TECHNICAL REPORT OF FINAL TESTS UPON DR. ABRAMS' OSCILLOCLAST

Conducted in the

BURNETT-TIMKEN RESEARCH LABORATORY

At Alpine, New Jersey

By DR. J. C. BURNETT

Delivered before the American Electronic Research Association at its Convention in Chicago, September 22, 1924

It may be of interest to you to know my reason for conducting tests on the Abrams Oscilloclast, the scientific demonstration of which is to follow:

In December, 1921, I was about to leave my home to keep an appointment and found that the battery of my Crane-Simplex had become discharged in some manner and therefore would not turn over the motor in order to start the car. Because of it being a very heavy car and having tremendous cylinder compression, it was a two man's job to turn it over. I requested the chauffeur to start the car and he refused, stating that he would quit before he would start the car by hand. In order to show the chauffeur that he should come up to an emergency, I started the car but at the same time I paralyzed my right arm and shoulder so that the arm was practically useless for three months for anything except lifting something very light as it was unable to carry any appreciable weight.

All kinds and forms of treatment were applied in order to relieve the condition, but to no avail. During the same month this happened I was fortunate to meet Dr. Mather Thomson of London and to hear a lecture given by him concerning ERA. This lecture was very convincing if true. The personality of the man, his earnestness and conviction assured me, that he at least believed what he was saying. In speaking about conditions similar to my shoulder, I was informed that it was a very easy matter to overcome this by ERA.

It was impossible for me to get this treatment at that time, but I began to put my house in order and arrange my affairs so that I could take advantage of this treatment which was then given in

San Francisco. Being interested in knowing what I had done to my shoulder, as no X-ray was able to reveal any material change in the tissues by any shadows or other indictaions, I immediately proceeded to see what kind of a diagnosis the ERA would give of the condition in the shoulder. They took a few drops of my blood, and the answer came back that it was 5 ohms of tuberculosis of the right shoulder. I laughed at the idea as my lungs were perfect from a tubercular standpoint, showing no tubercles of any kind; but I determined to give them a chance to show me whether I could be benefited.

Consequently, I took four hours' treatment one day and it might be well to mention that up to that time my arm was not able to be used except to support itself. I could move it around but it could sustain only its own weight. The morning after I had received the four hours' treatment, the Doctor asked me how my arm was. My attention having been drawn to it, I began to investigate to see if there was any benefit. To my utter surprise I was able to do anything with that arm that I wanted to, the trouble having disappeared over night. I could not believe that after all other systems of treatment had failed, a four-hour treatment would absolutely eliminate the condition. The results showed, however, that the arm was perfectly well, and up to the present it has never returned to its old condition.

I was so interested in what had been effected in my shoulder that I matriculated for the course. After attending the course for two months I decided that I would try to investiage the fundamental principles underlying the theory. About six months later I began the study of the fundamentals by starting a laboratory for the purpose of beginning at the most approachable angle of the theory, namely, from the treatment end. Before I left San Francisco after my course I had thoroughly decided in my mind the line of procedure which would be necessary to follow in order to bring about the results which I am about to give you.

My confidence in what I had conceived to be the fundamental truth is now able to be demonstrated, and I consider that if a doctor is thoroughly versed in the correct methods of diagnosis and treatment by ERA, results will be more positive than by any other form of treatment yet discovered or used for the relief of suffering humanity.

DR. J. C. BURNETT,
September 22, 1924.

The Following are the Conditions Under Which the Final Series of Tests Were Carried Out Upon Dr. Albert Abrams' Oscilloclast, With Summary of the Results Obtained.

The Oscilloclast is an electro mechanical device for creating an intermittent series of electro magnetic oscillations of damped characteristics.

The Oscilloclast is essentially designed to operate upon a 3 to 6 volt direct current source of supply, as may be provided from a Storage Battery.

The contact making and breaking device is caused to function through a pair of electro magnets in conjunction with a gravitational mechanism operating arrangement.

The electro magnets constitute one continuous comparatively high resistance winding of many turns, but portion of the winding may be shunted through means of a special electrical contact making and breaking device, and therefore, this means when the gravity controlled electromagnetic armature is set in motion which displaces it in the magnetic field the making and breaking shunting device will continue to keep the gravity mechanism in operation.

The speed at which the contact device will make and break depends upon the voltage applied to the electro magnets and this, of course, in turn increases or decreases the electric current flow and the time element controlling the electro magnetic impulses which are created on account of the opening and closing of the electro magnetic shunt circuit.

There is a considerable amount of distributed capacity in the arrangement of the electrical circuits within the Oscilloclast and this provides a capacitance in conjunction with the inductance effect from the electro magnetic circuit furnishing a train of damped electro magnetic oscillations each time the contact device breaks the shunt circuit.

The normal interruptions of the contact breaking system is approximately 120 per minute, therefore, the Oscilloclast with normal speed creates under normal conditions, 120 wave trains per minute.

While the electro magnetic windings are made for 3 to 6 volt source of current supply with which the device functions perfectly requiring an average of 1 ampere, the electrical circuits are so arranged that a Rheostat of 80 to 100 ohms with a capacity up to 2 amperes may be inserted in series with the electric supply circuit, so that the current supply may be increased to as much as 125 volts, under which condition the equipment will perform on a regular commercial lighting system.

On the Oscilloclast tested the magnetic circuits were made with solid iron cores which are essentially suitable for direct current operation. The device may be operated, however, with alternating current of 100 to 120 volts at 60 cycles by using less resistance in series with the supply circuit in order to overcome the reactance in the electro magnetic circuit when used with 60 cycle alternating current.

Because of the fact that commercial electric lighting systems of either Alternating or Direct current type generally have one leg of the system grounded, or in the case of an ungrounded system there being considerable capacitance introduced which would have an influence upon the readings and the measurements of the forces emanating from the Oscilloclast it was thought best to conduct the tests with a 6 Volt Storage Battery as the source of energy supply and a small adjustable Rheostat was connected in series with the battery and the Oscilloclast so that the wave trains could be maintained at a figure of 120 per minute.

The energy from the Oscilloclast is transmitted through a flexible insulated copper cable to a special combined resistance and inductance regulating unit in three sections, each section being provided with a dial switch and twelve contact points, so arranged that the treatment terminal cord may have included in series with it resistance from 0 to 1000 ohms in exactly 100 ohm steps. This combined resistance and inductance device is introduced in series with the Oscilloclast and the treatment electrode for the purpose of modifying the intensity of the energy delivered to the body at the treatment electrode.

When the Oscilloclast came under our observation, it was difficult to prove the variations in the energy at the treatment electrode for different amounts of resistance in series with its single electrode because the first indication of energy delivered at the treatment electrode was of an electrostatic nature due to the 110 volt potential of the electric lighting circuit which was of the 3 wire type with grounded neutral. The presence of the electrostatic capacity was indicated upon an extremely sensitive mirror galvanometer connected in series with the treatment electrode and the body. This energy was of so low intensity that the ohmic resistance factor in the controlling rheostat did not have sufficient influence to alter the reading of the galvanometer and because of the fact that the electrostatic charge in this instance is of a direct current nature the inductance factor in the controlling rheostat did not become effective.

It was understood and considered that where a varying electro magnetic field is present there is inductance and capacitance, and under the circumstances, energy of a different order must be emanated and that such energy must be of an electro magnetic wave nature and that this energy would be subject to control by the inductive factor of the rheostat control in series with the treatment electrode.

It was realized that the energy must be very small because the input energy represents less than 2 Watts and the electrical efficiency of the electro magnetic and make and break device could not possible be over 30 to 50%, so that this would leave a very small amount of power at the radiating terminal of the Oscilloclast. Considering the total radiated energy within the Oscilloclast to be between ½ and 1 Watt, and further considering that the frequency of the radiated oscillation would be on the order representing a wave length of under 10 meters, the factor of absorption due to inductance and capacitance in leads and terminals will become very great so that the energy which was to be indicated and measured was understood to be exceedingly small.

The preliminary calculations proved this to be a fact as the tests progressed and it was not until extremely sensitive high frequency indicating and recording devices had been developed especially for this purpose that the nature and magnitude of the energy emanating from the Oscilloclast were finally determined.

On account of the small energy radiation at the Oscilloclast a complete conducting system is provided between the Oscilloclast and the Patient and this combination, therefore, represents a system of wired Wireless, as it is commonly called, wherein the Oscilloclast represents the oscillator, the inductance rheostat the modulator, the treatment electrode with its terminal connection the antenna, and the human body would represent the Receiver.

After analyzing the experiments and tests conducted, the following conclusions have been arrived at:

1—The Oscilloclast generates electro magnetic wave trains of practically constant initial frequency and amplitude.

2—The frequency and the amplitude of each wave train are subject to variation during the period of each wave train, but the mean average results are practically uniform for an indefinite period of operation as long as the Oscilloclast and the supply circuit remain constant in operation.

3—The resistance unit while possessing considerable ohmic resistance per step may be considered as but a small factor in controlling the energy emanation, but the resistance units being inductively wound possess very high self induction when operating upon frequencies of the order under consideration, therefore, it was expected and found that the electro magnetic wave emanation at the treatment electrode is under perfect control through the medium of the inductance value in the Rheostat control unit.

4—The wave length and frequency of the emanations at the treatment electrode do not seem to be influenced noticeably by reason of variations in the amount of either inductance or resistance in series with the treatment electrode under normal operating conditions.

5—Readings from instruments coupled in the treatment electrode circuit prove that the value of the energy at the treatment electrode is subject to variation in accordance with the amount of inductance included in the circuit and that these values follow the square law, the difference in the readings becoming smaller and smaller per unit inductance cut into the circuit.

6—The most sensitive direct reading instrument obtainable during the first period of investigation gave a comparatively small deflection but sufficient to act as a guide as to the comparative amplitude for different amounts of inductance in series with the treatment electrode. Later on a much more sensitive instrument was developed, the moving element of which is placed in the beam of light from a powerful projector arc lamp, so that the opaque moving part of the measuring instrument could be made to move sideways in the beam of light which was concentrated upon a special moving plate camera under absolute time control as to the motion of the photographic plate. This arrangement allows the movable element of the electric measuring instrument to cast a shadow upon the photographic plate and therefore, when the plate is moving relative to the light spot with the shadow on it a line will be indicated on the plate representing the position of the indicator on the instrument. The type of instrument used could, on account of this arrangement, be made extremely sensitive so that instead of a motion of a quarter of an inch the wave force of the Abrams' Oscilloclast could be made to deflect the indicator from ½ inch upwards, depending upon the amount of inductance in series with the electrode. Furthermore, an

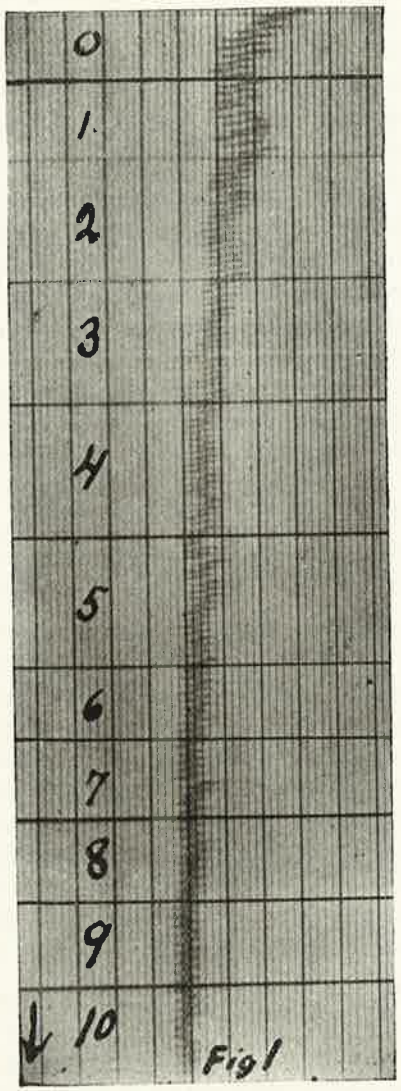


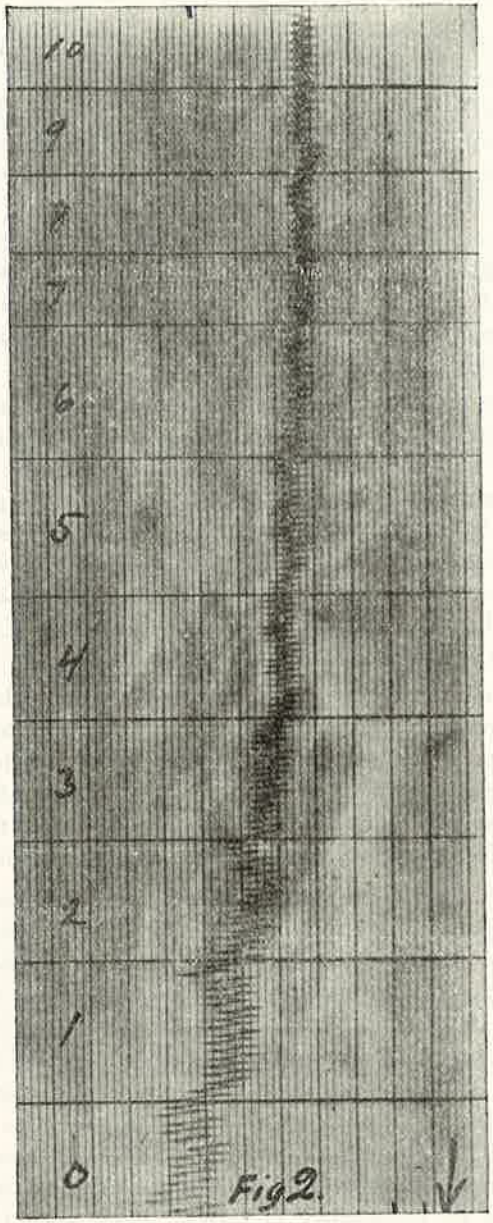
Fig 1

ordinary instrument would not permit its indicator to move sufficiently fast to indicate the actual number of wave trains nor the sustaining power of each impulse, but with the Photographic Indicator the amplitude of every single wave train and its sustaining power is clearly indicated because the photographic plate being in motion at a definite pre-arranged speed opens up the curve so that each impulse or wave train can be easily distinguished as indicated in the accompanying photograph, figure 1.

7—Photograph Figure 1 illustrates the variations in the energy at the treatment electrode with the indicating instrument inductively coupled with air space intervening between the treatment electrode and the instrument terminals. In the illustration the photographic plate was moving downwards beginning at the bottom with an inductive value of 10 in series with the treatment electrode. As the plate dropped down the inductance was changed to 9 with very small effect. Then the inductance was decreased to 8 and 7 with very little variation. With the inductance value at 6 the energy begins to increase so that with less inductance 5, 4, 3, 2, and 1, there is a considerable difference and when jumping from 1 to no inductance represented by "0" the energy increased considerably.

8—Figure 2 is a photographic reproduction of the energy curve taken under the same conditions as Figure 1, excepting that in this instance the curve was started at the bottom with no inductance in series and additional inductance was introduced step by step as the plate dropped and for this test the recording instrument was coupled directly in series with the antenna or treatment electrode which accounts for the somewhat greater amplitude recorded. This is readily understood because of the fact that in Figure 1 the energy had to go through space from the treatment electode to the instrument whereas in Figure 2 there is a direct electric coupling.

9—It will also be noted in referring to the photographic reproductions of the energy curve that there are times when the impulses are not absolutely uniform and consistent for the different steps and in explanation it may be stated that these variations are due to minute variations at the instant of break at the electric contacts on the Oscillator, but if the curve for any one of the inductance steps had been allowed to run an appreciable time instead of ten seconds or so, this would have



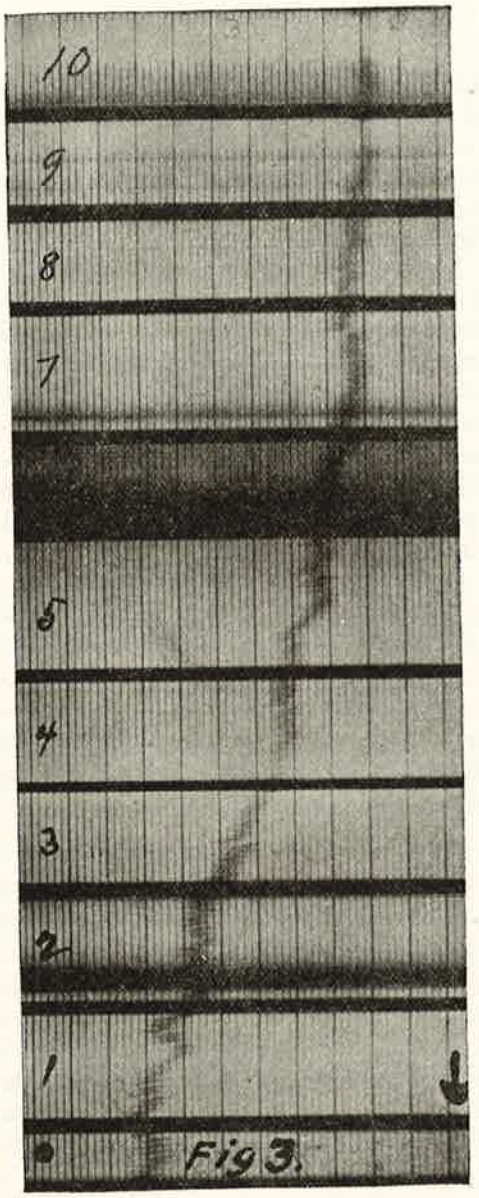
compensated for itself and then a much longer curve would have been the result with uniformly increasing readings.

10—Having established the presence of the electro magnetic force at the treatment electrode it became necessary to measure the wave length and in order to accomplish this with the extremely small energy available, it was necessary to design and construct a most sensitive Wave Meter operating upon an entirely new principle employing a very small triple electrode valve and a sensitive oscillating and tuning device arranged for tuning on wave lengths from 10 meters to considerably below that value. The point of resonance was determined from the reading obtained upon a very sensitive Galvanometer connected in the plate circuit of the oscillating valve.

The wave meter and the Galvanometer system had to be designed and arranged to oscillate with extremely small amount of energy and to give a positive indication of any variation in both amplitude and frequency of the electro magnetic waves received by it. On account of the very short wave lengths transmitted by the Oscilloclast it was necessary to build a Wave Meter with minimum inductance and capacitance and to still allow sufficient reserve adjustable capacitance to determine the point of resonance.

The valve circuits and arrangements were such that when the Oscillator was out of tune there would be a minimum amount of current flowing in the plate circuit and therefore, the Galvanometer would give the lowest e ding, and this would also be the case when the Oscillator was tuned to the incoming Waves when these were of extremely low amplitude.

11—Figure 3 is a photographic representation of the result showing the amplitude variation of the energy emanating from the treatment electrode but amplified by reason of the amplification constant of the oscillating valve on the wave meter which operated the special Recording Instrument used in producing the secondary curve, photographically illustrated in Figure 3. A Study of this curve indicates a practically normal square law increase in the energy delivery proportional to the amount of inductance connected in series with the treatment electrode. Beginning at the bottom of Figure 3 we see maximum amplitude with no inductance in series. Then with 1 inductance unit or 100 ohms as it is called, the amplitude drops and continues to drop for each additional inductance unit cut in series



with the treatment electrode until the top of the photograph where 10 inductance units or 1000 ohms had been introduced in series with the electrode when the energy is shown to be the lowest.

During the tests and experiments many different Oscillators of varying range had to be designed and tried because of the very low energy emanation and the uncertainty as to the frequency delivered, but after the point of resonance had been found then the question of determining the wave length had to be settled.

12—When all possible external influences had been compensated for and the point of resonance could be brought about at will at any time, the characteristics together with the inductance and capacitance of the Oscillator were calculated and in that manner the frequency of the Oscillator was determined at the point of resonance and the result was a definite wave length, considerably below 10 meters which represents the mean wave length of the emanations from the treatment electrode of the Abrams' Oscilloclast. (Wave length — 7.56 meters.)

13—Constancy of Oscillations. It was found that where the Oscilloclast is operated from a direct current electric lighting system, the Oscillations were quite uniform and constant, but there was a tendency to a variation in the frequency and wave length due to variation in the capacitance and inductance of the electric supply system, although this variation would not represent more than about 10% widening of the wave length band.

14—With 110 volt 60 cycle alternating current applied, the results at the treatment electrode were not so uniform, the amplitude varying to a large extent and sometimes becoming cumulative increasing the amplitude and then again varying considerably below normal. It was found that this variation was due to the fact that the make and break device on the Oscilloclast would sometimes pick the energy supply on the peak of a wave and at other times at zero or any other point of the 60 cycle wave and sometimes the impressed potential from the supply circuit would be positive and other times negative, so that it is not wise to use the Oscilloclast with alternating current supply because it will then be impossible to determine the mean value of the treatment current and therefore, it seems impossible to

depend upon the oscillations from the Oscilloclast to give any definite value for the different contact points on the inductive resistance.

In conclusion it may be stated that as a unit the Oscilloclast is remarkably constant, introducing fixed trains of electro magnetic oscillations which are apparently uninfluenced by external inductance and capacitance effects of other frequencies than that produced by the Oscilloclast, but great care must be exercised in maintaining the make and break contacts in absolutely uniform operative condition as otherwise the amplitude of the energy could not be depended upon to remain constant. Mechanically the device is very satisfactory and should last many years and when operated from a 6 Volt Storage Battery with suitable rheostat in series for controlling the number of wave trains per minute the best and most constant results will be obtained. Notwithstanding all precautions which can be taken an Indicating Instrument should be used in the circuit with the treatment electrode so that the Doctor will know when uniform and pre-determined energy quanta is obtained. It is readily understood that if for a fixed condition a certain energy amplitude is required for a given length of time, results can be obtained only when these factors remain constant. If they should vary below normal it will take much longer to effect a treatment, and if above normal it will consequently take less time. Considering the foregoing when Alternating current is used it is impossible to determine these values, and this variation may account for the great discrepancy in the result when using the Oscilloclast on a specified contact button for a given disease.

Before closing it may be well to state that with all electromagnetic Oscillators, harmonics or octaves of the fundamental frequency or wave length are obtained, and this may explain the fact as reported that reactions are obtained or neutralized on other contact points than the ones specified for a given disease, but it is evident that the harmonics of the fundamental frequency are of considerably lower amplitude and should, therefore, theoretically, have less treatment value, but that appears to be a point not yet settled and up to this time has not been considered in practice in our experiments.

The foregoing tests and experiments refer to the Oscilloclast strictly as a combined mechanical and electrical device for creating and maintaining wave trains of practically constant frequency with means for regulating the amplitude of the wave force without any

reference whatever to the treatment value from such waves when applied to the human body in the case of disease.

Theoretical Conclusion

The Abrams Oscilloclast delivers practically a constant wave length and frequency, due to fixed capacitance and inductance characteristics of the Oscilloclast. In consideration of this fact and also on account of the fact that inductance in series with the energy output varies the amplitude of the wave and also the energy, I wish to state that I consider all disease not as disease but as a matter of certain stages of lowered resistance. It would be well to speak of different diseases not from the standpoint of disease but from the standpoint of lowered resistance, and the percentage of lowered resistance would determine the type of disease to be expected.

The capacity of the body as a whole is dependent upon two factors, the size of the body and the integrity of the insulating colloidal substance surrounding the cell, maintaining the cell at one hundred per cent. efficiency if the insulation is one hundred per cent. effective. If the body is in resonance with disease, owing to its stage of lowered resistance, the disease manifests itself through the particular stratum of lowered resistance in resonance with that particular disease.

Perfect health is the manifestation of high resistance within the body, in resonance with no disease and immune to all diseases.