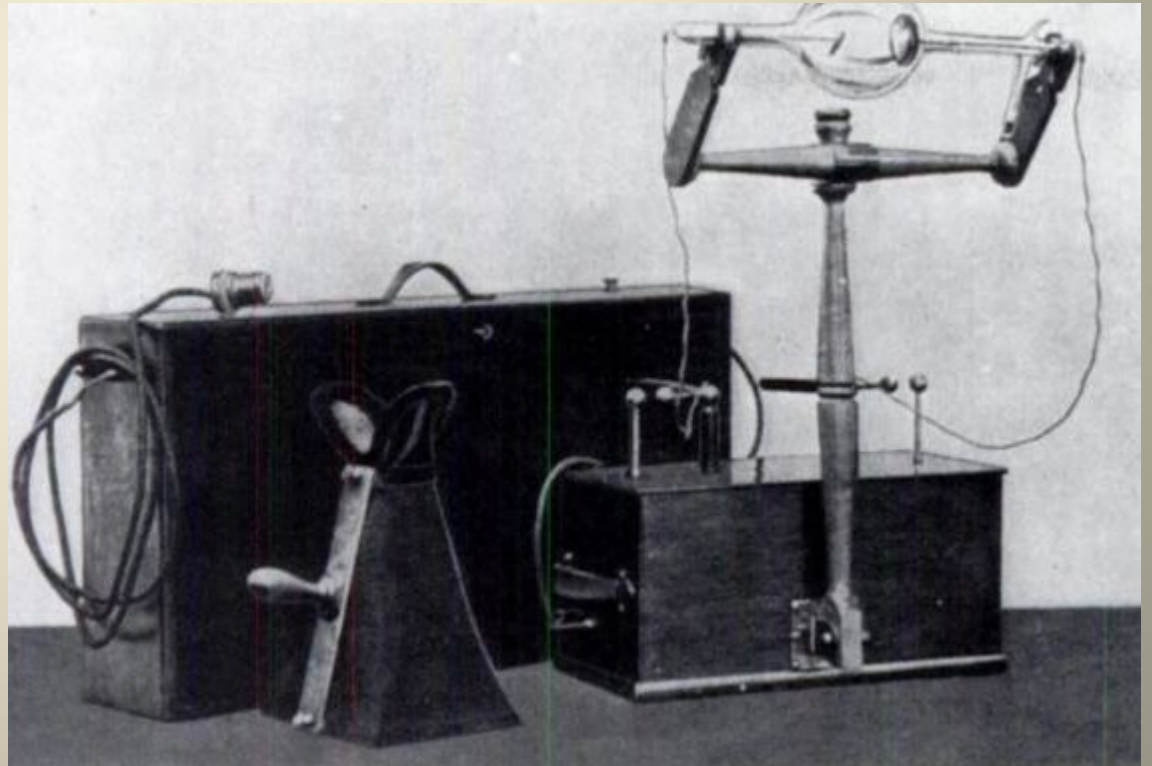


- cryptoscope

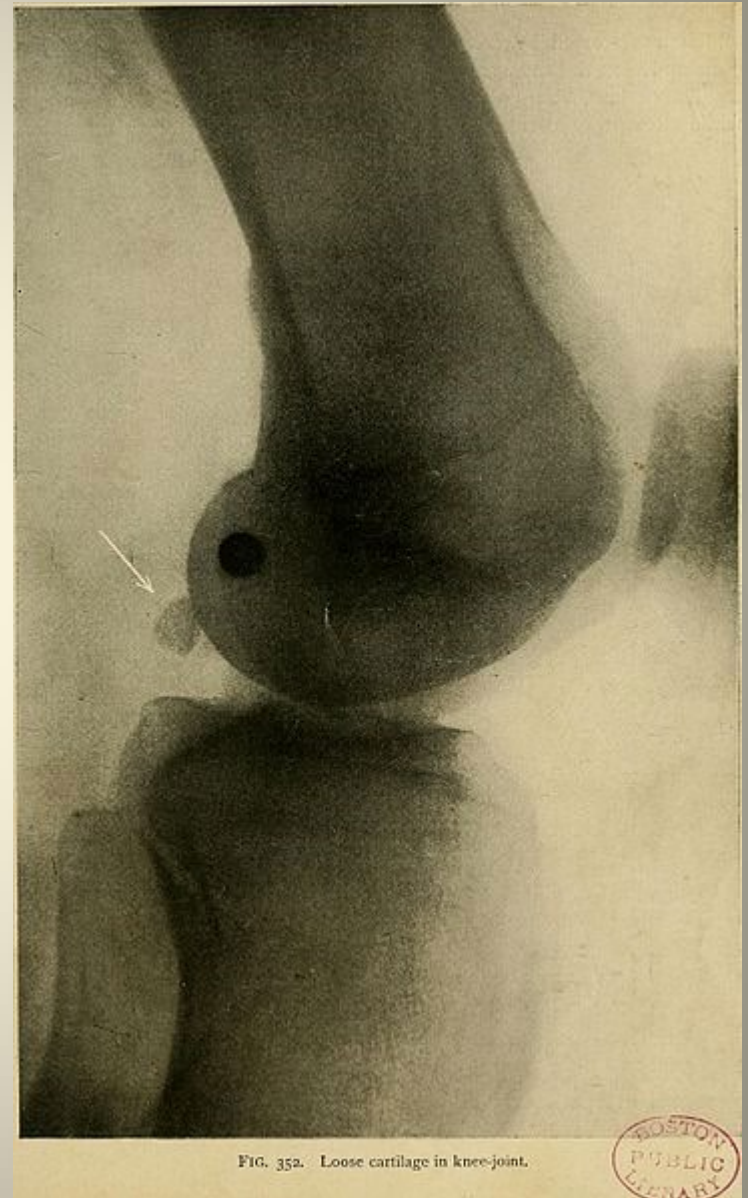




- Early fluoroscope

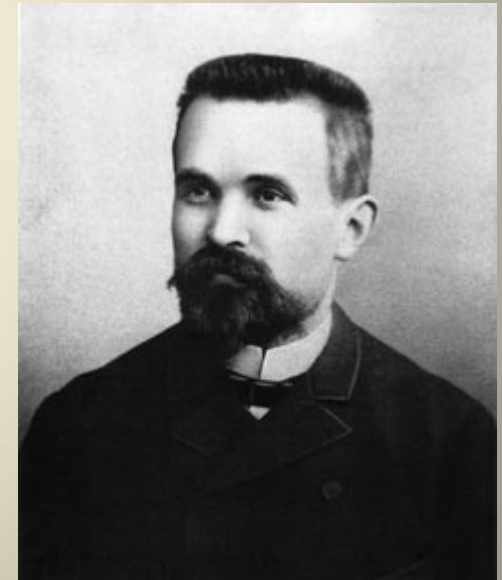


- Image knee x-ray  
from book



# Antoine Beclere

- 17 March 1856 – 24 Feb 1939
  - Qualified 1882 with a thesis on measles
  - 1898 set up radiology dept in Hopital Tenon
  - 1899 Hopital St Antoine
  - "Rontgen Rays in the Diagnosis of Tuberculosis" ( 1899)
- 1928 President Academy of Medicine
- 1931 President 3<sup>rd</sup> International Congress of Radiology



- Beclere, A. (1902). On the technique of the application of the Rontgen rays in the diagnosis of tuberculosis. In Trans. Brit. Cong. Tuberc., London, 1901, Vol. 3, p. 278.





tended that it seems well worth while to give it to our readers. It began at two o'clock, was interrupted at six-thirty by an informal dinner, after which two addresses were given. The program follows:

Roentgen Kymographic Studies in Cardiac Physiology. Ancel Keys, Ph.D., and H. S. Friedell, M.D., Minneapolis.

A Series of Interesting Duodenal Lesions. H. M. Weber, M.D., and C. Allen Good, Jr., M.D., Rochester.

Bone Atrophy: Report of an Unusual Case. C. P. Truog, M.D., and R. E. Buirge, M.D., Minneapolis.

The Practice of Radiology in Sweden. H. M. Berg, M.D., Bismarck, N. D.

Symposium on Radiation Therapy of Neoplasm of Stomach: Report and Analysis of Cases. C. N. Borman, M.D., A. U. Desjardins, M.D., C. O. Hanson, M.D., R. W. Morse, M.D., Edward Schons, M.D., and K. W. Stenstrom, Ph.D.

Medical Experiences in China. John L. McKelvey, M.D., University of Minnesota.

Observations on Roentgenology in Europe. H. M. Weber, M.D., Rochester.

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## GEORGIA RADIOLOGICAL SOCIETY

The Georgia Radiological Society held its Fall Meeting at the Macon Hospital, Macon, Georgia, on Dec. 13, 1938. Twenty members were present. The program consisted of: (1) a short business session; (2) a diagnostic round table, during which films were presented and discussed; (3) a paper on "Timing in Radiation Therapy," by Hillyer Rudisill, Jr., M.D., Roper Hospital, Charleston, S. C., the guest speaker; (4) a symposium on x-ray therapy of the breast, conducted by Thomas Harrold, M.D., Macon,

## IN MEMORIAM

ANTOINE BÉCLÈRE (1856-1939)

Men are born, men die, and the world goes on as if their brief existence had not even made a ripple in the current of eternity. For the majority of human beings life is a mere struggle for a more or less precarious existence, and their presence on earth does little more than move the decimal point in vital statistics. But from time to time a man is born who, because of superior physical and mental endowment, because of exceptional opportunities, or because of hard and intelligent labor, may influence his profession in his own country or in the entire world, may affect the trend of science, or may alter the course of history.

When, so recently, news of the death of Antoine Béclère was received, even the younger generation of radiologists outside of his native France, who barely knew his name, were affected because they saw the profound impression which this information produced on their seniors, most of whom well knew the tremendous influence which the work of Béclère has had on the development of medical radiology. His life can be cited as a well-nigh perfect example of the great and widespread effect which intelligent and persistent labor can have on the development of an art or science or on any form of human activity.

In France, where for so many years Béclère dominated the field of radiology, his death marks the passage of an epoch. In no other country, perhaps, has one man had such a predominating influence on a medical specialty as Béclère has had on French radiology. It was he who trained and inspired most of the present-day leaders in this field. Among the prominent exponents of radiology in France,

# RSNA

# Guido Holzknecht 1872-1931



- Became director of radiology at Vienna General Hospital
- Worked with Kienbock
- Described retrocardiac space on chest x-ray
- Described mediastinal shift in lung collapse
- Wrote several books including Fortschritte auf dem Gebiete der Rontgen strahlen
- Radiation martyr



# John Mc Intyre 1857-1928

Imaged coin in  
oesophagus 1896

Medical electrician Glasgow RI

President 1893 British

Laryngological Society



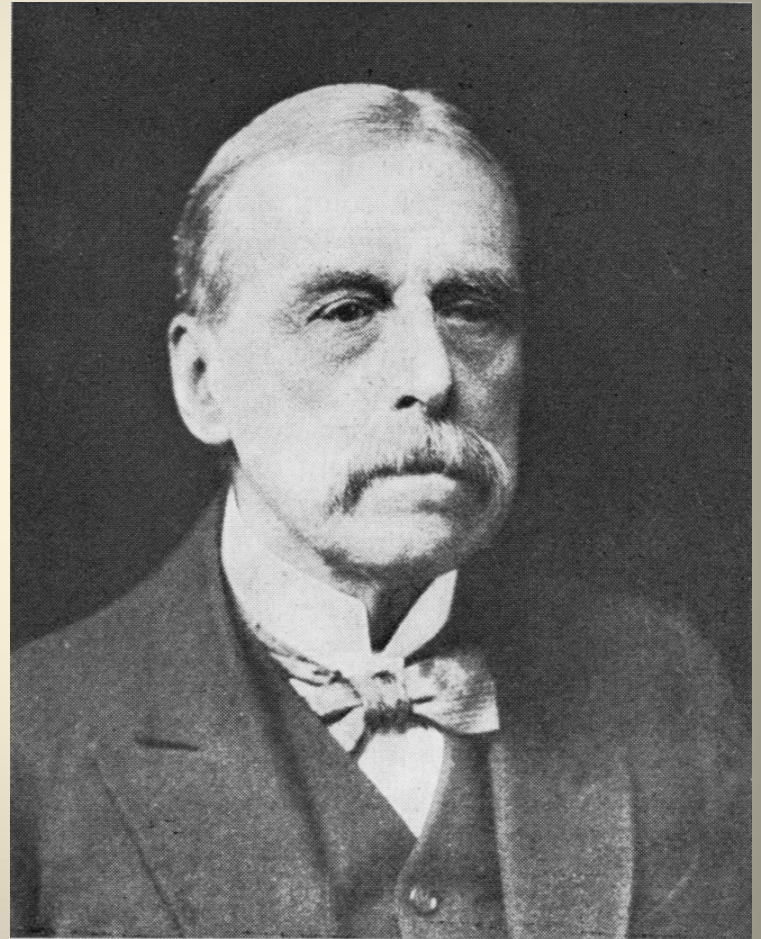


- The human heart
  - 1896
  - John McIntyre
- Ward's Practical  
Radiography 1896



# Hugh Walsham

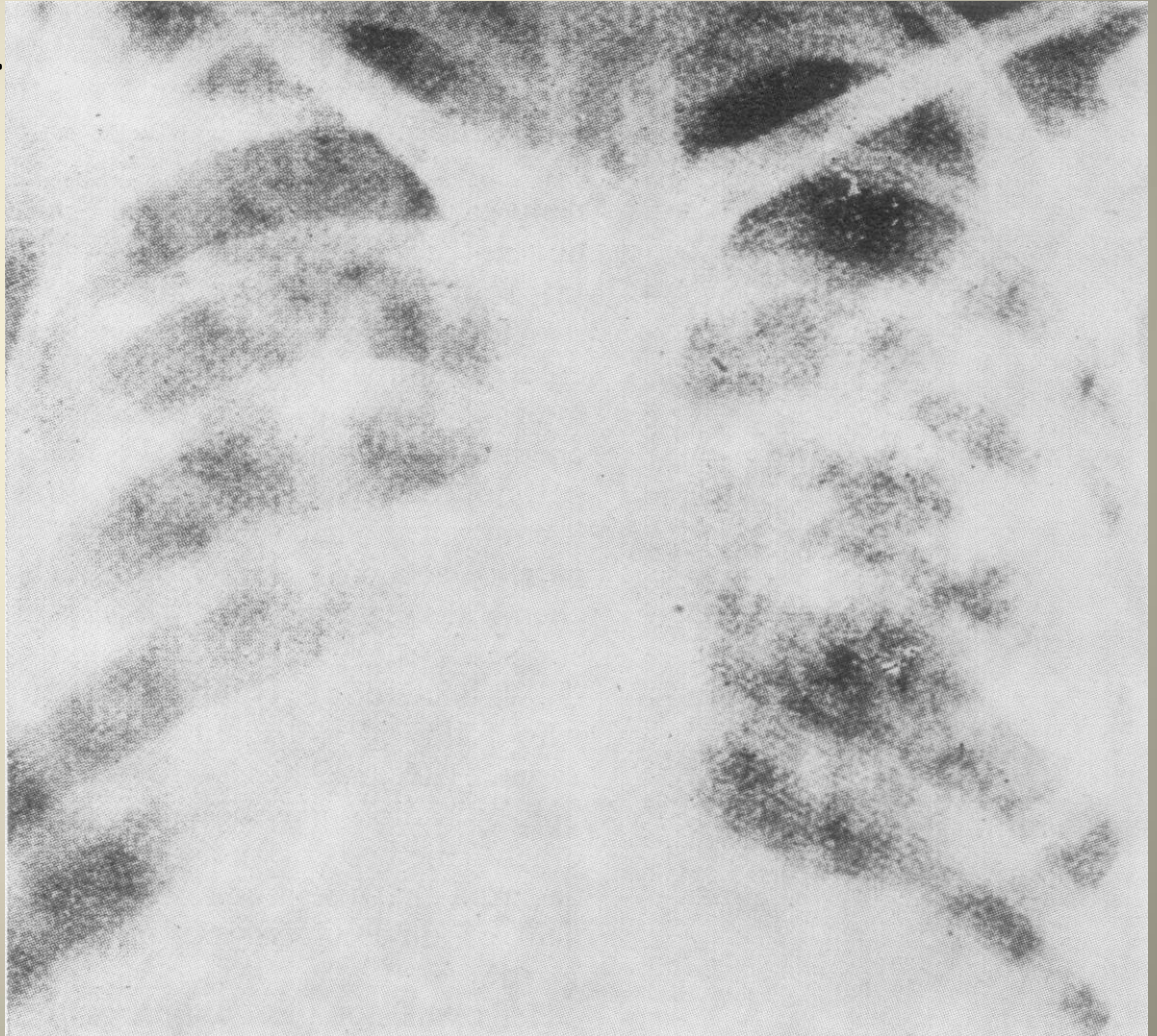
- Hugh Walsham
- b.7 November 1853
- d.13 April 1924
- Qualified in medicine 1887
- (Cambridge and St Bart's,Lond)



- *Roentgen Rays in the Diagnosis of the Diseases of the Chest* (1906), written with Harrison Orton first book on chest radiology in UK
- Became consultant radiologist at St Bartholomew's Hospital 1917 having started of as assistant to Lewis Jones in the electrical dept 1896
- Also pathologist and physician London Chest Hosp



- Cavities -1901
- TB



- Walsham, H. (1902). Discussion on the use of the Rontgen rays in the diagnosis of pulmonary tuberculosis. In Trans. Brit. Congr. Tuberc., 1901, Vol. 3, p. 267.

- William Osler, in the third edition of his famous textbook (1898), did not mention x rays at all and in a subsequent edition disparagingly remarked 'in the majority of cases the x rays tell us no more than a careful clinical examination' and thought 'radiographers need the salutary lesson of the Dead House to correct their Visionary interpretation of shadows. . .' (Osler,1920).



X-RAY DIAGNOSIS  
& TREATMENT

BYTHELL & BARCLAY

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284  
OXFORD MEDICAL PUBLICATIONS

X-RAY  
DIAGNOSIS AND TREATMENT

A TEXT-BOOK FOR  
GENERAL PRACTITIONERS AND  
STUDENTS

BY

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1912



# CHAPTER VII

## EXAMINATION OF THE THORAX

It must be clearly understood that an X-ray examination of the thorax is merely one of the methods at our disposal and that it should never be allowed to supplant clinical and other observations. When properly used in conjunction with these, however, it is an exceedingly valuable aid both in diagnosis and in the estimation of the extent of thoracic lesions.

**Methods of Examination.** The examination is carried out chiefly by means of the fluorescent screen and the following routine method should be undertaken, the patient standing or sitting with his back to the tube, and his chest in contact with the screen. The patient should also be examined with his back to the screen.

1. The aperture or diaphragm, through which the rays emerge, being wide open so that the whole of the chest is illuminated, the observer should first make a general survey of the thoracic



# Acknowledgements

- The Roentgen Rays in Medicine and Surgery 1901 Francis Williams
- Munks Roll
- R Greene F H Williams Father of Chest Radiology in North America Radiographics 1991 11 2 325
- Archives BIR and RSM
- Beclere [https://en.wikipedia.org/wiki/Antoine\\_B%C3%A9cl%C3%A8re](https://en.wikipedia.org/wiki/Antoine_B%C3%A9cl%C3%A8re)
- Obituary notices Radiology, Nature, Brit J Radiology
- E H Burrows Pioneers and early Years 1986
- Thomas and Banerjee The History of Radiology OUP 2013