



## HORIZONTAL KYMOGRAPH, 1916

*Maker, source:* Pirard et Coeurdevache, Constructerus, 7 rue Blainville, Paris

*Year made:* 1916

*l x w x h;* 62 x 22 x 42 cm

"An instrument used to record the temporal variations of any physiological or muscular process; it consists essentially of a revolving drum, bearing a record sheet (usually of smoked paper) on which a stylus or penpoint travels to and fro at right angles to the motion of the cylinder; the drum is rotated by a

mechanism at a presumably uniform rate, or the rate is indicated by a time marker which registers on the sheet. In some types the record sheet surrounds the drum, which rotates spirally, to allow a continuous record at different levels of the sheet; in other cases the record sheet is a long roll." Warren (1934).

Physiologists first used Kymographs for recording blood pressure. Experimental psychologists adopted the kymograph as an instrument for recording various time-related events: response times, stimulus presentations, muscle exertion and tuning fork vibrations. The three models on display in this exhibition were mechanically driven and a "governor" regulated the speed of the brass drum.

The preparation of the smoked paper, an art in itself, consisted of placing a blank sheet of paper over a stand and exposing it to petroleum lantern fumes. The experimenter then wrapped the smoked paper around the drum ready for the touch of the inscriber. The [signal marker](#) would contact the drum as it rotated, leaving a line record. Following the recording, the experimenter varnished the paper for permanent keeping. (Titchener, 1918)

Two of August Kirschmann's students at U of T refer directly to the one of the earliest Horizontal Kymographs used in the laboratory, in a study on the estimation of time intervals. (Shaw and Wrinch, 1900)

*In the Literature:*

Shaw, M. A. And Wrinch, F. S. (1900) A Contribution to the Psychology of Time, *University of Toronto Studies, Psychological Series*, p. 125, Toronto: Librarian for the University of Toronto.

Titchener, (1918), *Instructor's Manual*, Vol. 1, pp. 172-176.