

TEL. 507 CENTRAL,  
HOURS 9-11 A.M.

61 WALTER ROAD,

SWANSEA.

Wales

Sep. 6. 1916

Dr. Dayton Clarence Miller

Dear Sir

I have just finished reading your  
"The Science of Musical Sounds", which was  
very interesting, especially so as it was  
the means by which three of us arrived  
at something like an idea of ~~the~~ what  
the appreciation of music consists.

My two friends who have been for some <sup>time</sup>  
discussing this interesting subject are  
Dr. Vaughan Thomas (the chief musician of Wales)  
& Mr. Kirkman the lecturer on Physics at  
the College.

We conclude that there is both a  
Science & an art of music, of which a  
true musician should have a full  
knowledge associated with a keen appreciation  
of the higher harmonics

An analogy put forward was the  
science of brewing, on the part of the brewer

SWANSEA.  
67 WALTER ROAD.

MAILED 508 JAN  
Tel. 505 CENTRAL  
Hours 8-11 AM

and the art of 'drinking the beer' by  
the 'emotional' public.

I dare not push the analogy further  
by suggesting that the diminishing of judgement  
by means of alcohol increases the  
appreciation of 'music' in a wholesale  
manner.

My chief object in writing is  
to ask your help in a matter which  
I am trying to work up in connection  
with "Heart Sounds".

I have already drawn attention to  
the fact that whilst medical authorities consider  
the first sound of the heart to be due to  
the contraction of the heart muscle, physiologists  
agree that a muscle when contracting  
produces no sound!

I have <sup>recently</sup> sent for publication an article  
on the subject to the American Medical Assoc<sup>n</sup>  
at 535 North Dearborn St, Chicago.

The enclosed memo. may give you  
some idea of what I am getting at.

I suggest that the fluid in the pericardium

TEL. 507 CENTRAL,  
HOURS 9-11 A.M.

2

61 WALTER ROAD,  
SWANSEA.

is responsible for the sounds heard by the stethoscope, and also for the curves produced by the cardiograph.

The cardiograph is a pseudo-scientific instrument which has recently attracted to medical men.

The curves are formed by the same impulses as are conducted up the binaural stethoscope.

The size of the receiver over the heart is however fixed in a very arbitrary fashion, and I have shown that if one has a 1, 2 & 3 inch diameter receiver the form of the curves varies, both as regards shape & relation to the pulse.

A slight variation of the pressure whereby the receiver is held to the chest makes a difference in the curve.

I enclose some curves which you may be induced to analyze

61 WALTER ROAD,  
SWANSEA.

TELEPHONE CENTRAL  
HOURS 8 AM - 8 PM

in the result of which analysis I should  
be very interested.

They were taken from a lad aged 18 who  
had heart trouble - enlargement of cardiac  
dilatation, & modified sounds

I hope you will pardon <sup>these</sup>  
writing of such a long letter, from

Yours very truly

L. Arthur Stephens.