Works by Albert Abrams,

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Physico-Clinical Medicine

Vol. 1

JUNE, 1917

No. 4

All the subject-matter of this Journal refers to the original research work of Dr. Albert Abrams. Citations from other sources will be duly accredited. "Spondylotherapy" and "New Concepts in Diagnosis and Treatment" constitute the arche-type of this Journal and S, in parenthesis, followed by a number, refers to the page in the former and N. C., to the latter work where extended consideration of the subject cited will be found. J, refers to a previous number of this Journal. The motive of this Journal is to replace the cell doctrine by the Electron theory. Vital phenomena are dynamic and the actions of organisms should be regarded as processes and not as structures. Exclusivism is excluded insomuch as all sciences are embraced in practical medicine and diagnosis must invoke physical, biological and chemical methods. All problems in medicine not in accord with the progress made in physical science are doomed to perish.

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THE HAHNEMANNIAN DOCTRINE OF ATTENUATION

Attention is directed to this doctrine from an electronic viewpoint. The creation of a sect in medicine is often a deplorable necessity to emphasize the delinquencies of conventional and official methods. There is some good in all things. My opinion of homeopathy, like many medical men, was based on the diatribe of Holmes, "Homeopathy and Its Kindred Delusions." The standard employed by Holmes, as a basis for his criticism, was the medical theories of his day which are now shattered and swept into the discard.

It is assumed that Hahnemann conceived disease as a perversion of the spiritual vital powers and anything spiritual not being combatable by material remedies he turned to a spiritual power bound up in plants and liberated by dilution. The corollary of the latter conception was, "the efficiency of medicinal substances reduced to a wonderful degree of minuteness or dilution." Hahnemann, lived at a time when the now exploded theory of vitalism dominated medical thought and he no doubt employed it as a vehicle for emphasizing this doctrine. The historic development of therapeutics is identified with this theocratic philosophy.

By aid of the "Reflexes of Abrams," it can be shown that *radiation* is a universal property of matter and that the reflexes in question surpass any instrument yet devised by man in the detection and measurement of radioactivity.

In 1895, Roentgen's discovery of a new type of ray stimulated Becquer-

el in the following year to investigate phosphorescence and he found that uranium salts were radioactive. The methods for recognizing radiations are: Effects on a photographic plate, exciting visible fluorescence and ionization of the air. In the latter method a gold leaf electroscope is employed. Note how comparatively insensitive is the photographic method when compared to a human reflex for the retina is approximately 3000 times as sensitive as the most rapid photographic plate. In the employment of a reflex, the most primitive and sensitive substance, bioplasmic matter is used for exhibiting the phenomena of radioactivity.

With the relatively crude methods employed by physicists, it is not surprising to learn that practically only 36 bodies are known to be radioactive and all these contain either uranium or thorium or a mixture of both.

It is an established fact that many elements at the moment of their formation (nascent state) exhibit the most pronounced reactivity which is absent in their ordinary state. M. Perrin, in studying the Brownian movements, found that the mean kinetic energy was independent of the mass. In fact, the extraordinary movements of the smallest visible particles was in marked contrast with the small and sluggish movements of the large particles. It is practically impossible to conceive the limit of the subdivision of matter. An idea of the smallness of an electric charge in matter was referred to by Prof. Millikan, in a recent lecture here at the University of California. It was he who first isolated and weighed electrons. He said that if the two and a half million people who live in Chicago were to begin to count, and count as fast as they could day and night without stop-ping to eat or sleep or die, for 20,000 years, then, if the amount all had counted were added up, the total would be the number of electrons passing through an ordinary light filament in one second !

Measurements recently made by the writer with the biodynamometer disclose the almost unbelievable fact that the mechanic subdivision of drugs or their dilution will augment their radioactive potency. This the writer believes, is the first positive experimental evidence in corroboration of the latter contention. His primary endeavor, he confesses, was to disprove the fallacy of infinitesimal dosage. The following figures are cited:

Drug Employed	Radioactive Potentiality
ACONITE (Tincture)	
THE SAME TINCT. (diluted 50	times) 1 ohm and 9/25 of an ohm.
THE SAME TINCT. (diluted 100	times) 3 ohms and 13/25 of an ohm
OALOMEL (1 grain)	
CALOMEL (gr. 1/100)	
CALOMEL (gr. 1/200)	
BELLADONNA (one-millionth part of the	

foregoing and known in potency as 6x) 12 ohms and 11/25 of an ohm

NOTE that when the aconite was diluted 100 times, the radioactive potentiality was increased 78 times whereas a dilution of 50, was only increased 24 times. The potentiality of calomel (gr. 1/100) was increased 76 times and 1/200 gr. of the same drug was increased 110 times. Beliadonna diluted to the 6x was increased 303 times. All the measurements were controlled by specific reflexes peculiar to each medicament. To exclude the dilute as a factor in the measure-urements showing augmented potentiality, the same quantity of alcohol (78 per cent) only yields a potential reaction of 3/25 of an ohm.

Therapeutic action predicates a knowledge of the cell, the chemic changes of which conduce to energy transformations. Therefore, the phenomena of the cell are invariably, associated with pshysico-chemic transformations. With our crude methods of identifying the physiologic action of drugs, we are constrained to accept only that which is obvious and must ignore those recondite phenomena associated with cure. The latter is the exclusive prerogative of Nature and the physician's therapeutic acumen is limited to assisting Nature and to know what not to do which is often more important than doing. The physilogic action, hence the prestige of the purgative and the truth of the aphorism, Qui bene purgat, bene curat. The activity of the purgative is identified with a reaction. In the same sense, if an individual removes a fly from his face, the musca domestica could be regarded as a brachial stimulant.

The Latinism, "Naturam morborum curationes ostendunt," is still applicable and emphasizes the fact that the crucial test for medicamentous action is in clinical results. The electron theory so seductive in its explanation of remedial action is yet undeveloped. It fails to explain the actions of non-electrolytes and is incapable of fully explaining all the effects of electrolytes.

Radioactivity suggests a more alluring field in the explanation of pharmaco dynamics. It is only since 1896 that the distinct experimental science of radioactivity has been developed. Succeeding the inception of radiotherapy, its indiscriminate employment only yielded disastrous results until now, properly diluted, the use of the rays are achieving phenomenal results. Our knowledge of the latter, however, is still limited to their surface action.

All electrons are characterized by the uniformity of vibrations (N. C. 48 and 204) and the writer has succeeded in determining the vibratory rate of many drugs thus enabling him to explain pharmacodynamics as has never been before accomplished.

Electromagnetic waves have no effect on objects which are incapable of vibrating in resonance with them. Such objects are transparent to the particular wave length in question. Thus, rock salt is transparent to heat and ultraviolet waves and ruby glass to red light waves.

Bodies out of harmony with the tissues are either not absorbed or changed before absorption (Abderhalden). My investigations show that the vibratory rate of specific drugs corresponds to the vibratory rate in disease. With my apparatus an empirical scale is employed and it was found that the vibratory rate for syphilis is 20 and that of mercury and potassium iodid is likewise 20. The vibratory rate of gout is 4 and that of colchicum is likewise 4; that the rate of polyarthritis is 3 and that of the salicylates is also 3. The vibratory rate of malaria like its specific quinine sulphate is 10.

Is not the law of similars (similia similibus curantur) in a manner justified by the foregoing?

Pharmacodynamics is identified with homovibrations and not if I am permitted to neologize by heterovibrations. We are standing on the threshold of a new pharmacognosy in which radiotherapy will be employed with relation to the polarity and vibratory rate of disease. I have designated the former as polaritherapy and the latter, I shall neologize as oscillatotherapy. We are now conducting experiments with a radiant energy that permits us to select a vibratory rate corresponding to each diesase. This will be a decided step toward Utopian pharmacognosy.

Electric diagnosis appeals to the uninitiated like the mythical fabrications of an Homeric poem in which with a blow of the hand, the heroes destroy worlds. The simple story of its evolution could be inscribed in three chapters: 1. Discovery of the visceral reflexes; 2. Recognition of the fact that electrons and not cells are the ultimate constituents of the organism and that, in the incessant activity of the former, radioactivity or its equivalent, energy is evolved which has an invariable vibratory rate; 3. That the reflexes surpass in sensitivity any scientific contrivance for the recognition of this radioactivity. Our new concepts in diagnosis and treatment must await the verdict of time for their universal recognition but in the meantime, the art of medicine must suffer the opprobrium conferred on all knowledge, the basic constituent of which is inaccuracy.

SYMPTOMATOLOGY FROM AN ELECTRONIC VIEWPOINT

Medical problems must be solved by the principles of physical science and not by the pathologist. The unit of our organism is the electron and not the cell. Vital phenomena are dynamic and organismal action is a process and not a structure. A functional diagnosis takes cognizance of anomalies in the physiologic visceral functions. Thus a functional takes precedence over a pathological diagnosis, for the reason that physiologic fluctuations may be resident in an organ even before a pathologico-anatomic substratum is assumed to exist. To make the latter, a criterion of pathology, is an archaic procedure absolutely incompatible with the recent developments in radioactivity. A symptom is essentially a reflex and practically always a salutary pro-tective mechanism of defense. Since the visceral reflexes of Abrams have been definitely incorporated in medical literature, one may recognize the esoteric phenomena of disease. Like every other phenomenon in Nature, symptomatology is dependent upon matter in motion or vibration. There is a specificity in semeiology characterized by reflex responses of varied structures by stimulants of definite vibratory rates. Variations in color, sound and heat as perceived by the individual are merely rate vibrations. When a variety of colors is perceived synchronously, it is because our optic nerves contain different fibers which are natural detectors and always attuned to definite vibration rates.

Thus, when the energy of syphilis is rampant, definite areas of duness (vide page 91) are invariably present owing to definite vibratory rates through stimulation always discharging definite reflexes.

My real object in dwelling on this important subject is to direct attention to *propinquity* as a factor in the etiology of disease. The study of "cancer houses" has recently been reviewed and shows that occupants of houses previously inhabited by cancerous patients may contract the disease.

I have shown experimentally (J. Vol 1, p. 10) that cancer developing in people living together (*Cancer à deux*) is not unlike the action of radium which confers radioactivity on other substances. So may a cancerous person by induction alter the tissues of another.

The intimate contact between man and wife is frequently responsible for tuberculosis, diabetes and numerous parasyphilitic affections. There are a large number of neuroses (psychic infections) coexisting in husband and wife and among members of the same family.

This conferred radioactivity through propinquity is frequently illustrated by the writer to his classes by taking a culture tube of tubercle bacilli and placing it in contact with any portion of the body of an individual. Within two minutes, one may detect the specific area of dulness peculiar to tuberculosis. A similar procedure with syphilitic blood or a cancerous growth will elicit the definite areas peculiar to these diseases.

From the foregoing, it is evident that in making the electronic reactions when a subject is employed, the latter must not be in close proximity to the patient.

AUTO-ELECTRONIC REACTIONS

By aid of these reactions which the writer has recently developed, one may dispense with an intermediary (subject) and employ the patient. To a certain extent the auto are more convenient than the heteroreactions heretofore employed yet, there are many instances, notably when the abdomen of the patient is universally dull that it is difficult to differentiate ventral areas of dulness. As in heterosplanchnodiagnosis (J. No. 1, p. 4), the patient faces the west and stands on a plate of aluminum. Mention will only be made of the diagnosis of syphilis although this method is equally applicable in other diseases. In syphilis, one finds the usual epigastric area of dulness and in congenital syphilis the additional area between the navel and symphysis pubis (J.3. Fig. 8). There will also be an area of dulness just above the groin on the right side midway between the ant. sup. iliac spine and the symph. pubis (known as the enterodiagnostic reaction and appears in heterosplanchnodiagnosis (subject used) when energy from the spine of the patient is conveyed to the 2nd lumbar spine of the subject). One also finds in the patient an area of dulness of the lung (J. No. 3. Fig. 9). The latter is known as the pulmo-diagnostic reaction. All these areas of dulness disappear when either pole of a magnet is presented toward the area of dulness insomuch as the energy of syphilis is neutral (J. 1. p. 5). The pulmo-diagnostic and entero-diagnostic areas of dulness disappear temporarily when the skin over the sites of the dulness is irritated whereas the splanchnovascular diagnostic area (above the navel) disappears temporarily when the head is extended or, after repeated deep breathing.

One may measure the potentiality of the energy in auto like in heterosplanchnodiagnosis. Another valuable discovery connected with these reactions is the auscultatory phenomena noted over the dull lung area (whether the subject or the patient is employed).

Over the area of dulness one may hear a distant and faint hum, atelectatic crepitation or during forcible breathing, bronchial respiration and rales. These varied auscultatory phenomena must be carefully studied or otherwise, they may escape detection. Phonendoscopic stethoscopes should not be used as the confusing sounds indigenous to them may conduce to error in the interpretation of the pulmonary sounds.

HEREDITARY SYPHILIS*

Syphilitic infection must always be considered in all chronic diseases. Stoll is cited (J. A. M. A., Dec. 23, 1916) who avers that, in "late" hereditary syphilis, the patient may present no sign of syphilis and but a single obscure symptom which may be so distressing that more or less complete invalidism results. Suspicious symptoms may be found in other members of the family thus making a meaningless symptom highly significant. Jarvis insists that syphilis should be suspected in every case examined. It is equally important to exclude syphilis as a possible factor in a pathological picture. The value of a positive Wassermann test in hereditary syphilis may be seriously questioned considering the beneficial results of anti-syphilitic treatment in cases with a negative Wassermann. Kaskell, observes that while a positive Wassermann can be elicited in about 40 per cent of the wives of paretics and tabetics, yet only a small percentage of their children yield a positive reaction to that test. Jarvis, reviews the conventional stigmata of hereditary syphilis and then proceeds to observe that in families one may predicate or suspect "familial syphilis" if any of the following statements are made as to the causes of death in relatives:

1. Tabes, 2. Paresis, 3. Aneurysm, 4. Apoplexy (before 50 years of age), 5. Cardio-renal disease, (before 50 or 55 years), 6. Headaches (not relieved by the usual means), 7. Nervousness (without obvious cause), 8 Rheumatism (obscure), 9. Tuberculosis in several members of the same family because hereditary syphilis according to Fournier, strongly predisposes to tuberculosis infection later in life.

"There is a test* devised by Dr. Albert Abrams, of San

*Excerpted from a contribution by George O. Jarvis, A. B., M. D., Ashland, Oregon, to the **Pacific Dental Gazette**, Feb. 1917. Francisco*, which is as yet not widely known, but which enables one to make a positive diagnosis of hereditary syphilis in contradistinction to acquired syphilis. This test is positive in nearly 100 per cent of syphilitic infections whether they are hereditary or acquired. Certainly it has been positive in every instance in which a Wassermann reaction was positive and has been positive in 20 cases in which antisyphilitic treatment relieved the symptoms and in which a negative Wassermann was returned by competent serologists."

"The test of Abrams, is only one of a series of similar reactions which permit one to diagnose cancer, tuberculosis, and a number of other diseases with an accuracy and rapidity which are truly noteworthy." Jarvis, cites many cases in support of his personal opinion and the following case may be selected as an example:

"Girl of 18 years. Marked postnasal catarrh with thick tenacious mucus. Marked anemia and quite nervous. Father died of diabetes complicated with aneurysm of the ascending aorta at 58 years. One sister is extremely nervous and has never enjoyed robust health. Wassermann reaction negative; Abram's test for syphilis positive. All symptoms cleared up after antisyphilitic treatment in 30 days."

•Fully described in Nos. 1, 2 and 3, of **Physico-Clinical Medicine**. EDITORIAL NOTE.—Jarvis, observes that the tests of Abrams, "re-quire a considerable knowledge of the reflex mechanisms of the body, skillful percussion, and a fairly accurate ear so as to be able certainly to detect changes in the percussion note." He has devised an ingen-ious tonometric scale (N. C. 76.) for interpreting and confirming sounds elicited by percussion. A physician unable to elicit the areas of dulness in Abrams' tests would be equally incompetent to demonstrate areas of lung consolidation. These clinical tests considering their im-portance certainly demand some study. It is indeed unfortunate that the credulous believe too much and the skeptics too little. In this Journal (No. 3, p. 61), we commented on the unreliability of the Wassermann. More recently, the Luetin Reaction has practically been abandoned. The luetin reaction can be elicited by the intradermic injection of many substances in which the *spirocheta pallida* is absent. Many drugs, notably potassium iodid, bromids, etc., may yield a positive luetin in non-syphilitics. Recently, the writer saw two individuals in the same family in whom vision in one eye was prac-tically lost. Repeated tests were made for syphilis with negative re-sults. The electronic reaction in both cases was positive for hereditary syphilis and after intensive mercurialization the restoration of vision in one patient was 75 per cent. and in the other, 50 per cent.

SPLANCHNO-DIAGNOSIS IN APPENDICITIS

(By William J. Caesar, Richmond, Cal.)

R. S. Age 21. Complained of pain in the ileocecal region. Abdominal retraction, nausea, emesis and loss in weight (20 1bs.).

The electronic reaction was that for the *colon bacillus* over the appendical region and limited to an area not exceeding 5 cm. in diameter. At the operation which demonstrated no pus, it was found that the diseased appendix was strictly limited to the area ascertained by the electronic reaction.

J. R. D. Pulse and temperature normal. Symptoms of a localized peritonitis in the ileocecal region.

The electronic reaction made by Dr. Abrams, who saw the patient with me in consultation, yielded a streptococcic reaction limited to a narrow area running from McBurney's point 3 cm. in width and 10 cm. in length. At the operation, the appendix lay in the *exact* plane of the electronic reaction.

EDITORIAL NOTE—Dr. Caesar, has only recently given attention. EDITORIAL NOTE—Dr. Caesar, has only recently given attention to a study of the electronic reactions yet, in this brief period, he has directed my attention to several important observations: 1. He finds that when a subject is employed with moderate splanch-noptosis, the ventral areas of dulness will be found lower. 2. That the areas of dulness disappear when the head of the sub-ject is forcibly extended. It is known that the areas of dulness are provoked by dilatation of the blood vessels. When the head is extended, the increased tonus of the vagus causes contraction of the splanchnic vessels and hence an evanescence of the dulness. 3. The areas of dulness are more evident when the ear of the phy-sician who percusses is further away from the percussed area. The percussion sound over the abdomen is made up of tympany and dul-ness. All sound possesses pitch and intensity. The former depends on the number of vibrations in a given unit of time. The intensity of sound varies as the square of the amplitude and is less in gas con-taining organs than in sounds generated over tissues of greater in-tensity. As one recedes from the source of sound, the tympanitic tom of the dulness.

component is less and less pronounced hence the more ready recogni-tion of the dulness. There is another factor to which the Editor desires to direct atten-tion. When a subject is used for splanchno-diagnosis, in consequence of fear or some other emotional factor, the areas of ventral dulness are slight or even absent. The emotions augment the internal secretion of the suprarenals and other endocrine glands which by stimulating the autonomic system, not only inhibit the motility of the gastroenteric tract but diminish the blood supply to the viscera. The areas of dulness are dependent on increased localized vascularization and the impair-ment of resonance is in direct ratio to the vaso-dilation.

GROUP STUDY

This relatively new departure in diagnostic medicine, consists of correlated study in the examination of patients. This diagnostic team work is executed by a group of specialists. The advantages derived from this group method of consultation is undeniable. The most conspicuous feature evolved from this work is the suggestion given by the patient respecting his ailment, *i. e.*, the patient's own words concerning his complaint yield a definite idea of the eventual diagnosis in a very large percentage of cases. Naturally, the latter predicates a most careful history and to avoid any omissions a printed form for the history is requisite. The writer has encountered many such forms and knows of no form more ideal than that prepared by Dr. J. Madison Taylor. The construction of a diagnosis without an anamnesis is like practising veterinary medicine. The charlatan appreciates the value of the history. In the advertisement of one "asthma cure", the writer counted as many as 200 questions propounded to the patient.

In many instances, the patients' recital of his symptoms (which often conveys the idea of a patent medicine advertisement) is valueless owing to misinterpretation, exaggeration, and even an underestimation of the feelings experienced. A tabetic may not consult a physician until impotency develops. In instances like the foregoing, diagnosis should rest on evidence and not on assumption and inference. Evidence in its legal interpretation refers to "the means by which any alleged matter of fact, the truth of which is submitted to investigation, is established or disproved." Let us consider group study from another viewpoint. The autocracy of medical dogmatism is best illustrated by a group of men, all pursuing the same methods, immune to other opinions, and in whom individuality is eliminated. In this group for instance is the serologist. His opinion respecting a positive or negative Wassermann is accepted unreservedly. There are many physicians who insist on a blood examination for syphilis by several serologists for there is practically only one chance in five that a specimen submitted to ten serologists will result in an agreement. A coterie of men united for a definite purpose eventually defeat like every other clique the ideals to which they have originally subscribed. The writer has examined a number of patients who were submitted to this group study. An average sojourn in a hospital for 100 hours is necessary to achieve a diagnosis by a series of investigations. Within a minute one may, by aid of electronic diagnosis, ascertain the patient's ailment and not only this, a diagnosis may be established which would be incapable of consummation by the methods of the routinist.

Dr. Dayton B. Holcomb, Chicago, recently consulted the

writer for traumatic neuritis. Inadvertently, he suggested that an electronic reaction be made of his tonsils. A streptococcic reaction with a potentiality of 8|25 of an ohm was elicited from the left tonsil. "It is indeed remarkable." observed the patient, "it took them three months in Chicago to ascertain a fact which you have demonstrated in a few seconds." In addition, one may ascertain the intensity of the disease and thus measure with mathematic accuracy the results of treatment. Thus in syphilis, one may know when treatment is necessary, when to arrest treatment and furthermore to determine the efficiency of drugs. The foregoing to the uninitiated are like inane utterances yet the time will come when recognition will supplant the present "Damnant quod non intelligunt." In the March number of International Clinics is a contribution, "The Electronic Reactions of Abrams," yet the writer doubts whether readers of this article will even give it a modicum of attention. Elsewhere in this Journal, Autosplanchnodiagnosis is discussed which eliminates an intermediary in consummating an Electronic diagnosis.

TUBERCULOTHERAPY

Polaritherapy of this disease has been commented on (J. p. 74). In cases with fever, a new difficulty is encountered. In tuberculosis, the fever is caused by the action of toxins (on the heat centers) absorbed from the tuberculous focus or due to suppuration and mixed infection. Streptococcic infection may readily be ascertained by an examination of the blood (J. p. 9). While a negative energy radioactive drug has been empirically employed in tuberculosis (which yields a neutral energy), there is no reason to doubt that a radioactive agent with a *positive* energy is not equally potent. Now, the streptococcus yields a negative energy, hence a positive radioactive drug is specially applicable in tuberculosis with streptococcic infection. The results thus far obtained (subsidence of temperature) support the latter contention. Barium sulphate which has a positive energy of 178 Ohms is employed by the writer for this purpose. Its method of application may be ascertained by a request to the Editor.

Attention is directed to the augmented potential radioactivity of drugs by attenuation. Aside from the latter, the use of drugs in polaritherapy by attenuation is of economic value.

SPONDYLOTHERAPY

THE PYLORUS REFLEX

"Concussion of the fifth dorsal spine will dilate the pylorus. This fact has been utilized for the following purposes: 1.—To relieve pylorospasm; 2.—To facilitate rapid absorption and hasten the elimination of nauseous drugs from the stomach; 3.— To eliminate the action of the gastric juice on drugs destined for action on the intestinal tract; 4.—In the treatment of gastric affections; 5.—To aid duodenal intubation—the ordinary stomach tube will pass directly into the duodenum during the time pressure is made at the 5th dorsal spine. After ingestion of the conventional bismuth meal, it takes approximately one hour and fifteen minutes for the stomach to void its contents, whereas, after stimulation of the 5th dorsal spine, the stomach voids the bismuth in one and onehalf minutes."

The foregoing excerpted from the "Reference Handbook of the Medical Sciences" and elaborated in the 5th edition of "Spondylotherapy," directs attention to the practical value of this reflex. From letters received from many physicians who have utilized this reflex in their practice, the concensus of opinion was that the elicitation of the maneuver in question is capable of supplanting the stomach tube. Any member of the family may be taught to execute the maneuver after the 5th dorsal spine has been located and marked by the physician. To void the contents of the stomach most effectually, concussion is pre-ceded by the ingestion by the patient of several glasses of water. Dr. Harley E. MacDonald (Los Angeles), in a personal communication to the editor comments as follows: "Just as preventive medicine is abolishing the roller towel, broom and public drinking cup, so medicine is about to say farewell to the stomach tube. I believe that Abram's pylorus reflex will revolutionize the practice of gastroenterology. I have already cured stomach troubles of many years duration by instructing the patient to drink two glasses of water three or four hours after eating. Then to lie on the right side while a member of the family percusses the 5th dorsal spine. I recall a patient practically moribund from inanition superinduced by incontrollable vomiting and in whom the ingestion of peptonized milk followed immediately by concussion of the 5th dorsal spine resulted in cure. It appears to me that we should worry no longer about the vomiting of pregnancy.

STIMULATION AND THE REFLEXES

Irritability represents the power possessed by all matter of reacting to stimuli. In the laboratory investigations of stimulation, excitation was orginally limited to the nervous and muscular systems with electricity as the stimulant and a physical factor served as an indicator of such excitation. Later, excitation was investigated on plant cells, infusoria rhizopoda, etc. It was soon demonstrated that despite these microscopic studies, a single cell was a gigantic system in comparison to molecule and that a correct study of а cytology involved an investigation of the molecular constituents of the cells. The activities of an organism are the of activities of its sum the component cells and demonstrates the unity of life of all organized beings. In accordance with this molecular conception, a large number of chemico-physical indicators were employed in the study of irritability. The physics of life can predicate only one conception,-that there is no vital force with a source of energy independent of the ordinary molecular forces and with a chemistry differing from that of inorganic bodies. The theory of Nernst, with relation to an *electric* stimulus, is probably applicable to all stimuli,-an alteration in the ion concentration on the surface of the living substance. Investigations show conclusively that reflex responses are dependent on oxygen and, with an increase of the latter, there is likewise an increase in the degree of irritability. It has been maintained but not yet demonstrated to the satisfaction of all that the cell possesses a reserve store of oxygen. In accordance with the electronic theory, the study of irritability, must be investigated with relation to the phenomena of electricity, the production of which is a property of all living substances. A study of the reflexes after the manner evolved by the writer shows that the energy of the organism is an electromagnetic phenomenon with a distinctive polarity, wave length and vibratory rate. Finally, the splanchnic reflexes utilized in Splanchnodiagnosis are dependent on vascular dilatations in specific abdominal areas. When the depressor nerve is stimulated (between the 3rd and 4th dorsal spines), the augmented acid production by the stimulated cells causes dilatation of the vessels. The latter fact has been demonstrated by Ishikawa and Schwartz and Lemberger (On the action of acids on the blood vessels, Pflügers Archiv., Bd. 141).

THE OCULOCARDIAC REFLEX

In the norm, pressure on the eyeball slows the pulse through vagus inhibition. Ashner, who first noted this reflex regarded an acceleration or retardation of 10 beats or more a minute as abnormal. The reflex arc of this phenomenon consists of afferent impulses conveyed by the ophthalmic branch of the 5th nerve to the nuclear cells of origin of the vagi in the 4th ventricle. The abolition of this reflex has

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been noted in tabes, pseudobulbar paralysis and others regard its absence as the initial evidence of syphilitic implication of the nervous system (hereditary or acquired). It may be absent even though the Argyll Robertson pupil is not present. In Spondylotherapy (199 et seq.) a series of observations are recorded with sphygmographic illustrations showing various regions of the body irritation of which will cause cardiac inhibition. A simple phenomenon of such inhibition is either a retardation of the radial pulse or, in the reflexophile (individual with exaggerated reflexes) a momentary arrest of the same. In eliciting the oculocardiac reflex, pressure on the eyeball is painful and not unattended by danger. The writer has observed two instances of retinal hemorrhage following the procedure. For the latter reason, pressure with a probe on the nasal muscosa has always been utilized by the writer in preference to pressure on the eyeball. The pulse phenomena are the same and mediated through the same reflex arc.

MISCELLANY

RECENT VISITORS TO DR. ABRAMS RESEARCH LABORATORY IN SAN FRANCISCO.—A. E. Dickinson, M. D., California; N. Stearns, M. D., France; W. R. Scroggs, M. D., California; A. W. Penniman, M. D., California; W. J. Caesar, M. D., California; T. Gottlieb, M. D., California; P. Norwall, M. D., Oregon; W. A. Brown, M. D., Washington.

ELECTRO-PHYSIOLOGICAL DEPARTMENT.—This department has been recently established in connection with Dr. Abrams' Research Laboratory and the Director, S. O. Hoffman, is a research worker of recognized merit.

DIAGNOSTIC CLINIC IN LOS ANGELES.—On Monday, May 14, 1917, Dr. Abrams will conduct a free clinic in Los Angeles for one week. On the evening of this date physicians will be addressed on the subject of electronic diagnosis. Physicians are cordially invited to attend this lecture and to bring their indigent patients. Appointments must be made in advance by addressing: H. E. MacDonald, M. D., 1521 So. Hope St., Los Angeles, Cal. Telephones, Home 23816 and Main 3810.

PATHOSPHYGMOGRAPHY.—In the next number of this Journal, I shall show how the heart may be utilized as a detector of the radioactivity of different diseases by the elicitation of specific pulse curves.

THE AMERICAN ASSOCIATION FOR THE STUDY OF SPONDY-LOTHERAPY.—The approaching convention will be held at the Auditorium Hotel, Chicago, October 1, 2, and 3. All the members are earnestly solicited to contribute something of scientific merit to this meeting and to study known reflexes or to develop new ones if possible, or to extend their application. As suggested in a previous number of this Journal (No. 2, p. 51), to stimulate *original* work, Dr. Abrams proposes to offer a prize in money for the best thesis submitted to him. The thesis may include either a study of the reflexes or some development bearing on electronic diagnosis. Our efficient Secretary, S. Edgar Bond, B. L., M. D., Richmond, Ind., informs the writer that the next meeting will be of unusual interest.

REFERENCE HANDBOOK OF THE MEDICAL SCIENCES.—The seventh volume of this monumental work has just been issued

and contains a condensed contribution on Spondylotherapy by Dr. Abrams.

INTERNATIONAL CLINICS.—Vol. I., of this classic has just been published and contains an article on "The Electronic Reactions of Abrams." 

PRACTICAL COURSES IN SPONDYLOTHERAPY and

ELECTRONIC DIAGNOSIS AND TREATMENT

Dr. Albert Abrams, will give courses on these subjects in San Francisco, beginning on the first of each month until further notice. Only reputable physicians can gain admission to the classes, which are limited. The course lasts two weeks, and the fee, in advance, is \$100.00. Applicants may address Dr. Abrams, 2135 Sacramento Street, San Francisco, Cal.

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