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History of the Electrocardiogram

M1 – Cardiovascular/Respiratory Sequence
Jimmy with Electrodes
Fig. 64.—Einthoven's diagram of his string galvanometer. a, pole pieces of the electromagnet between which is suspended a silver-coated quartz string. b, sketch of the electromagnet. c, diagram of the electric circuit of the galvanometer. (Einthoven, W.: Arch. internat. physiol. 4:132, 1906.)
Willem Einthoven
Figure 2.4  Dudgeon’s sphygmograph showing a recording of the radial arterial pulse.
From Bramwell B. (1884) Diseases of the Heart. Young J. Pentland, Edinburgh
Fig. 102. (× $\frac{3}{5}$) Complete irregularity of the pulse. From a case of auricular fibrillation. The lengths of the cycles are marked in fifths of a second below the curve and show the wide variation which characterises the condition.
Figure 2. From Lewis, *Mechanism and Graphic Registration*, p. 182.
• “It is extremely questionable if anything material is to be gained by the use of this method.”
• “The chief practical discovery of our time, the almost specific action of digitalis in cases of gross irregularity of the heart was accomplished . . . long before we knew this discovery to be due to fibrillation. And the discovery that it is due to auricular fibrillation has been responsible for little or no change in the treatment of the disease by digitalis or by quinidine.”
“The information that is obtained from a man handling the patient is entirely lost in taking electrocardiograms. Taking a tracing of a pulse, radial or jugular, calls attention to features which the naked eye can recognize. If medicine is to make any progress at all, the symptoms of disease must be detected by the unaided senses.”
• “The chief weapons of the practitioner are to-day and will remain his own unaided senses . . . Believe me, you will never see the day when the medical practitioner will rightly interpret delicate records of the heart beat, but you will see the day when he will know the chief things which these records have taught us and how he may utilize that knowledge in his daily work.”
Histories of The Chicago Literary Club
HEART STATION — UNIVERSITY OF MICHIGAN HOSPITAL
ANN ARBOR, MICHIGAN

A. Storage battery room
B. Main switchboard
C. Galvanometer room
D. Technician's workroom
E. Dark room with film storage room adjoining
F. Secretary's office
G. Experimental laboratory
H. Examining room
J. Sound-proof room
K. Director's office
Fig. 1.—Photographs of the heart showing the points from which direct leads were taken and the times after the beginning of R of Lead II at which activity arrived at these points.
More tracings

FIG. 3.—Electrocardiograms of the three carefully made take intermittently showing the various stages in the heart's position, induced by direct electrical stimulation of the pacemaker in the atrial septum of the heart. The top curve is lead I, the others are leads II and III.
Scheme for direct measurement of potentials.

\[ r = 5000 \, \text{ohms} \]

Single stage D.C. amplifier

Galy.
Images of Diego Rivera mural
"The History of Cardiology,
Panel 1 1943-1944 Fresco 6 x
4.05 m Tlalpan, Ibero
American University
Auditorium, Mexico City”
removed