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ORIGINAL ARTICLES.

THE ELEMENT OF HABIT IN GYNECIC DISEASE.

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"The situation has never yet been occupied by man;
That has not its duty; its ideal.
Yes; here in this poor miserable actual,
Wherein thou even now standest; here, or
Nowhere is thine ideal.
Work it out, therefore, and in the working
Live, believe, be free."

THE ARGUMENT.

1. The national endowment and conditions.
2. Primitive type to standard type.
3. The law of conservation of energy operates for, and necessitates the operation of, the "element of habit."
4. The law of conservation of energy, operating in conjunction with original endowment, insures persistence of the "element of habit."
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In the evolution of truth accomplished by the finite mind it became necessary, from the very nature of things, that the beginning should be in the simple and often error-laden method of observing, collecting and arranging those incidents termed facts, and from these by various processes of proving and testing, arriving at the knowledge of the thing sought for.

In all this there has, and always will be, the personal equation; and our experience and knowledge of this element clearly demonstrates a positive variation in type in all conditions and circumstances so universal that one is forced, if he be a seeker after truth, to become skeptical and stand askance on presentation to the results attained. While it can be readily and easily established that this variation is obedient to a universal law and order, it is not always a matter easily demonstrated that to the personal equation in large degree, if not wholly, the variety in conclusion we seem to be so abundantly blessed with, and that, too, in relation to the same facts, methods and the *et ceteras* of our work, must we attribute much of our delay, undoing and contradictions. If we will eliminate this factor, to the extent of abolishing the conscious acquired ego, and permit the unconscious acquired capacity, evolved from hard honest work for truth to prevail in us, there is a law in the universe, the discovery of which was, has and will ever be the greatest of all ages, that of continu-

ity or uniformity, that will harmonize all confusion and lead hard and close to the truth. This has long since been recognized by the naturalist, physicist, mathematician, astronomer and real scientist, but the larger mass of the medical world, and many of the leaders, seem to have little conception of the great blessing at hand. What a brilliant, tragically earnest demonstration the discovery of the planet Neptune was of this thought, where the independent work of four men, who reasoned in accordance with this law, resulted in at last being able to turn the lense upon the very spot in space where the planet was fixed.

We do not wish to be understood as belittling in any sense the marvelous work and progress that has been made in the past in our profession, but simply call attention to a few truths which if fully and reasonably comprehended must necessarily lead to less waste of valuable time and energy, and brush away much unnecessary and seemingly incessant contradiction and confusion. In the consideration of our theme we shall, therefore, endeavor to so approach and consider it that this philosophy may be manifest; and at many places we all can find common ground of agreement and thereby insure profit in what may follow at your hands.

As a first evidence of this, we wish to call attention to the striking suggestiveness that words convey in the consideration of any subject; and always when rightly used point to truth. We are all familiar with the words, natural, normal and standard, and I dare say many of us use them more or less interchangeably, when in truth, while allied in meaning, they are and should be specific, and when so used lead to entirely different conceptions and enforce the truths contained in no uncertain way.

Natural, is derived from *natura*, meaning *born, produced*, as the adjective means pertaining to the constitution of a thing; belonging to native characteristics; essential; not assumed, put on or acquired. Normal, is derived from *norma*, rule; as the adjective means according to an established course, rule or principle; conformed to a type or regular form; acquired. Standard is derived from *extendere*; to spread out, extend; and is used in the sense of that which is established as a rule or model.

Now in the comprehension of the natural conditions and endowments of the human organism, to which horn of the problem are we at once led? Manifestly, not to the normal or standard complete human organism, but to the born, essential characteristic of this organism, if we wish to find common ground of agreement; for here all elements of confusion and error are most completely eliminated and at once do we deal with that which contains within itself, in the primitive type, every energy, function and structure that in larger and more complete expression we find in the acquired organism, the human

body. In short, we can, all of us, come together at the *natura* of the acquired organism, comprehend and appreciate in common the natural endowments and conditions; and from these rise into the larger, acquired, established rules and principles, and agree at last in the spread out and extended expression.

It is entirely unnecessary before this body of intelligent and skilled minds to review and present what is the natural endowment and condition of the mass of protoplasm, or the germinal cell, save to say that therein do we see in its primitive type every energy, function and structure that later we find in larger and more extended expression in the normal or standard type; but for our purpose it becomes necessary to trace the mode, method and causation of this; for therein is contained that to which we wish to refer and especially emphasize, namely, the element of habit in gynecic disease.

We affirm, and have elsewhere in a suggestive way, more elaborately presented, that the energy at work in the primitive type is chemical, and is a direct transmutation from the energy of heat, operating upon known forms of matter, under conditions that have passed from inorganic to organic. These conditions characterized by an independence or freedom under appreciable laws; these being the law of continuity conjoined with the law of conservation of energy. So that, given chemical energy under these conditions of freedom or independence, operating under these laws of continuity and conservation of energy, upon definite elements or forms of matter, the product is protoplasm. This is the causation.

The mode and method is evolution and its conditions, under law. This implies that in the product, protoplasm, the primitive type created by the cause assigned, we must have the germ of every form of energy or activity that may subsequently be manifest in the acquired normal or standard type. The law is the same as for causation; that is, continuity and conservation. Hence to the mode and method of evolution and its rules and principles, previously termed conditions, at work under the primary laws of continuity and conservation, in conjunction with chemic energy and its manifest and latent potentials under the same laws, must we assign the products, function and structure. The necessary product from the first, therefor, being protoplasm in primitive type, from this in conjunction with the second, we must have a still higher product, the germinal cell, and from this as the name implies, obedient to the operation of the same cause, mode and method and the persistent application of the laws of continuity and conservation must we find a product of larger and more complete expression, the differentiated cell, and from this the acquired, fully expanded and spread out expression, the human organism; with all of its contained activities, functions and structure. In short, the normal or standard type.

We affirm, therefor, that the natural endowment and conditions are formed and correctly appreciated only in the primitive type; that the normal and standard are an acquired extended expression and fullness of these; that causation, mode and method being under law and productive of the primitive type, so also on account of law must the normal and standard, the acquired and extended type be a product of this natural endowment and conditions and must be obedient in all activities, functions and structures to the same law and order.

From this we can, without further argument, state our second proposition: That from the primitive to the normal and standard type, the laws of continuity and conservation must hold true, and be ever present, and in conjunction with chemic energy, operating through evolution and its conditions, stand in the relation of causation mode and method, for every activity, function and structure that may find expression in the progression from one to the other.

The law of the conservation of energy briefly stated, declares that the sum of all the energy in a system remains constant and is unaltered by any transformations arising from the action of one part of the system upon another, and can only be increased or diminished by effects produced on the system by effects from external agents; in short, a question of quantity.

On account of the position taken, it is apparent that, as far as the primitive type is concerned, in the effect observed in relation to causation there is no change; it is still, in the progression to the normal and standard, chemical; and in all the transmutations as into heat sensation, assimilation, digestion, excretion or reproduction there is no change in the sum of either individual or collective energy; they are fixed and for its system unchanged. There is change in structure and this alone, but in each do we find the exact reproduction of the primitive type, and this, as before implied, is due to the rule and principle of evolution, but involves no change in the law of conservation. The product contains no more energy or sum and is not altered by any transmutation in it, and there are no added transmutations of energy except what were in the original; it is the exact pattern and type. Evolution calls this conformation to type; but evolution is the mode and method of the product; we are dealing with the causation and the product itself. It is the operation of the law of the conservation of energy, necessitating a mode and method in conformity to what preceded. Parent and progeny are and must be exact and alike in all details and generalities, continue and extend the process and under law every parent to every progeny will be alike indefinitely.

The word habit, comes from *habitus*, meaning state, dress. Do we violate any law of logic or reason when we identify the above progression from cause to effect, by saying that herein do we find the element of habit in relation to protoplasm. We think not; and state our third proposition, that the law of conservation of energy operates and necessitates the operation of the element of habit.

The law of continuity declares that nothing passes from one state to another without passing through all the intermediate states. Such being the case in the progression from the primitive type to the acquired normal or standard type, the law of the conservation of energy must pass to the normal and standard, and operating therein must necessitate the operation of the element of habit.

The element of habit we conceive, therefor, to be that state or dress of protoplasm manifest and observed in any and every stage of the progression from the primitive to the acquired type, as related to energy, function and structure; which insures the repetition or recurrence at any given point in the progression of the attained energy, function, and structure typical of the stage selected. In causation this is chemical in its varied potentials. In mode

and method it is the law of natural selection and, mark you, selection not simply in structure but also in energy and function.

Having traced causation mode and method in the natural endowment and conditions; identified them therein; shown their presence in and from the primitive to the standard type; stated the laws of conservation and continuity, and shown their operation and necessity therefor; identified the element of habit not only in the primitive, normal and standard types, but its necessary presence in each, and at every point in the progression from one to the other; and this necessity and operation being due to the influence of the laws of continuity and conservation; and shown that the element of habit is not only found in relation to causation, mode and method but necessarily passes to the product itself, protoplasm, and is found therein and in relation to energy, function and structure, obedient to the same law and order; the element of habit must therefor be persistent.

This leads to our fourth proposition, that the law of conservation of energy, operating in conjunction with the natural endowment and conditions, namely, evolution, insures persistence of the element of habit, due to the operation of the law of continuity; and not only must be found in and through the progression from the primitive to the standard type, but also in every and any variation that may occur.

From the foregoing, it is evident that in the further consideration of our theme we are confined to that position which considers disorders or disease, be it gynecic or otherwise as a variation in type, in relation to the natural normal or standard, and that this variation is not simply that of structure but also of energy and function. If we apply this to the standard organism or the so-called normal we do so with a certainty of plunging into complexities and confusions that are unending and lead to inconsistencies and contradictions. If we bear in mind the meaning of words, as natural, normal and standard we at once see that we must turn to the *natura*, the natural, in order to find common and sure footing in our conception of variation in type or disease. This may seem simple and unscientific, but certainly the *natura* is the thing itself; is omniscient and omnipresent, and we challenge the objection by saying that it was only when the medical mind evolved the departments of histology, microscopic pathology and bacteriology, that light was manifest and our knowledge of real utility.

Furthermore, we know that the only possible means that are capable of accomplishing a variation in type is that law of evolution termed "change in environment." If this is to be applied, either in theory or practice, to the normal and standard type, we are thrown back into the mysticism and empiricism of the "dark ages" of medicine and are compelled to comprehend cause and effect by symptoms; these may be real or counterfeit. Keeping in mind, therefore, that we are dealing with energy, function and structure as expressed in the primitive type, we state our fifth proposition, that disease is a variation in type acquired by change in environment operating on the primitive type, and that this variation and effect of change in environment is not simply in and on structure, but also in and on energy and function.

This leads to another concept, viz., that an absence of change in environment insures a persistence of the *natura*, or the acquired type, and necessitates a

persistence in progression of the type acquired through the stages of evolution to which the organism is or has become adjusted. We perceive, therefore, that the element of habit is and does become a potent factor, and that it is not only to be found in the *natura* in relation to the primitive type, but also in the acquired, be it normal or standard, and in relation to those conditions termed health or disease.

In the application of the foregoing we must keep in mind that it is in relation to energy and function, as well as structure, that our concept is to be utilized. This may seem an unnecessary refinement in diagnosis, yet without it we gain nothing in reconciliation of apparent contradictions and explanations of the enigmas of our experiences.

Who of us is not familiar with those general divisions of disease called functional and organic, and does not feel in the attempt to explain and point out differences that only a part of the phenomena are accounted for? Who of us has not witnessed those gradual modifications and alterations under the effect of some external or foreign agent in which structure or function may or may not be involved, and yet all the symptoms of the most intense organic change be manifest, and are sought and not found? and who of us has not done careful and effective work in removing evident causes for evident effects, and been non-plussed at the persistence of the phenomena we believed would disappear?

We believe the difficulty lies in the fact that we have been contemplating structure; that we have not comprehended the "trinity" of the human organism, energy, function and structure, and have not recognized the possibilities of a variation in type within the limits of the freedom or independence possessed by each in its relation to the others, as well as without. Take, for instance, the first, energy. This, we affirm, is chemical. Witness the lithemic condition; what mild or protean phenomena may be evolved from this chemic variation, and how long it may continue with only a variation in function. Witness the drugging (morphin, chloral, cocain, alcohol) the human organism has sustained, and how long continued this may be and structure remain intact. For function, witness the over-exertion, excessive changes in environment, abuses and excesses in all directions of function, and energy and structure remain typical and competent. For structure not so much can be allowed, but observe the hypertrophies, hyperplasias and atrophies, and not quantity but type and competency remain. And what part or locality in the human organism furnishes greater possibilities, or is richer in observed phenomena in any of these, than the gynecic?

Here better than elsewhere in the primitive, normal or standard type is observed continuity, conservation and evolution from the simple primitive undifferentiated, up to the completely expanded expression, working out the progression with a marvelous capacity and reserve, in all its adjustments; fulfilling law and order in its wisest and most exacting demands, to the complex differentiated expression of the trinity; abiding for a season, thereby insuring persistency in law and order and type; thence back again; obedient through all to continuity, conservation and evolution. A poem in energy; a symphony in function; the culmination of a cosmos in structure. And yet there are men in the highways and byways in this day of light and possible liberty from error, whose

concept of gynecology is a speculum, a probe, absorbent cotton and iodine; a pessary; a knife; electricity; drugs; an idea or authority.

Further, in order that we may avoid misconception and confusion in considering the argument, the element of habit, from what has preceded is defined as the adjustment of any one or all the elements of the trinity—energy, function or structure, to the circumstances or conditions operating or quiescent at any given time. It is not the causation, mode or method, but is involved therein; is not the law of continuity, conservation or evolution, but a sequence thereof; being an adjustment in and due to the above, at any given time in circumstance or condition of protoplasm, either as primitive, normal or standard type, it remains in our application to show how this is manifest and accomplished. In this we do not consider it necessary to review what you all have observed and no doubt appreciate in that condition called health, and are acquainted with the variations in type within the limits of the condition, health; but to transfer this whole plan and argument into the domain of disease in every detail may not at first seem correct; yet this is precisely what we must do if we accept law and order in the universe, conceive disease to be a variation in type and believe continuity, conservation and evolution as laws in relation to causation mode and method necessarily passing to energy, function and structure. There must be analogy (we use the word with its specific meaning) or contradiction. If analogy, then truth; if contradiction, then error.

We have said that disease is variation in type; this implies change in environment. Look at bacteriology; here we have presented organisms analogous in all respects to the human organism as far as being a part of the same cosmos; with a natural endowment, obedient in causation, mode and method, energy, function and structure to the same general laws in which the culmination in expression is to a *natura* molded for and adjusted to the same objective point—self; but whose mold and adjustment is a variation in type in its trinity from that of the human organism. These, coming into relation with the *natura* of the human organism (and if we had continued observing the acquired normal standard type they would be still unknown), made possible by the analogy, there is accomplished a change in environment to the *natura* of the human organism, and this change in environment is not simply to the structure but to energy and function, and as a result of this change there is and must be a variation in type in the *natura* of the affected organism.

This variation may be confined to one, two or all of the elements of the trinity; when energy is simply modified there may or may not be any modification in function or structure. It may be transient or sustained, and may not pass beyond the confines of the capacity or reserve which needs nothing else to dispose of or tolerate the variation. In this variation we place the benign and some possibly pathogenic organisms, and find by this that our analogy carries us direct from health to disease. Passing from the pathogenic organisms that may at some time accomplish only variation in type in energy, to those that always do, and that in a degree beyond the freedom for individual variation in type, we fully enter the domain of disease and find the continuity of the progression unbroken, and the conservation in

energy absolute. Accomplish the change in environment as you may, either by direct contact of organisms, agents operating upon the acquired type through the mental, nervous, muscular, excretive, secretive, digestive, assimilative or reproductive tracts; or by agents chemical or physical, the modification is received and spent on and at the *natura*, and the effects accomplished may or may not be transient or sustained and the variation in type in energy can be likewise traced into and from the condition termed health into the condition termed disease, and not a break found in continuity and conservation, and not a single rule or principle of evolution violated. So, also, study function and structure, but time forbids. We think it correct, therefore, to say that change in environment produces variation in type. We see that disease is due to change in environment and that it invariably affects the *natura* of the human organism either in energy, function or structure or in all, and consequently is variation in type.

It is manifest, therefore, if we apply this variation to structure we have only organic disease comprehensible with always function and energy involved. This we know is not true if applied to the acquired normal or standard type; is true if applied to the *natura* or primitive type, but only in relation to each individual cell affected; for we know that structure may be seriously modified in the first, energy and function remaining typical and competent. Apply this to function, and we comprehend functional disease with or without variation in energy or structure. If applied in relation to the acquired type, we have no means of differentiating when energy and structure vary, and have no conception of the possibility of the disorder passing from the domain of the functional to the organic; applied to the primitive type this is readily appreciated. Apply the variation to energy at work in the *natura* and conceiving all the various activities of the acquired type as being transmutations from this, and much of the now incomprehensible functional domain becomes clear; immunities from and predispositions to disease are explained; acquired modifications protecting from or predisposing to variations once experienced are tangible; soil, diathesis, resistance are appreciable; the mysticism and ignorance involved in the neuroses is largely brushed away; slight ailments will obey attention; hysteria, neurasthenia, hypochondriasis, many forms of melancholia, and a host of disorders that the careless medical mind attributes to the "fool patient" will become realities; the possibility of a variation from the condition of health to that of disease, and that, too, without any appreciable cause from without will become manifest; and while we at this time can not give the variation in formulas and may not be able in all cases to correct the variation, we can, until this field has been better explored, in hearty accord with our German co-laborers, make a more correct diagnosis, and damn the therapeutics.

Appreciating disease as a variation in type, we present the last point in our argument, and that is, that the possibility always exists in disease as well as in health for the variation in type to become fixed or adjusted in its relation to the *natura* and its trinity to such a degree that it is more or less persistent. This necessarily implies a persistence if the change in environment is more or less perfect, and so long as this more or less perfect persistence of the change is operative there can be only more or less operation of

another principle of evolution, that of atavism or reversion to the original type, and consequently the disorder must be more or less persistent and appreciable.

The conclusion we reach from this is, that habit being the state or dress or adjustment attained in the *natura*, either in one, two or all of the elements of the trinity, it necessarily must pass to and be present in disease and be one of the elements in pathogenesis, pathology and pathisotherapie.

In illustration, and for the practical part of our paper we wish to present the following, the first of which is variation in type in relation to energy:

Miss A., aged 25, school teacher; five feet four inches; 115 pounds; menstruated at 13; always more or less trouble and for last six years sufferings severe; nostalgia more or less continuously; malaise and ready fatigue persistent; constipation; cephalalgia of top and back of head; vertigo at times; gastric disturbances slight, but explosive at times during menses; heavily coated tongue; skin flabby but not anemic in color; uterus in complete retroversion; density greatly modified, so much so that flexion can readily be produced in any direction; no evidence of any structural changes save slight enlargement of left ovary and moderate fixation of right; easily released; no history of any inflammatory attack at any time and no discharge save at menses; this is normal and good color. The dislocation is marked; uterus at first examination was found impacted between the utero-sacral ligaments, which was readily relieved; the patient declining operation a pessary was introduced, well fitted, gave no discomfort and apparently relieved the relaxation manifest at cervix. This patient has been under observation now for over a year, and only during the last four months has there been any evidence of improvement in the relaxation and persistent slopping of the uterine body over upper arm of pessary. Every means possible was utilized; all symptoms met; tonics and the et ceteras of the gynecologic armamentarium were exhausted and no appreciable benefits attained.

The environment was pernicious, monotonous, ineffective, and the variation in type was likewise persistent. It was not until we comprehended that this was in energy that we found the key to the situation; structure was certainly unchanged; function was to some extent, but when considered in relation to the *natura* it was not; the type was there but the *power* for active function through structure was not there. Considering, therefore, that the variation was in energy we could find nothing to fit the case unless it was that the chemic modification was that of lithemia. Acting upon this, and persisting for three months, we were rewarded by the first and only evidence of relief, that of general systemic well-being and decided improvement in the relaxation of the pelvic tissues, to the extent at this date of a more normal density of uterine tissue and the pessary now sustaining the uterus in position. But all along the reversion to the original type there was and is now a more or less constant tendency to return to the full expression of the variation. This, we consider, the element of habit. The adjustment of the *natura* to the variation had been so long in operation, so fixed, that in spite of the activities at work, by presentation of changes in environment within the lines of health toward this end, that it is continuously showing itself. The law of natural selection has passed from the limits of health to the domain of disease and is at work in the new adjustment; and we expect to have to contend with this element of habit until such time as the environment for health shall have been in operation so long and forcibly that the *natura* has been brought back entirely to the adjustment of the original type, and the element of habit for disease has become the element of habit for health.

Variation in type in relation to function in pure and simple expression is not frequent, but is usually met after variation in energy and structure has complicated the process, standing in relation of cause to the former and sequence to the latter.

The following case illustrates with a considerable degree of purity the type:

Miss A., age 27; single; brunette; five feet four inches; weight 115 pounds. Gives clean bill of health up to 21 years of age, at which time, following severe mental and physical strain, began to have leucorrhœa, backaches, gastric reflexes, cephalalgia; pains the day before and first day of flow, gradually changing to three days before and the several days of the period. Save at the menses and the leucorrhœa feels perfectly well, capable for her duties and enjoyments, and would to the casual observer be considered a healthy woman. Examination of the gynesia revealed nothing tangible or without the domain of health in relation to structure or energy. But at the menstrual epoch the picture was radically changed. There was hyperesthesia; decided enlargement of uterus and ovaries; mobility diminished and all the evidences of general pelvic stasis and hyperemia; in short, the type was congestive; here with energy typical and competent, structure unchanged, the action or function passed far beyond the type and we had all the phenomena of the first stage of an inflammation.

The variation in type had reached the point where energy was beginning to yield and this accomplished, structure would not be long in joining in the progression. Those who have had this type to deal with know full well the fixed character of the variation; how the tendency to recurrence is frequently exhibited and how slight changes in environment send the subject back again and again. Here do we see the element of habit.

As illustrating variation in type as related to structure, we point to the traumatisms, and lesions accomplished after long continued operation of variations in type of energy or function. Particularly is it observed in that class who have gone through long experiences of organic disturbance, in which evolution in structure has been accomplished, which in many instances remain more or less permanent. Even in those in which reversion to the original type has been most perfectly accomplished, do we see manifest repeated and persistently recurring attacks in which the type is again and again more or less fully expressed, and that too in the absence of the specific agent that at first produced the variation. This we consider the element of habit responding to the variation in structure. The new state, dress or adjustment is repeatedly showing itself on account of the persistent change in environment maintained by the variation in structure. We wish it understood that in this we do not lose sight of the active specific agents that in beginnings and for periods afterward, and possibly to the end, stand in the relation of cause to effect; but these die out, are disposed of and leave sequences. These sequences are the variations in type in structure which may or may not pass away that we note; and these in this type are the real factors that keep in operation the new adjustment and the element of habit.

For instance, look to the hypertrophies, atrophies, hyperplasias, adventitious and heterogeneous changes in structure, and study the element of habit therein. Who has not observed the aches and pains; the functional activities, the recurrences, the lapses from apparent states of health to disorder after more or less continued experiences of disorder, and after the removal of apparent causes and conditions for the same; the radical therapeutics of the day and in

most instances the gradual and final reversion to the original state and condition of health? How many sensations, aches and pains we meet; the persistence of the menstrual flow and molimen, when we know beyond doubt that the agents for these activities have been absolutely done away with? How often we see the gynesia after prolonged diseases become restored to conditions that the skilled sense of touch knows are within the domain of the normal or standard type, when, with some reasonably sufficient cause the swing back into the domain of the previous experience is so sudden and aggravated that the observer is non-plussed? Who is not familiar with the phenomena of heredity and the climacteric? These are all kindred and can not be interpreted or comprehended save but by the element of habit; and in the progression of disease during the active stages, the host of experiences and evidences that are readily reconcilable and can be intelligently explained are many, and correctly appreciated lead to safe therapeutics. Appreciating the element of habit in health and its possibility and processes in gynecic disease, and comprehending the entity to be a variation in type either in relation to energy, function or structure, one, two or all, and these as related to the *natura* of the organism affected, obedient to continuity and conservation, we are led in the solution of the problems presented, to the rules and principles of *atavism* or reversion to the original type.

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SOME MEDICO-LEGAL FEATURES OF THE SCHNEIDER CASE.

Read before the Medical Society of the District of Columbia, Oct. 10, 1894.

BY IRVING C. ROSSE, A.M., M.D., F.R.G.S.

WASHINGTON, D. C.

With the softening influence of time, which modifies all things, our minds are prone to assume the blank state so necessary for calmness of thought and dispassionate consideration that should always be brought to bear on all questions of forensic medicine. It is in this frame of mind, I trust, that we now approach the consideration of a case that was attended by much public excitement.

On Jan. 28, 1893, I visited the district jail, in company with Dr. Godding, of Washington, to examine into the mental condition of a young man under sentence of death for the murder of his wife. Certain features of this celebrated case, but more especially the lunacy inquiry, came within the unfortunate category of those prejudged by public sentiment, regardless of calm consideration of the attendant facts. But the question of guilt or innocence being no concern of mine, judgment may be suspended on this point. Whatever a culprit may be from the special pleader's point of view, to the physician a patient is only a patient whether he be saint or sinner, and the judicial aspect of such cases in no way concerns us, unless the medical facts relate to the law or tend to promote the ends of justice.

As far as I could ascertain the prisoner's antecedents he had led an irregular eccentric life, was addicted to the abuse of alcohol and tobacco, and was unhappy in his domestic relations. A near blood relative had died of spinal disease, another was hemiplegic, another had nystagmus, and the father was a senile dement, being insane before and at the time his son was begotten. The prisoner had a poor common school education and his family were Lutherans.

From the jail attendants and the physician it was learned that the prisoner had undergone a marked change in conduct; from being neat in his personal appearance he had become slovenly and filthy; his manner of talking, from being quick and sprightly, had become slow and hesitating; when addressed he would be apparently forgetful and have difficulty in concentrating his mind upon matters as to which

he was interrogated, and before answering would repeat part of the question in a stupid way after the manner of echolalia. He refused food for fear of poisoning, suffered from prolonged insomnia, talked incoherently, especially about a wonderful electrical machine he had invented; frequently yelled in the night that persons were entering his cell, throwing acid upon him, and making attempts on his life.

I found on entering the cell a man of unkempt appearance with pallid complexion, long hair and beard and a morbidly suspicious manner. First inspection showed slender trunk and limbs and thin cigarette-stained fingers. He constantly and aimlessly picked and scratched his hands and wrists after the manner of many patients one sees in asylums. Palpation of the head gave no result, nor was there any marked peculiarity in its shape beyond a slight plagio-prosopia of the right side. There was a slight ptosis of the right eyelid, irregularity of the lower teeth, a narrow palate arch, and an extensive ranula. The superficial veins appeared healthy. There was a brown scar on the left of the glans penis. A quantity of urine passed in our presence showed a large excess of phosphates on analysis.

Various tests for the motility, sensibility, reflexes and special senses were applied. Exaggeration of the patellar tendon reflexes was present, and the prisoner either could not or would not distinguish colors. The circulation and respiration were weak. The pulse was 90 and irregular; the temperature under the tongue 99.5. Owing to the prisoner's stuporous condition and his morbid suspicion, it was a more difficult task to ascertain the limit of his ideas, imagination, will, and moral and affective sentiments. He complained of heat and pain in the back of his head and arms; of excessive itching of the skin; of inability to sleep because of the faces of dim green color on the walls, of whisperings and voices, and of the annoyance caused by persons throwing acid on him and having designs on his life. He also said that attempts were made to poison his food; he talked of the attempt to steal an electric invention, and accused his brother and mother of being inimical to him. When asked if there was anything he wanted he asked for medicine to make him sleep. Numerous questions put with a view to leading up to the prisoner's mental weak point failed to elicit much beyond the fact that his memory was apparently weakened, that he was suffering from phrenasthenia, and that he lacked the knowledge and shrewdness to dissimulate the systematized and fixed delusions which were ground out with hand-organ regularity at each visit. At one of these visits the prisoner showed not the slightest sign of emotion on the arrival of his mother, nor was there on several occasions any change in the beat or frequency of his pulse when suddenly asked about killing two people, one of whom was his wife, and that he was soon to be executed therefor.

With Dr. Godding and Dr. Brush, I did not think it possible for an ordinary ignorant man, even with special training in insanity, to feign successfully the symptoms observed. Malingering tests failed to lead the prisoner into any gross error, even after prolonged and varied conditions of examination.

In view of the foregoing facts and my wide experience with frauds and malingerers among thousands of soldiers, sailors, pensioners, and others, I felt satisfied that the prisoner bore the characters, physical and psycho-physical, of degeneration, of aberration, of constitutional abnormality sufficient for recognition, and I signified my willingness to go into court and testify as to the existence of paranoia. Besides, the symptoms observed were similar to the clinical picture of that affection as given by more than fifty authors whom I had previously consulted.

The inquiry accordingly came off before three judges, and on this occasion I had the honor to differ with my friend, Dr. Dana of New York, who was by far the most intelligent, conscientious and well informed of the experts employed by the adverse party.

The inquisitorial procedure conducted by the three judges was a long one; some twenty-nine witnesses being produced on either side, and the testimony was voluminous. To review it here at length would manifestly be out of place; but the legal procedure