

MOSSO ERGOGRAPH

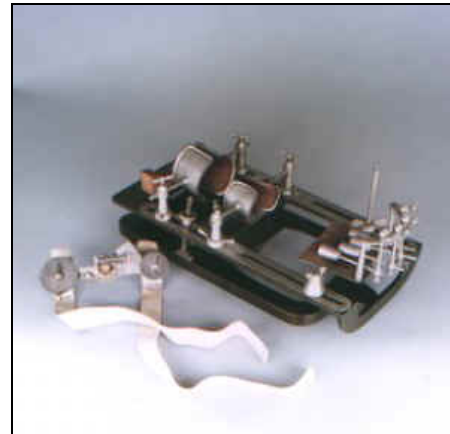
Frame, *maker*: Pirard & Coeurdevache, Paris

Pulley system with marker for kymograph, *maker*: unknown

Arthrodynamometre du Prof. Amar, *maker*: Pirard & Coeurdevache, Constructeurs, 7 rue Plainville, Paris.

Year made, acquired: c. 1920

Arm restrainer: $l \times w \times h$; 50 x 24 x 11 cm;
dynamometer, 10 cm long
Base of pulley system: 50 x 11 cm



"An instrument for measuring the amount of muscular contraction, usually in experiments on work and fatigue; it ordinarily consists of some device for immobilizing all parts of a member except the part to be measured, and for recording the latter's movements. E.g. forearm and all but middle finger strapped on horizontal board; the free finger by flexion and extension operates against resistance, such as is afforded by a hanging weight, records of its excursions being made typically on a kymograph." Warren (1934).



Experimenters used the Ergograph for a range of investigations. First they measured the physiological measures of muscular contraction, fatigue, endurance, strength and physical capacity or endurance. These tests were carried out under varying conditions, e.g. with stimulants, narcotics, poisons, exercise and special diets. In addition, experimenters measured the effects of mental tasks on physical endurance.

The Ergograph, primarily an instrument for measuring muscle exertion, was seen as a window into mental activity. Guy Whipple (1924) claimed that the relation between the mental and physical domains, even though elusive and still obscure, was attainable with more refined methods and more elaborate ergographs. As evidence, he cited the quick development of Mosso's "simple invention" to the more complicated structure of Bergström; Whipple makes the interesting assumption that technological intricacy leads to improved accuracy.

In the Literature:

Bergström, J. A. (1903). A New Type of Ergograph, with a Discussion of Ergographic Experimentation, *American Journal of Psychology*. Vol. 14: 510-40, (253-258).

Ellis, A. C. and Shipe, M. (1903). A Study of the Accuracy of the Present Methods of Testing Fatigue. *American Journal of Psychology*. Vol. 14: 496-509.

Mosso, Angelo. (1906). *Fatigue*, Translated into English by Margaret and W. B. Drummand, London: Swan.

Whipple, Guy Montrose (1924). *Manual of Mental and Physical Tests. Simpler Processes*, vol. 1. Baltimore: Warick & York. pp. 114-115.