

**THE SPHYGMOGRAPH: ITS  
HISTORY AND USE AS  
AN AID TO DIAGNOSIS  
IN ORDINARY PRACTICE**

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The sphygmograph: its history and use as an aid to diagnosis in ordinary practice by R. E. Dudgeon

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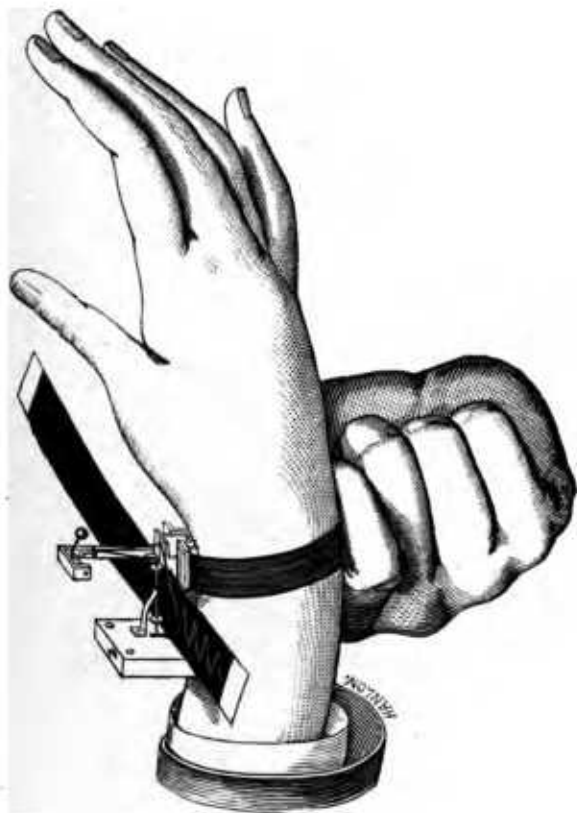
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**R. E. DUDGEON**

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Mode of applying Dr. Dodgeon's Sphygmograph.

THE  
SPHYGMOGRAPH:

*ITS HISTORY AND USE AS AN AID TO  
DIAGNOSIS IN ORDINARY PRACTICE.*

BY  
R. E. DUDGEON, M.D.



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## P R E F A C E.

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THE study of the pulse by means of graphic representations of the arterial movements has received a new impulse by the invention of a sphygmograph adapted for daily use in ordinary medical practice. I have frequently been asked to give some information for beginners on the subject of pulse-writing, and especially some fuller instruction on the use of the instrument I introduced to the notice of the medical profession some eighteen months ago, than are to be found in the printed directions given with the instrument.

In the following pages I have endeavoured to comply with this desire for further information. I do not intend in this little work to do more than its title implies: viz., to give a short account of the history of pulse-writing

and of the instruments invented for the purpose, and to indicate some of the uses of sphygmography in ordinary practice. I have also given full details respecting the principle and mode of employing my pocket sphygmograph, which obtained a first-class award at the International Medical and Sanitary Exhibition in 1881, and has received numerous commendatory notices from the medical press of this and other countries.

All the tracings given in the book were made with my instrument.

R. E. D.

MONTAGU SQUARE, LONDON.

1st March, 1882.



## THE SPHYGMOGRAPH.



SINCE the attention of physicians was first directed to arterial pulsations, some three centuries before our era, by the Alexandrian physician Herophilus—that robust vivisector\* who is said to have dissected alive six

\* *‘Longeque optime fecisse Herophilum et Erasistratum, qui nocentes homines a regibus ex carcere acceptos, vivos incidierint,’* says Celsus. From a vivisectionist point of view it is perhaps disappointing to think that the only physiological discovery Herophilus made, from all these hundreds of human vivisections, was that arteries pulsated, but he did not ascertain what the arteries contained; and that Erasistratus, his contemporary and rival human vivisector, announced as the result of his ‘physiological experiments’ on living men that the arteries contained vital spirits—an erroneous opinion that prevailed even down to Harvey’s time, in spite of the convincing experiment of Galen, which proved that the arteries contained blood only. The contemplation of this infinitesimal outcome of these vast experiments, without anæsthetics, on living men should convince



hundred human beings, and whose name is gibbeted for ever at the place where four venous highways meet, known to anatomical students as the 'torcular Herophili'—through all the pre-scientific ages of medical practice, ere yet mechanical ingenuity had been pressed into the service of the art of diagnosis, much more importance was attached to the observation of the pulse than in recent times. Indeed, the physician of old made his diagnosis chiefly by observation of the pulse and tongue. But as the tongue could be rapidly inspected, and any one could judge of its foulness or cleanness as well as himself, he concentrated his attention mainly on the pulse, in the feeling of which there was always scope

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the anti-vivisectionists that they are unduly impatient when they object to the smallness of the results of the paltry experiments of modern physiologists on dogs, rabbits, frogs, rats, mice, and 'such small deer,' under chloroform. Every unprejudiced mind must allow that the discovery that human beings possess a pulse was cheaply purchased at the cost of six hundred human vivisections, for this discovery has been of incalculable use to the medical profession; though some cavillers might object that it might have been equally well made by applying the finger to the wrist; but then there are always unreasonable people to find fault with the methods of men of science.

for affecting the possession of peculiar skill and insight. To the uninitiated, who regarded the doctor as the depositary of occult knowledge, and who received his dicta as though they were oracles, there was something very imposing in his method of pulse-palpation. The fingers of the right hand daintily grasping the patient's wrist, while the doctor's eyes were riveted on the loud-ticking gold chronometer he held in his left hand, his head gravely nodding the while synchronously with the arterial pulsations—all this formed a picture calculated to inspire beholders with reverence and awe.

The pulse being the chief guide to diagnosis, its varieties of pace and strength were ascertained by the *tactus eruditus*, and carefully distinguished by special names. There was the *pulsus frequens* and the *pulsus rarus*, which by some subtle sense, lost to the moderns, were differentiated from the *pulsus celer* and *pulsus tardus*. There were, besides, the *pulsus magnus* and *pulsus parvus*, the *pulsus durus* and *pulsus mollis*, the *pulsus debilis*, *acutus*, *elatus*, *deficiens*, *celerrimus*,

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