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## *Original Contributions.*

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### HIGH VASCULAR TENSION.\*

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ONE who endeavors to keep up with the medical literature of the day can scarcely fail to be impressed with the attention being given to the subject of abnormally high vascular tension. Two decades ago the text-books hardly mentioned it, or did so casually, as a curious phenomenon; now it seems to engage the attention of the leading clinicians, the men whose articles are always too important to be neglected. As a type of the publications the writer has in mind may be mentioned the fine address given by Osborne at the Section on Pharmacology two years ago.

Abnormal vascular tension is a danger signal, directing attention to the presence of some condition that is irritating the heart, exciting it to undue action, or increasing its labors to an abnormal extent. The cause is some agent that directly irritates the walls of the arterioles and capillaries, increasing their contractile force, or else produces such increased contractility through irritations of the nervous centres, or the nerve trunks. The differentiation is yet to be made, and probably will wait till a new Virchow arises to redirect attention to the study of cell function, and the painfully slow progress of physiology, pathology and toxicology enables us to recognize the disordering effects of each toxic principle.

Wherever the action may be exerted, we know that the symptom is due to the circulation of certain toxic matters in the blood, toxins introduced from without, generated in the body, in

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the exercise of its normal metabolic processes, or absorbed from the storehouse of evils in the alimentary canal. We look for excitants, therefore, to the cachexia, syphilitic pladual, gouty, strumous, dartsrous, saturnine, glyceinic; to any defects in the excretory apparatus or their functions; to retention and decomposition of the contents of the alimentary canal and the establishment of a reversed osmotic current, from the lower bowel to the blood, instead of the normally directed one from the blood to the bowel. The first group of causes, and the third, require their own consideration; we seek especially to consider here the treatment of the second group, where we have abnormal tension as the result of defective elimination.

The gradual surecharging of the blood with toxic matters is evidently due to the inability of the excretory apparatus to cope with the tasks placed upon them, and this may be due to an increase of the tasks, or to deficiency in the powers of the organs of elimination. In time we are brought to face both, as the continued demand for excessive service induces disorder, exhaustion and connective hyperplasia.

The primary indication is to so apply the laws of personal hygiene as to reduce to the lowest possible limit the task that is imperatively and unavoidably placed upon the eliminants. The diet must be arranged, the occupation and personal habits brought into line, all necessary sources of irritation and strain removed. The bowels are to be thoroughly emptied and kept clean and aseptic; the osmotic current maintained in the proper direction; the cachectic toxins swept out and their sources removed. This leaves us to deal with the symptom of tension itself.

The effects of high vascular tension are in themselves disastrous, and by constricting the lumen of the small vessels it interferes with nutrition and elimination, retaining the blood uselessly in the venous receptacles, and allowing a diminished supply to flow through the arterics for aeration and for the general nutrition, while the diminution of the supply to the eliminant organs lessens their excretion and increases the toxemia that gives rise to tension. A vicious circle is thus established, and this renders the tension a primary object for therapeutic attack.

The ideal remedy for this indication should of course be absolutely uniform in its nature and strength; its effects always the same as to quality and quantity of action. As the condition is a continuous one, the remedy should be capable of affording an effect that may be maintained over prolonged periods. It should relax vascular tension, open the doors of elimination, should not weaken the heart unnecessarily, or interfere with nutrition, or antagonize any other treatment necessary to meet leading indica-

tions. Finally, it must be a drug from which no disastrous habit can be formed.

Potassium iodide has been employed largely. The potash is itself toxic, the iodine causes emaciation, stimulates waste, and except when otherwise indicated by a cachexia coming under its influence is not advisable. The relaxant powers of this salt are uncertain and indirect.

The nitrites are the agents almost universally utilized for the purpose under discussion. Their power is unquestioned, it is quickly manifested and speedily subsides. They are ideal agents for sudden emergencies, but their effect can be maintained only doubtfully, and then by a multiplication of rapidly repeated doses that may be all right in an emergency, but would be intolerable in a chronic affection such as this. Their effect upon the eliminant apparatus is similarly evanescent. Even if they could be administered continuously for months and years, it is uncertain that no ur toward effects would ensue.

When we come to veratrine we find in it an agent that amply fulfils every item of the complicated indication. Veratrine is uniform in its composition and unvarying in its action; by its use continuous relaxation of vascular tension has been maintained for eighteen months, and may be maintained for years if desirable with a few daily doses, without any sort of injury, immediate or remote. It relaxes vascular tension, stimulates elimination by the kidneys, liver, bowels, skin and lungs; in the small doses employed it strengthens the heart muscle directly as well as controlling its rate and rhythm by strengthening inhibition; it does not antagonize any other treatment that may be required, or interfere with nutrition in any other manner than by sweeping away the waste that blocks the channels, and it does not create any drug habit. Really, it seems that if we had had a drug made to order we could not have improved upon veratrine. It is about the safest medicinal agent in the materia medica, for it provides for its own elimination, and possesses a remarkable safeguard against possible overdosing. While in excessive doses veratrine depresses the heart, it irritates the stomach and bowels to such a degree as would necessitate its discontinuance, while yet given in doses far below the danger line. To do serious harm with veratrine would argue a depth of ignorance and carelessness that we would not willingly acknowledge to be possible in the medical profession. Even the accidental taking of an excessive dose carries with it the antidote in the gastric irritation it would cause.

Why, with all these advantages, is veratrine not universally employed for this indication, for which it is so admirably designed?

Turn to the last edition of the *Pharmacopœia*, page 498, and

you will see that the officinal veratrine is a mixture of alkaloids from *Asagraea officinalis*, not the pure single alkaloid to which my article has reference. Such a mixture is necessarily of uncertain composition since the alkaloids do not exist in exactly the same quantities and proportions in all specimens of the plant. The compilers of the Pharmacopeia evidently did not consider veratrine as a remedy for internal administration, but one solely for external application, for which the said mixture may answer. Still, they appended a dose, which, if applied to the dispensing of the pure alkaloid, offers a further explanation of the neglect of veratrine—"Average dose, two milligrams, gr. 1-30."

The average adult dose of pure veratrine to begin with is gr. 1-134, repeated every one to four hours. Many persons cannot take this amount without irritation of the stomach, unless the dose be given well-diluted. It should always be given in solution—a small dose may irritate if it comes in substance in contact with any mucous membrane. Irritation is manifested by a sense of warmth in the stomach, by which the outlines of that viscus are marked out to the patient's consciousness. Larger doses cause nausea, vomiting, and even doses of gr. 1-40 at bedtime will occasion a perceptible action of the bowels next morning.

When the exact daily dose has been ascertained, the quantity that will relax tension to the extent desirable in the case, the veratrine may be concentrated in three or four doses per diem, one at each meal and at bedtime. This may be continued—forever. The only possible harm that may ensue is that the patient may feel the good effects of the elimination to such an extent that he unduly increases his intake of food. No other objection has arisen to veratrine in the writer's use of it, which has been prolonged and somewhat extensive.

After making a generous deduction from the above statements on the score of personal bias, it seems that veratrine may deserve a trial in this condition.

PARALYSIS AGITANS.\*

BY JOHN V. SHOEMAKER, M.D., LL.D.,

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*Gentlemen.*—This patient, Mr. J. L., aged 46 years; nativity, Scotland; occupation, coal miner; complains of, on admission, general malaise and weakness, especially in his legs. He says he is nervous all the time, and that his sleep is very much disturbed by the nervousness and the constant muscular contractions of his legs.

*Family History.*—Parents are both dead. The mother died during childbirth, and the cause of the father's death he does not know. He has one sister and three brothers living and in good health, but has no knowledge of his grandparents and other kin.

*Previous Personal History.*—As a child he had measles, whooping-cough and quinsy on several occasions. Since then he has never been ill enough to compel him to remain in bed. He denies venereal diseases.

*Social History.*—He is married and is the father of six children. Wife and children are in good health. As a miner he is exposed to wet and draughts of cold air.

*Habits.*—For fifteen years he drank alcoholic beverages to excess; at times he would get on a spree and remain drunk for two weeks. However, for the past three years he has not indulged at all. He smokes tobacco excessively, and drinks a great deal of coffee.

*Present Illness.*—During the past year he noticed that he was gradually losing in strength. Six months ago he began to get very tired while at work, and often was obliged to sit down during the day. Sometimes when he did straining work and sat down to rest every muscle in his body would be in a state of tremor. Since the 15th of January, 1906, he has not been able to work owing to his general weakness, especially in the back and legs. He suffers no pain at all.

*Physical Signs.*—General examination shows a male five feet five inches tall, weighs 120 pounds, has gray hair, blue eyes, and apparently looks to be sixty-five years old. The skin over his body is moist and warm to the touch; over the knees and the sacrum are a few white, velvety, punched-out scars. The inguinal and axillary glands are enlarged and hard; the reflexes are normal, except that the patellar is slightly exaggerated in both limbs; the eyes respond to light and distance; the ears, nose and mouth are normal; the lungs apparently are in good condition; the heart is nor-

\* Delivered before the Medical Class of the Medico-Chirurgical Hospital of Philadelphia.

mal in size and beat, except that the sounds are slightly increased, and the abdominal viscera are all normal, but the area of liver dulness is slightly decreased in all directions. His muscles are soft and flabby in the back and legs; they are in constant motion or tremor. When he stands erect the muscles of his legs tremble so much that he shakes all over. When he sits down and has one leg crossed over the other, the tremor is more noticeable, the foot being in constant motion. He walks with his head bent forward, and the eyes fixed toward the ground a short distance ahead. His steps are short and hurried, and his arms are slightly flexed and pendulous, with the thumb and forefinger approximated, as in the act of making a pill. The disease has not advanced to the extent that his face and speech is affected. The characteristic "mask-like" expression is absent. There are also no mental changes except that he is brooding somewhat over his affliction.

*Diagnosis.*—The diagnosis in this patient is easy, though the disease is not so far advanced; but from the gradual onset, the tremor of the muscles, the general weakness, and the character of his gait and attitude, we have diagnosed his trouble as one of paralysis agitans. It is called shaking palsy, or Parkinson's disease. This disease, especially in the stage this case is at present, might be mistaken for cerebro-spinal sclerosis, or multiple sclerosis. The chief differential points present in multiple sclerosis are no tremor when the patient is at rest, violent shaking of the head, tendon reflexes greatly increased; patient has no tendency to run forward; voluntary motion beyond control; the patient is peevish and childish, and there are periods of marked improvement.

*Pathology.*—The true pathology of paralysis agitans is not known, and remains to be a subject for speculation. Some think its pathological condition primarily begins as an endarteritis and periarteritis, followed by a proliferation of the neuroglia and patches of perivascular sclerosis. Others believe that it is first a functional disturbance, and later a destruction and degeneration of the dendrites of the anterior horn cells, thus interfering with the motor impulses. Many other suppositions have been made, but none are entirely satisfactory.

*Etiology.*—The disease is more common in men than in women. Alcoholism, exposure to cold and wet, mental work and mental exhaustion are supposed to be the causes of the disease. In this patient we have a history of alcoholism for fifteen years, and also exposure to wet and cold; the three facts combined are sufficient to lead us to believe that the alcoholism and the exposure were the cause of his trouble.

*Treatment.*—Most of the writers on this disease say that the medical treatment is absolutely without avail. Of course this is

true in some cases, but many patients can be helped materially, and live the rest of their lives without much discomfort. They usually die from some intercurrent disease. The drugs that have the best influence on the spinal cord in these cases are the preparations of *conium maculatum* and *cimicifuga racemosa*. We will, therefore, place this man on three minims each of the fluid-extractum *coni* and fluid-extractum *cimicifugæ* four times daily, increasing the dose one minim every other day until he takes twenty minims of each four times daily. The use of arsenic and strychnine are also of value in paralysis agitans by their effect upon the spinal cord. After this patient has had sufficient amount of *conium* and *cimicifuga*, I will place him on a prescription containing arsenic and strychnine. The galvanic and static currents of electricity are valuable to stimulate the spinal cord and give tone to the muscular system as well. Tepid baths and massage are also very essential to keep up the tone of the muscles.

NOTE.—Three weeks ago to-day I had the pleasure of showing you Mr. J. L., who is suffering from paralysis agitans. Since then he has been taking the *conium* and *cimicifuga*, and is now taking twenty minims of each of the fluid extracts four times a day. He has improved very much, as you can see for yourself. He has hardly any tremor of the muscles of the legs, and his gait is much more steady and more decided. He sleeps well, his appetite is good, and says he feels very much improved in general. While I realize that he is not cured, yet I feel that he is improved and will remain so, provided he takes good care of himself, and, in fact, I believe that he will still improve more as time goes on. I will discontinue the *conium* and *cimicifuga* to-day, and place him on a combination containing—

- R. Strychninæ sulphatis ..... gr.  $\frac{3}{4}$
- Liquoris acidæ arsenosæ ..... ℥ $\frac{1}{10}$  ii.
- Acidæ hydrochloricæ dilutæ ..... f $\frac{5}{7}$  ss.
- Glyceriti pepsini ..... q.s. ad f $\frac{7}{5}$  iii.
- M. Sig. One teaspoonful in water after each meal.

After he has taken this prescription I will increase the dose of arsenic; probably place him on the trioxide of arsenic.

# *Mental and Nervous Diseases*

IN CHARGE OF

N. H. BEEMER, M.D., AND CAMPBELL MEYERS, M.R.C.S., L.R.C.P. (LOND.).

## FUNCTIONAL INSANITY AND ITS RELATION TO ALLIED NEUROSES.

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It requires courage, if not daring, to advance at this stage of neurological research and knowledge—the view that many of the morbid mental conditions known as insanity are functional, and that therefore there are diseases of function as well as of organs. I expect this theory to meet with much adverse criticism—possibly with a severe rebuff. For these I am prepared, but to avoid misapprehension I request permission at the outset to define my terms—always a risky procedure, for it is said that by defining one erects an idol with special qualities and which invites by these qualities its own destruction. It is also said that the idol of to-day becomes the object of contempt to-morrow. Definition is, however, a convenience, for only by this means can we group allied symptoms, note their relations and sum up our knowledge.

By function we mean the work done by or the action of any organ or set of organs, and among these organs we include the “independent protoplasmic unit”—the neurone. The work of these neurones varies in quality and intensity. Their energy can vary with a suddenness which appears to preclude any organic change. We know, and it is proved both by experience and disease that the various organs of the body receive their direction, tone, and support through the neurones from the central nervous system, and although we are accustomed in disease to find structural alterations which account for the morbid phenomena, yet nature may, on occasions, experiment in so subtle, fine and obscure a manner as to alter the function without leaving any evidence of definite or appreciable change in structure. We meet with both men and women at all ages whose lives are a misery to themselves, a cause of distress to their relations and who suffer from perverted sensations or anesthasias, paresthesias, and dys-esthasias, from pains or algesias, from loss of

power or paresis, from various affections of the sense organs and even from mental abnormalities, yet who have no discoverable nervous lesions to account for these symptoms, and whose lowered vitality and consequent incapacity can only be described as "functional."

These functional diseases—also termed dynamic or vital as opposed to those of a physical or material character—are in contradistinction to organic or lesional diseases. We are acquainted, for instance, with tumultuous cardiac disturbances following upon a shock or surprise or associated with emotions of fear; with respiratory disturbances—familarly described as "taking the breath away"—after startling sensations. We find albuminuria without disease of the kidneys, and mental perversion accompanying bodily disorders, without any definite structural brain disease. The mental irritability and the impulsiveness of cardiac (more especially of aortic) disease, the buoyancy and hopefulness evidenced in cases of tubercular phthisis and the different mental states accompanying digestive troubles or disorders of nutrition are so well known that the maxim "The stomach rules the world," is a true word spoken in jest. I need but refer to the mental states associated with gout and other metabolic changes to emphasize my theory that there are many and varied mental abnormalities without definite structural brain lesions, *i.e.*, that there are diseases of function as well as diseases of organs.

As to the definition of insanity, it is not in itself a disease, but a symptom which may be due to many different morbid conditions. It had been defined negatively as a condition opposed to sanity, and this is the view we shall adopt as being sufficiently comprehensive to include every variety. We know that the standard of mental health is a variable one, so much so, that one may safely say that nobody is always sane. The age of the individual, the period in which he lives and the class of society to which he belongs all have to be considered. There is a different standard of mental health, as possibly there is of honor and morality, and certainly of custom and social usage for each class of society and in each social *stratum*, and therefore so many different degrees of insanity; so that insanity becomes a want of conformity with an artificial code. We know, however, that the social regenerator, the man of genius, the statesman and the poet, are all out of harmony with their surroundings, yet the term insanity can hardly be taken to describe their mental life. Moreover, the criminal, the pessimist, nay, even the ambitious man, may each be out of harmony with his environment, but yet not insane. Of all the symptoms of insanity, possibly the presence of illusions and hallucinations, which delusions corroborate,

are the chief indications, because these form the basis of acts and it is *conduct* in the last resort which is the keystone upon which a judgment rests, as to what constitutes sanity or insanity. It may be pointed out, however, that there are probably many hundreds of men and women who suffer from no legal disability or social ban because of the presence of illusions, hallucinations, or delusions. They fulfill all their obligations to themselves and to society and their idiosyncrasies are tolerated. When, however, abnormal conduct passes a limit fixed for that particular class of society, considerations of expediency decide that the person should be segregated; he is then certified and henceforth becomes an official lunatic and his insanity a recognized aberration. I venture to think that many of these cases in their early stages are functional. It is well known to those with large experience of mental diseases that all the symptoms of insanity may be present in disordered conditions of health, and cases are received into asylums which are not true organic insanity, but the delirium of febrile diseases, where illusions, hallucinations and delusions were temporary and due only to disordered nutrition. I have seen cases of scarlet fever, typhoid, and pneumonia, in whom the mental symptoms so preponderated that the patients were certified and admitted into an asylum as alleged lunatics, in whom the illusions, hallucinations, or delusions were only the temporary delirium or febrile states resulting from disordered nutrition. Furthermore, in regard to the question of insanity, the symptoms may be repressed at the instance of the individual patient, who is able to inhibit the undue prominence of delusions or of any one striking content of consciousness, which again indicates that there is an absence of structural or organic lesions. It will be seen that we not only deal with legal insanity—which is a formal and artificial aspect—but that the term insanity is to us more comprehensive and is taken to include all mental conditions which are opposed to sanity. What has the pathologist to say to us about insanity? If we accept definite lesions accompanying parietic and other forms of dementia, certain neuronie and other changes in acute delirium, and the deficiency of brain development in idiocy and imbecility, there is no pathology of insanity. There are innumerable mental states for which there are no definitely discovered or ascertained physical conditions, and there are many mental abnormalities in which both microscopical examination and the comparison of appearances observed after death with the symptoms recorded during life, fail to discover any morbid states in the brain underlying the mental derangement. In many cases of insanity the most delicate electrical apparatus, the test tube, the ophthalmoscope, the sphygmometer, and the microscope in the hands of able, earnest, and com-

petent observers and investigators have all failed to recognize any disease in the physical substratum of mind, and observers have been content, in the absence of definite lesions, to describe mental abnormalities as "disease manifestations"—but not disease, *i.e.*, the mental states or conditions are functional and not due to structural or organic changes. It is open to objection that the absence of observable lesions is not definitive, that failure to observe them is due to insufficiency of the means of investigation at our command and that the further investigations are directed the fewer become the number of functional diseases. It is accepted, however, that up to the present many nervous disorders have attributed to them as facts of causation conditions such as are implied in the terms "defective or disordered cerebral innervation," phrases which although somewhat vague may yet probably harmonize with the facts better than any others hitherto advanced. Ferrier, Horsley, Waller, Sherrington, and other great physiological workers have thrown much light upon the energy set free in nervous centers. Horsley has detailed methods of estimating the amount of energy developed in the nervous centers themselves, by quantitative measurements of phenomena correlative to nerve energy, and Mosso has endeavored to draw conclusions in regard to nerve energy by measuring the physical effects directly produced by its activity. In spite of these researches, however, we know little more than the rate of transmission or the rate of progress of nervous energy along a nerve. What the actual energy may be is still vaguely described as "motion liberated by molecular change," *i.e.*, by chemical or electrical changes in the highly specialized nervous structures, a position scarcely advanced beyond the description of Newton, that nervous energy was "a vibratory disturbance of the particles of the nervous system." Possibly all actions of nerve elements in the brain are a chemical change, the molecules breaking up into lower compounds. We know little about nerve force, but we do know, by their sensitive reaction to toxic agents, that the higher nerve structures are exceedingly delicate, that they are readily excited and readily inhibited, showing a condition of sensitive equilibrium, which is demonstrated by the disturbances of muscular action so characteristically associated with the mental erethism of acute insanity. Let us briefly consider the physiology of these nerve structures. When that part of the cortex anterior to the fissure of Rolando is electrically stimulated, co-ordinated and not individual muscular contraction results—the contractions being with the object of accomplishing some definite movement. An irritative cortical lesion here will cause clonic convulsions, and if circumscribed then convulsions occur in definite groups of muscles, as is observed in Jacksonian epilepsy. A destructive lesion in the

same area of the brain will cause paralysis of the same group of muscles, but the paralysis is of the spastic type, which shows that the contractility of the muscles maintained by the lower motor neurones in the cord is exalted, either by removing the restraining influence of the cortical set, or by irritating the lower through the degeneration of this higher group. With regard to tactile sensation, the researches of Sherrington, Campbell, Bolton, and others show that these afferent sensations arrive in the cortex of the parietal lobe by way of the optic thalamus—which probably modifies impulses from the periphery—and are closely related to the efferent motor discharges. Tactile sensation is the most general and universal source of knowledge of the environment in the vertebrata, and it is this region, possibly the “kinesthetic area,” which is affected in sensori-motor disturbances and gives the individual his personality. As to the neurone, its body not improbably exercises a trophic influence over the neuraxon, which also in turn exercises some temporary influence upon the cell body, whereas the protoplasmic dendrites, by their arborizations with axis cylinder collaterals and by their extensive branchings over minute blood-vessels are both centripetal organs for collecting nervous impulses, and nutritive channels for the supply of food material. We know the effect of most poisons to be upon the nutritive substance of these neurones, and, with the possible exception of the tetanus toxin, not to be upon the nerve fibres or stereoplasm of these cells. We know little of the cortical areas other than those which are sensory and motor, or both, and which are described as “kinesthetic,” and possibly two-thirds of the human cortex is concerned neither with motion nor sensation, and it is this portion of it which differentiates man from other vertebrates. This remaining portion has been described by Flechsig as the great association area. It is said to be concerned with judgment, comparison, believing, and originating actions, and to be functionally the highest area, involving the most complex intellectual processes. This region, physiologically, is therefore the most highly developed, the least organized, and the most complex of all the cortical areas and in consequence the most likely to be disturbed by adverse stress. In considering functional mental diseases one cannot but be struck with the different reactions to stress of individuals in different families. We know of some families with suicidal impulses, in which mental depression caused the suicide of grandfather, father, and son, each in his turn at corresponding ages. Of all forms of mental affection, that associated with suicide is the most often inherited, and of 1705 males under my care, suicidal tendencies occurred in 27 per cent. In 200 of these latter, a direct history of ancestral insanity was noted in 43 per cent., and a collateral one in 27 per cent. We

meet with an epileptic parent with more than one insane child. I have had under my care in an asylum, a father and at different times five of his children, and it is quite common to meet with father and son or sons suffering from insanity and frequently in the same asylum. Also, insanity appears to have hereditary equivalents; for epilepsy, hysteria, hypochondriasis, chorea, alcoholism, and crime, may appear interchangeably in the descendants of insane persons. Even genius, which is a departure from the normal type, is not infrequently met with among relations from an insane stock. Not a few among the patients in city asylums, or among their relatives, are inventors and patentees. In no department of medicine is the question of family inheritance more marked than in the practice of nervous diseases, and it is not ideas or diseases themselves that are transmitted as we see by the interchangeable equivalents already referred to, but a "tendency" or a natural proclivity to nutritional disturbances and manifested mainly at one or other of the important and critical periods of life when a strain or a stress ordinary and habitual to the stable person and easily borne by him, may in those with family history of insanity cause a mental breakdown. Man is an agglomeration of organs, and the healthy life of man is the harmonious co-operation of all these dissected elements, each of which in health contributes to the total well-being, each also being capable of resisting disintegration through adverse circumstances, according to its own special stability. This tendency is familiar in the practice of all hospital physicians who observe the liability to nutritional disturbances in other organs, such as the liver or kidney, or in groups of organs such as these with cardiovascular affections, and also by the appearance of malignant disease passed on, so to speak, from parent to offspring.

Now mental reaction greatly depends upon the character of the afferent stimuli brought to the cortex from the various sense organs, and it is interesting to note that the sense of smell (the least informing to man in regard to the external world) is phylogenetically the oldest, being most highly developed in the lower vertebrata; some fishes, for instance, having as Dr. G. F. Watson has shown, relatively the greatest central representation for it. This sense is therefore the most organized and it is rare for the sense of smell, or even taste, which also gives little knowledge of the external world, to be affected in insanity. The two senses which supply man with means of communication by speech, writing, and reading are sight and hearing; together they are pre-eminently intellectual, they are exact and analytic and are on a higher plane in man than are any of his other senses, but they are the most frequent to be disturbed in cases of highly evolved insanity. Touch, the most general of the senses, is less intellectual

than either sight or hearing, but it is the one most commonly disturbed in that "lower level" form of insanity associated with hysteria, and to which we shall again refer. As to the senses, illusions form a common psychic phenomenon in insanity and it is doubtful—unless they are unilateral—if mental illusions are ever peripheral. Both illusions and hallucinations may be physiological, that is, they may be temporary in their duration or they may come and go. We meet with cases of insanity in whom these perversions are not constant; there are periods during which those who suffer from them are suddenly quite free and remain so for indefinite intervals, a condition which suggests that the fundamental process is nutritional and functional; possibly the fine dendritic processes of the neurones are temporarily disturbed, as they are known to be in cases of injury, when mental unsoundness is characterized by loss of memory of the accident, but which ends in complete recovery. It is a short step from illusions and hallucinations to delusions, which are ideas conceived upon false sensory impressions or perceptions. We are familiar with deceptive impressions produced by diplopia, scotomata, photopsia, disease of the peripheral nerves, and exotic sounds of various character, all of which may be due to nutritional disturbances and none of which can be considered to be insanity. Delusive ideas, like hysteria with contractures, may in time be accompanied by organic changes, but in their early stages they are more often functional, for other associations may grow and eject them. It is the consequence of delusions rather than their cause which makes them pathological and it is their projection outwards which eventually causes them to be regarded as insane delusions. So long as we are dealing with the external world, our facts of causation are simple and apparent, but when we pass to ideas—questions relating to "self"—we are face to face with "consciousness" and we are unable to analyze either the consciousness of others or what have been described as our own "unconscious physiological processes," conditions often referred to in hysteria. We can only state that the cause thereof appears to be psychological phenomena. We do not know even what the various elements of mind may be, but we can relate the different ways in which consciousness may refer to an object, viz., as being pleased with it, desiring it, and remembering it. We do know, however, that the various elements implied in cognition and feeling, when displayed in correct association and under proper control do give us healthy mental reaction; when these are impaired or their combination is affected, then the prominence given to any one factor possibly implicates all the others, and illusions, hallucinations, or delusions result. The delusions met with in insanity—whether functional or organic—are as various as the manifestations of human

thought, and we can only say in regard to them that some stimulus probably excites a group of cortical neurones, and a kind of "intercellular tetanus" gives rise to a play of ideas, which, when the excitations are transferred to motor fibres, are associated with action. In health the steady current of nerve force flows evenly from center to center and there is equilibrium between the various groups of cortical neurones, the stream of nerve force also flows down the pyramidal tracts and controls the spinal centers, keeping the muscles in a state of healthy tone. All the neurones are probably in a high state of chemical tension and any nutritional disturbance means explosion followed by exhaustion, a condition which we possibly find in all functional diseases.

What is the characteristic feature of functional diseases and what are the forms of mental abnormalities which come under this description? Speaking generally, we are correct in stating that functional diseases are characterized by their lesser duration, their slight and transitory character and their recovery, and this is the standpoint from which we urge the consideration of the subject under discussion.

It is not improbable that hysteria is at the root of most of the mental conditions in women that come under the observation of the asylum physician. It is as definitely related to mania in women as hypochondriasis is to melancholia in men, and both are conditions pre-eminently functional in their pathology. Hysteria may be looked upon as a temporary sensori-motor disturbance with a psychosis, and the sensory disturbances of hysteria indicate that there is a participation of centers lower than those connected with mental symptoms. Hysteria is a "lower level" form of insanity, which to some extent is under the control of the higher centers; whereas insanity is an affection of the highest levels, and therefore a disturbance of the highest intellectual processes themselves. In hysteria the tendency was for action to follow upon afferent or sensory impressions, whereas in case of insanity, action followed delusions. Sensory disturbances effected results in hysteria similar to "fixed ideas" in variety and as in hysteria, one cause or a summation of causes may bring on various effects, so in insanity one overwhelming psychosis or a series of small worries and anxieties may cause the mental symptoms.

The greater number of women admitted into asylums during the adolescent period of life suffer from insanity of a transitory type, as is evidenced by the fact that of the women admitted under the age of 25 years into the London asylums during 1903, 53 per cent. were discharged recovered, whereas the recovery rate based upon all ages was only 34 per cent. This type of insanity is often dependent upon anomalies of health, such as anemia, amenorrhœa, simple exhaustion, the strain of modern

life, and disturbances of the emotions, and it passes off with improvement in the general health, and nearly 50 per cent. of all the women who were discharged recovered left the asylums of London under six months' residence. There is no definite hysterical psychosis, although most of these cases are exceedingly unstable and sudden in their mental reactions, which is shown by their capriciousness, irritability, and sentimentality; being at one moment joyous, at another sad and tearful, but without obvious reasons for the change. In the intervals between hysterical attacks they are bright, intelligent, and cheerful. These cases are always exceedingly responsive to suggestion, and the various forms of paralysis they suffer from are either assumed by suggestibility, or they recover by suggesting or diversion, the moral treatment frequently referred to as asylum treatment and implying a change of function. There is often a loss of memory which renders hysterical patients self-contradictory, but the amnesia is not limited to ideas, there is amnesia of the "kinesthetic" elements as well. There is no recollection of the movements of a limb, showing that the sense of muscular impressions—probably registered in the Rolandic area—is functionally in abeyance, the various movements with their images fail to be preserved and reproduced owing to the functional disturbances giving rise to a condition called "kinesthetic anesthesia." Amnesia in these cases may be so marked that all past events in their life may be completely deleted, their memory only returning with or after another paroxysm. Such cases are rare, but a classical description is given of sudden transformations by Dr. Albert Wilson in his record of a case of "double consciousness," or dual personality. These occurrences quite justify the definition of hysteria as a "disintegration" of the personality. The weakening of will power is a distinct feature in these cases, many women being quite unable to carry on their ordinary avocations and having no power even to answer questions. The prominence of the sensori-motor disturbances gives rise to vociferous singing, laughing, and dancing, or the patients in their excitement break windows, tear clothing, shout, scream, and behave extravagantly, which indeed most frequently results in their being brought under treatment. These seizures, followed by lethargy, together with the mental state, have caused such cases to be mistaken for epilepsy, and I have received cases in which the seizures and symptoms were described as due to this cause, but which were really cases of hysteria. I have also received cases in which these statements were made in the medical certificate, but the fact of coming under treatment and being brought to the asylums has acted as a shock of surprise and no further demonstrations of excitement have taken place. The suddenness of these states and

their variability harmonize with the suggestion that these are nutritional disorders and not organic lesions. Of all the physical symptoms of hysteria, anesthesia or disturbances of sensation are the most constant, and cases are familiar to most hospital physicians of patients who were completely helpless upon admission, yet who could move their legs in bed or push their feet against an object, but could not stand or walk, yet with the stimulus of a strong emotion or a new suggestion they have walked easily, possibly after weeks or months of bedridden helplessness. The anesthesia in hysterical cases is somewhat pathognomonic. It may be in islets of skin not corresponding to any peripneral nerve distribution or that of blood-vessels, neither does it conform to any spinal distribution and it is not segmental or embryonic in character. It is total and complete, and corresponds with a cortical area having associated or systematized functions. Hysterical patients are not conscious of their loss of sensation, the loss does not come into their personality and there is in consequence a "shrinkage" of consciousness. Such is not the case in the anesthesia of gross lesions, which further suggests cortical affections. The cortex, moreover, besides sensation, controls the emotions, the heart's action, respiration, speech, and voluntary movement. All these may be, and often are, affected in hysteria.

In the condition described as *astasia*, there is no definite paralysis, but the patient is unable to stand, and in *abasia* he falls when attempting to walk, although he can skip over a rope or walk on tip-toe. Moreover, in conditions such as "writer's cramp," and in the various and numerous other occupation neuroses, there is paralysis of different forms, but at the same time there is complete control over the hand, which can accomplish any movement other than that which caused the paralysis. Such clinical facts as these distinguished between disturbances of function and disease of the organ—a theory which is thus capable of explaining the phenomena. The mental symptoms of hysteria are vividly portrayed in mental epidemics, such as are initiated by the so-called "Revivalism," as also in cases of "possession" or "demonomania," cases of witchcraft and "cures" at holy shrines.

Another functional condition which merges into insanity is hypochondriasis. It is as closely related to sensation as hysteria is to the emotions. There is a feeling of profound illness and a tendency to exaggerate and brood over the feelings, which give rise to morbidly conscious states. The whole of the person's attention is concentrated upon his sensations, but there is nothing abnormal to be discovered at the periphery, and the functions complained of appear to be physiologically healthy. If in hysteria there is a cortical absence of certain sensations—which may determine anesthesia and paralysis, in hypochondriasis there may

be cortical hyperesthesia of sensory areas. Whether these conditions are due to exhaustion, or to some influence which modifies exhaustion, and which brings these sensations into undue prominence is not easy to ascertain. If, however, hypochondriasis be of long duration, the mental state associated with it tends to become fixed, which supports the view that long-continued functional disorder tends to become organic, as we see when hysterical contractures are accompanied with sclerosis of the corresponding pyramidal tract. It has been experimentally proved that peripheral electrical stimulation continued for long periods may give rise to structural changes in the brain. There are many borderland cases whose depression may be diverted by functional treatment; cases which a change of occupation relieves and which thus recover.

A condition often met with in highly-wrought, able, and overworked men and women and now described by the term neurasthenia, is somewhat allied to hysteria. There is hyper-sensitiveness in both, but there are no sensory disturbances in neurasthenia, no motor paralysis, no fits and no contractures, although neurasthenia may occur in hysterical subjects. There is simply fatigue and increased excitability with muscular weakness, and it is a symptom-complex rather than an entity. There is the same difficulty in fixing the attention and the same deficiencies of memory as in hysteria. The condition is probably the result of long-continued mal-nutrition and ill-health, and is favored by civilization and city life, by heredity and by various excesses. Of the exciting causes, possibly, influenza, is as potent a factor as any, especially when acting upon an already exhausted constitution. I have seen many such cases outside the asylum, not seldom among the "prize winners" in life; and although nature is generally uniform in her lesions, this functional state being of long duration, is known to end in confirmed organic brain changes and chronic insanity, demonstrating its analogy to the contractures accompanied by organic lesions in cases of protracted functional hysteria. A state of mind bordering upon insanity is that of mental depression without delusions, the condition described as "*folie raisonnante déliré*." There is no other functional disturbance and the sufferer is for a varying period in this state of unrest when suddenly equilibrium is established and the phase passes off.

Another functional condition which is responsible for at least 8 per cent. of all cases of certified insanity is epilepsy. The abnormal mental states associated with epilepsy are unlike ordinary insanity, for those who suffer from it are more altruistic and they are less under the sway of delusions, but suffer more frequently from sensory disturbances. The mental states of

epilepsy seem to be halfway between those of hysteria and true insanity, the sensori-motor disturbances are present and so also are those of consciousness, which latter during the fit is completely in abeyance, yet it must be owned that there are no definite lesions in cases of idiopathic epilepsy. Of all mental states in relation to the fit, that of post-epileptic automatism is the most inexplicable. After an epileptic fit a person will occasionally lose all memory of past ideas, he will wander about, take a new name, forget wife, family, and domestic attachments, assume a fresh occupation and oblivious of the past start upon a new life and remain in this fresh environment for an indefinite period, or until another fit brings back his recollection and he returns home after a complete functional "topsy-turveydom." Some such occurrences in less striking forms are frequent, and are closely related to hysteria, but as they suddenly change, they remain unexplained by any organic or structural theory. I have recently had under my care three men certified as insane after a "fit" of some kind which completely erased from the memory events in their previous life and leaving them with a new personality.

In ordinary daily life we often find after fatigue that there is considerable difficulty in fixing the attention, we have a weakened grasp of our subject and cannot recollect a lost word—there is difficulty in expressing our ideas in words. Long after we need it, the missing word appears—possibly in association with some remote expression, and we are unable to explain the phenomenon except upon the theory of disordered neuronic function. It has been pointed out by Gowers that the most common effects of over-use of the brain are sensory, and evidenced by some disturbances in the feelings which, as he states, are appalling in their variety and degree. This view, in my opinion, coincides with the evolution of insane ideas which are based upon sensory anomalies; but what it is that causes these functional disturbances is not so clear. Hodge describes a swelling but not a destruction of the cellular protoplasm in conditions of fatigue. Possibly some products of nervous overaction fail to be eliminated, and either poison the store material of the nerve cell or interfere with some obscure electrical or radio-active action at the synapses. As Gowers further states, we cannot estimate the cumulative effect to which a minute original variation in the nutritive material of a nerve cell may give rise, but we have experience, and are aware, that function can alter structure. In regard to some of the allied neuroses, cases of "convulsive tic" seem to me closely related to cases of delusional insanity and impulsive obsessions, those of neuralgia and megrim, of tetany and cramp, also closely resemble in their suddenness and intensity those of various forms of epilepsy. I have seen tetany associated with mental

depression, following exhaustive diarrhea, and both have cleared up with improvement in the general health. These neuroses with chorea, and para-myo-clonus multiplex seem to me to be heirlooms of psychopathic and neuropathic families, and so far as it is at present known are without definite structural pathology. I have at present under my care a case of para-myo-clonus with mental symptoms, who is one of three members of the same family similarly affected. The mental state of patients suffering from what is styled "dementia precox," in my opinion seems to be closely allied to functional states, some of which appear to be physiological. The mental pre-occupation of ordinary normal health, for instance, bears much resemblance to the abstraction of these demented youths, and it may not be unreasonable to look upon the latter as functional states, for a few of these persons recover quickly, the symptoms are of short duration and vary from slight moody self-absorption to complete lethargy and stupor. Moreover, the mental symptoms probably occupy the same nervous regions, they are provoked by the same causes and are executed by the same mechanism, whether the condition be functional or organic. It is unlikely, however, that long-continued stupor can exist without organic change in the pyramidal cells of the cortical area, as functional activity stimulates nutrition and is beneficial; whereas, its suspended activity means a decreased blood supply and therefore a slower removal of used-up products and less nutritive plasma.

The normal physiological condition of pregnancy is another process with mental symptoms. It is a function which involves the reproductive organs and affects the whole organism. The function of reproduction covers most of the elementary excitations of which man is capable, and is one of the most imperative and fundamental of the activities in nature. It is accepted that gestation is attended with a great deal of nervous disturbance in all women, the intimate sympathetic connection of the mammæ with the gravid uterus giving rise, even in normal persons, to various forms of neuralgia, headaches, dizziness, and insomnia, which may be so extreme that irritability, fractiousness and despondency of a serious character ensue, yet these conditions completely pass off in the majority of cases when the fulfilment of this process is complete.

I purposely avoid any reference to the many toxic insanities, although the confusional delirium and the acute hallucinatory states accompanying alcoholic intoxication, pernicious anemia, puerperal toxemia, cocaine, morphine, pellagra, and other poisons closely simulate those of febrile diseases and coma. Possibly that condition described as dipsomania, the longing or craving for stimulant is a functional state. It is like other similar states

without any organic pathology and like them also one that occurs in persons with a tainted family history—psychopathic or neuropathic.

I do not think I need go further than to draw two conclusions from the imperfect consideration of this long list of functional mental and nervous diseases. Firstly, the necessity for maintaining a sound heredity. Secondly, to urge that all cases presenting mental symptoms should be brought under treatment as soon as possible, for minute variations in the nutritive plasma may effect serious results upon and cause distressing disturbance is the essential element of nervous tissue, as functional mental diseases of long standing in an organ such as the brain—which is the slowest to reach maturity—may cause organic and incurable insanity.

D. C. M.

## *Selections, Abstracts, Etc.*

### FURTHER OBSERVATIONS ON THE TREATMENT OF SUMMER COMPLAINT.

BY C. C. CRONKHITE, M.D., MARION, IND.

LAST year I reported some notes on an epidemic of dysentery which prevailed several years ago in Marion. Among the twenty-three cases recorded only two terminated fatally, and I believe that even these would have recovered with careful nursing. Owing to the severity of this epidemic the results obtained were unusually favorable, and are attributable in great part to the treatment adopted. In these cases it is very important to control the exhausting mucous and bloody discharges from the bowel and for this purpose it is necessary to select an astringent which will exert an effect on that portion of the intestinal tract which is affected by the disease. The majority of astringents are unsuitable for this purpose, owing to the fact that they are absorbed or rendered inert in the upper portion of the intestine, so that the amount that finds its way into the lower portion is insufficient to produce any curative action. Moreover, it is very important in these cases not to administer remedies which may disturb the digestion, and this is very likely to happen with the astringents in common use. The attempt has been made in a number of the new astringent preparations introduced in recent years to overcome this objectionable feature. Of these, I employed tannigen with great success in the above epidemic. Its administration was unattended with the least gastric irritation, this being attributable to the fact that the drug is insoluble in the gastric juice. In the intestinal canal, however, the drug gradually yields up its tannic acid constituent, owing to the action of the alkaline fluids, and this liberation of tannic acid is particularly marked at the points where the secretion is most abundant; that is to say, at the site of the disease.

Since reporting my observations with tannigen I have had an opportunity of making a further study of its properties during last summer, and would cite a number of cases from among those treated, in order to throw further light upon its mode of action.

CASE 1.—Babe, fourteen months old; frequent, large, watery and offensive stools, which condition had existed for thirty-six

hours. I gave tannigen in three-grain doses every hour until four doses were taken; then at intervals of four hours; also teaspoonful doses of elixir of pepsin with food, and ordered rectal douches night and morning. Recovery after one week.

CASE 2.—Mrs. S., twenty-five years of age; vomiting and purging for four days, for which she had been taking home remedies. I prescribed a brisk cathartic, and followed with ten-grain doses of tannigen every two hours, until the actions of the bowels were checked, and then gave it every four to six and eight hours as needed. Recovery after three days.

CASE 3.—Babe, four months old, had been under the care of a doctor for a week. Frequent, watery and musty stools, green and full of undigested milk. Nursing at the breast discontinued for twelve hours; sub-chloride of mercury was given in minute doses hourly for six hours, followed by tannigen, two-grain doses, every two hours, until the movements were checked, then every four hours. Disappearance of the diarrhea after seven days.

CASE 4.—Girl, two years of age, had suffered for twenty-four hours. Vomiting and purging from eating a large quantity of green corn. I again gave calomel, followed by ten-grain doses of tannigen. The vomiting ceased after three hours, and the diarrhea after forty-four hours.

CASE 5.—Babe, two months old, had been allowed green apples, which caused diarrhea. Yellowish green, mucous and fetid stools hourly. I ordered the rectal douche night and morning, and tannigen three grains every two hours, and later four to six hours. The father reported on the following morning that the child was greatly improved. Recovery in four days.

CASE 6.—Girl, twelve months old; diarrhea of two days' duration; ten to twelve whitish-yellow, offensive and copious stools in twenty-four hours. Treatment commenced by trituration of calomel every hour till the evacuated matter assumed a more normal consistency and color; then tannigen, in three-grain doses, every three hours until its effect was produced, and then every four hours. Recovery complete in ten days.

CASE 7.—Girl, six months old, bottle-fed. Diarrhea for four days; copious green, watery and offensive stools, occurring every one or two hours, during the day and night. Loss of appetite and sleeplessness, and great thirst and vomiting. All food was stopped for twelve hours, and the bowels moved thoroughly with calomel; this was followed by my usual remedy—tannigen. In this case I was compelled to prescribe a small amount of opiates to relieve the pain, but all the time continued the use of tannigen. This child has not fully recovered, and is in a precarious condition.

CASE 8.—G., forty years of age, ate an unusually hearty sup-

per, and awoke the next morning with severe vomiting and a diarrhea that kept him "on the jump all the time." I gave him 15-grain doses of tannigen every hour until the action of the bowels was checked, then at intervals of four or five hours. I also used in this case half-grain tablets of opium and camphor to relieve pain. Patient out in two days.

CASE 9.—Mr. H., thirty-nine years of age, teamster; was seen by me at 9 a.m. The bowels had moved ten times during the previous night. Intense thirst and nausea and severe abdominal pain were present. This case was treated similarly to the above. Recovery occurred in two days.

These are a few of the many cases of diarrhea treated during the past year with tannigen. The reader will observe that I gave the drug alone, and I have obtained better results by so doing. I have tried the various formulas with tannigen, but was not pleased with the results.

Tannigen is almost devoid of taste and children take it readily. Its action is quick, powerful and effective. When called to a case at the commencement of diarrhea no preliminary treatment is needed, but I begin at once with tannigen, giving small, oft-repeated doses, rather than large ones. Where cases have received "home treatment" for several days, a calomel purge is an excellent preliminary step, and this is to be followed with tannigen. To the doctor who has been in the habit of treating diarrhea with castor oil and other nauseous drugs, tannigen presents the advantages of being well tolerated by the child, and thus pleasing the parents. I have not had a death so far this year from summer complaint. It is of the utmost importance to restrict the diet and prevent the child from receiving too much fluids. There is a desire on the part of the parents to do this, and they must be closely watched by the doctor.—*Atlanta Journal-Record of Medicine.*

**ON SOME EXTRACTS FROM THE DIARIES OF BISHOP  
NICOLSON.**

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IN an editorial article in this journal towards the end of 1903, reference is made to the medical knowledge of the Middle Ages to be found among religious manuscripts hidden away in monasteries or other repositories of learning in Europe. At a later period much interesting information of a medical character is to be found in the diaries of famous ecclesiastics. Portions of the diaries of a famous English bishop of the eighteenth century have lately been published in the *Transactions of the Cumberland and Westmoreland Antiquarian and Archaeological Association* under the able and sympathetic supervision of the Bishop of Barrow-in-Furness, into whose hands the valuable manuscript diaries have fortunately fallen. With his consent I have had a careful examination of the diaries made, and all entries of medical interest carefully copied. It is my intention to make a few commentaries on such of these entries as seem suitable for publication in a medical journal, but before doing so a few particulars of the life and character of the author of the diaries will help to make this paper more intelligible.

Bishop Nicolson was a notable man in his day. His father was the rector of a country parish in Cumberland, and on June 3, 1655, the author of the diaries was born. He was educated at first at a country school, and matriculated at Queen's College, Oxford, in 1670. In 1678 he spent some time at Leipsic, at the expense of Sir Joseph Williamson to learn German, in which language many entries in his earlier diaries are written, especially those which he did not wish to be easily read by persons around him. In 1679 he was elected Fellow of his college and ordained deacon. In 1681 he was collated by Bishop Rainbow to the first prebend in Carlisle Cathedral, and in 1682 he was appointed to the Archdeaconry of Carlisle. He was consecrated bishop of Carlisle in 1702, was translated to the Bishopric of Derry in 1718, and to the Archbishopric of Cashel in 1726-7, but died on February 14 of that year before taking possession of his new see.

The diaries give the impression of a man of great bodily and mental activity, keenly interested in history, archæology and botany. There are many entries relating to medical matters, and some of them have been published in the transactions above re-

ferred to, but others have not yet appeared in print. The first entry to which I wish to call attention refers to

#### TOUCHING FOR THE KING'S EVIL.

1684.—July 14. In ye morning King's musick at the bed-chamber, as usuall on Mundayes. Touching for ye evill in ye Guard Chamber. Dr. Montagu held the gold. Water brought to ye King by ye Vice-Chamberlain.

1708-9.—March 28. Visitted by Mrs. Roose who wants the Queen's touch for her daughter.

This practice of touching for the evil boasts a very respectable antiquity. Most writers seem agreed that the first monarch who possessed the gift of healing was Edward the Confessor, who reigned from 1042 to 1066, but only one instance is recorded of his using it, and that by a historian (William of Malmesbury) who wrote his history about eighty years after the king's death. Dean Stanley, in his *Historical Memorials of Westminster Abbey* (2nd ed., p. 13), says in referring to the Confessor, "there was a kind of magical charm in his thin white hands and his long transparent fingers which not unnaturally led to the belief that there resided in them a healing power of stroking away the diseases of his subjects." The account which Shakespeare gives of the healing touch by this monarch will be found in *Macbeth*, Act IV, Scene 3, but it is obviously based on knowledge of what was the practice in his own day, as he speaks of the king using prayers and giving gold, which was probably not in circulation before the time of Edward III. Malcolm (a fugitive from his own kingdom after the murder of his father, and residing at the Court of Edward the Confessor) describes the healing in these words:

MALCOLM. 'Tis called the Evil :  
 A most miraculous work in this good King ;  
 Which often, since my here-remain in England,  
 I've seen him do. How he solicits heaven,  
 Himself best knows : but strangely-visited people,  
 All swoln and ulcerous, pitiful to the eye,  
 The mere despair of surgery, he cures ;  
 Hanging a golden stamp about their necks,  
 Put on with holy prayers : and 'tis spoken,  
 To the succeeding royalty he leaves  
 The heavenly benediction.

There is no record of any healing touch having been practised by any of the four kings of the House of Normandy. William the Conqueror was probably too much occupied, as one historian remarks, with killing those who were well, and "the uproarious sons of the Conqueror affected no share in the sacred mesmerism

of their saintly predecessor. They manipulated the sword, the lance, and wine cup, occasionally knocked healthy people on the head, but carefully eschewed the company of the sick." (Miss Strickland's *Queens of England*, vol. xi, p. 105.)

Henry II, the first of the Plantagenet kings, emulated the Conqueror, but it is recorded that Edward I. healed one hundred and eighty-two persons by the touch. The practice was continued by all succeeding monarchs down to the time of Queen Anne, who was the last English sovereign to touch, and during her reign the royal healing service was first added to the Book of Common Prayer, just after the thanksgiving for her accession.

Among the latest, if not the last, for whom the royal touch was used, may be mentioned the celebrated Dr. Johnson, and in Boswell's life of this distinguished lexicographer (London, 1824) vol. 1, pp. 17, 18), there is a full account of the case. In some reigns enormous numbers were brought to receive the supposed benefit of the royal touch. In the reign of Charles II. the register kept of such cases shows that the number touched amounted to 90,798. The greatest number touched in one year was in 1682, when 8,447 were registered. This is only two years before the date when the writer of the diaries saw the process which he describes. Physicians, surgeons, and ecclesiastics all had great faith in this cure. Gilbertus Anglicus, a physician of the time of Henry III and Edward I, says scrofula is called King's Evil because the kings have power to cure it. John of Gadsden, physician to Edward II, advises recourse to the royal touch in desperate cases. Dean Tooker, one of Queen Elizabeth's chaplains, testifies that many wretched sufferers were restored to health by the queen's touch, aided by the prayers of the whole church. Clowes, surgeon of St. Bartholomew's and Christ's Hospitals, in writing of scrofulous ulcers, says:

"These kinds do rather presage a divine and holy curation which is most admirable to the world, that I have seen and known performed and done by the sacred and blessed hands of the Queen's most Royal Majesty."

On the accession of William III the healings ceased for a time, the king being persuaded that the sick would not suffer by the omission. On one solitary occasion he was importuned into laying his hand upon a patient, and he said, "God give you better health and more sense." Each person touched received a gold coin from the royal hands during the ceremony.

The touch pieces, or "healing medals," one of which was given to each person, were at first made of gold, and the coin was called an angel noble because it had the figure of an angel on the reverse side. In the reign of Henry VII the angel noble was the smallest

gold coin in circulation, and it was in this reign that a ritual religious service was first instituted. The office of Prayers at the Healing is to be found in many of the older prayer books, and as late as the reign of George II, in a Latin prayer book, published in 1744, there appears the *Forma Strumosos Attractandi*.

The kings of France also claimed the right to dispense the gift of healing. Laurentius, first physician to Henry IV, was indignant at the attempt to derive its origin from Edward the Confessor, and asserted that the power commenced with Clovis I, the first Christian king. It is recorded that Louis XVI on his coronation in 1775 touched 2,400 individuals. He touched each one by making a cross on the face and saying, *le roi te touche, Dieu te guérisse*.

#### DR. CARDANO AND THE ARCHBISHOP OF ST. ANDREWS.

1685.—March 30. Dr. Jemmison's cure for ye growing in of ye Liver, practiz'd by Cardang upon ye A. B. of St. Andrews. Pouring cold water suddainly on Him, after warm'd with oils.

Cardan, or, in the Italian form of the name, Cardano, was famous as an astrologer, mathematician, and physician. He was born at Pavia in 1501, and in 1551 one of the most interesting episodes of his life occurred. He was summoned to Scotland as the medical adviser of Archbishop Hamilton of St. Andrews. The archbishop was supposed to be suffering from consumption, a complaint which Cardan had represented himself as competent to cure. He is said to have been of great service to the archbishop, whose complaint proved to be asthmatical. Cardan was famous for his advocacy of the use of cold water, and may take rank with many physicians of earlier times, such as Asclepiades of Prusa (90 B. C.), surnamed cold bather; Antoninus Musa (30 B. C.), famed for his cure of Augustus by cold water; Galen (130 A. D.), Rhazes (923), and Avicenna (1036). Raymond of Marseilles (1755) gained a prize for the best treatise on the application of cold water in disease. It is interesting to note that Cardan's use of cold water was remembered and recommended by a physician more than one hundred years after his visit to the archbishop. I have no clue to the identity of Dr. Jemmison. He may have been Dr. Jameson who took his degree at Oxford in 1668, became a candidate of the College of Physicians in 1671, and afterwards practised in London and Paris.

#### CONTRACT MEDICAL PRACTICE IN THE EIGHTEENTH CENTURY.

1698.—June 16. Mem.—Agreed with Dr. Pearson that he attend myself and family as often as our occasions shall require,

when he is not letted by other necessary attendance elsewhere; and that I am to pay him therefore every Martinmas two guineas.

Witness:

Mr. Farrington,

Mr. Ion,

Mr. Corney.

Jan. 13. Tooth drawn.

Accounts.

Jan. 13. Tooth drawn. 0.5.0.

The first of these entries shows that contract medical practice was not unknown two centuries ago, and it is obvious that the honor and glory of attending a distinguished ecclesiastic must have counted for something. The payment to the "tooth drawer" seems liberal in comparison with the annual salary of the family physician.

#### THE BISHOP'S LICENSE.

1706.—May 10. Mr. Blacket, an Irish Surgeon, applies for a License.

1711.—July 3. Licenses to a surgeon at Burgh & schoolmr. at W'meloc.

Aug. 16. Mr. Henker licens'd Chyr'.

1713.—Aug. 5. A. D. Fleming an earnest dissenting suitor for a physick-license to Mr. Rigby, a dissenting preacher.

In the early days of the history of medicine the practice of the profession was mainly in the hands of ecclesiastics; and in course of time certain guilds and colleges were established. In the third year of the reign of Henry VIII (1511), owing to the quarrels of the said guilds and colleges formal application was made to parliament on the ground that the practice of physic was improperly supervised, and had fallen into the hands of smiths, weavers, and women. An act was obtained which gave power to ecclesiastical authorities to grant licenses to practice medicine and surgery. Under the provisions of this act any person was forbidden "in the city of London or within seven miles of the same, to take upon, to exercise or occupy as a physician or surgeon except he be first examined, approved, and admitted by the Bishop of London or the Dean of St. Paul's for the time being." Each of these dignitaries was required to associate with himself four doctors of physic before granting a license in medicine; and for surgery other expert persons in that faculty, who were to certify after due examination as to the fitness of the candidate. Midwives were also licensed by the same authorities, and readers of Sterne will remember that in *Tristram Shandy*, the first edition of which was published in 1759, Parson Yorick, upon the installation of a midwife in his parish, cheerfully paid the fees

of the ordinary's license himself, amounting in the whole to eighteen shillings and four pence.

#### ON SOME REMEDIES.

The following curious remedies are quoted:

1702.—May 27. Firr Tea, of shavings boil'd in two quarts of water down to one, and pour'd on 1-4 lb. white sugar candy for Hoarseness.

Nov. 8. Mr. Edward Finch's cure for ye collick, of griping of ye Guts, with 2 Quarts of Epsom Water; drunk hastily; of ye twisting of ye Guts wth an ordinary purge, and an addition of 2 grains of opium. Of a Rheumatism wth Spirits of Wine, Sal Ammoniac & Lavender in a fomentation.

Nov. 27. After dinner with Josh. Barnes at the B. of Norwich's. My Ld. took occasion (on Mr. B.'s complaint) to teach us two infallible remedies for bleeding at ye Nose: 1. Inky cotton, ye older ye better: 2. The patient's standing up to ye knees in hot water.

1701.—Feb. 16. Wild sage supplies ye use of Hops; Assafetida rubbed on ye dish ye best shalot.

1701.—Mar. 1. Sir Geo. Weny. gave me a long History of his life and troubles. . . . Sir G. a great eater of fruit all his daies; and had pippins prescrib'd for ye circulation of his blood.

Nov. 7.—Snuff of Asara Becca, very purging.

Brandy and Vinegar (with Infusion of Lavender-flowers and Rosemary) prescrib'd by Dr. Chambers for Sr. C's swelling. Strong beer, pepper and vinegar for same.

1702-3.—Jan. 10. Portugal-snuff an excellent remedy for a green wound.

#### ON REMEDIES FOR GOUT.

There are many prescriptions for gout from different sources. Archbishops and bishops seem to have prescribed for each other.

1704.—Dec. 26. A. B. of C. much in ye Gowt; for which my Ld. of York prescribes 50 drops of Sp. of Sal Ammoniac and Sal. Volat. Oleosu. mix'd in equal quantities; and ye B. of Sarum (as infallible) an Infusion of cloves in fair water.

1705.—Aug. 28. In medicine an easy purge by a Tea made of Sena and Scrophularia Major aquatica in equal proportions; and a sovereign drink against ye Gowt (sent to Dr. Middleton of Aberdeen from Dr. Schrader, ye publisher of Sylvius) by boyling two handfuls of Chamæpytis, instead of Hops, in 16 Quarts of wort; Tunn'd up & kept for ordinary drinking. It works wonders.

1711.—Mar. 10. N.B. A beer glass of simple distill'd water of sea and garden scurvy-grass (with ye juice of orange) sovereign medicine for the Gowt.

REMEDIES FOR STONE AND GRAVEL.

The two following remedies are selected from the diaries as of interest:

- 1705.—Sep. 14. Cous. Pearson's conversation singly. He saies ye Ribes Cinanchica, steep'd in Brandy is a specifick (abt. two spoonfuls in a morning) agt. ye stone or gravel.
- 1715.—Dr. Hickes' spl. sent relief in Fits of ye Stone. An ounce of powder'd Gum Arabic in a pint of warm posset. Drink. More effectual drops of Dr. Phrygenius; next door to ye Cock in St. James's Street.

A MEETING OF THE ROYAL SOCIETY IN 1705.

The society is usually considered to have been founded in 1660, and at first held its meetings in Gresham College. After the Great Fire of London in September, 1666, the apartments of the Royal Society were required for the use of the city authorities, and the society were therefore invited by Henry Howard of Norfolk to meet in Arundel House. The following entry, however, shows that the society at a subsequent period made use of Gresham College for the purpose of meeting, and gives an interesting account of the proceedings at one of their ordinary meetings. Under date Dec. 5, 1705, Wednesday, is the following entry:

The House not sitting to-day, I went (after dinner) to Gresham College: where I happily found ye Royal Society met, and had a lucky opportunity of being admitted a Fellow by (ye President) Sr. Isaac Newton. A letter was read, by Dr. Sloan, the Secretary, from a Chirurgeon at Harwich, giveing an Acct. of an extraordinary involution of the Gutts; wch occasion'd such an invincible stoppage, yt ye patient had not a stool in seven months before his Death. A Livonian Bible in 4to (printed at Riga in 1687) was presented, from a member resideing in those parts. Dr. Cockburn gave in a Discourse of his own, touching the weight of Humane Blood; and ye proportioning of medicines according to ye different gravity of that in Several Bodies. This was order'd to be publish'd in ye next monthly Transactions. These matters over, ye President & Fellows remov'd into ye adjoining Gallery; where Mr. Hawkesby, who had formerly entertain'd ym wth ye raining of Fire (in his Air-pump) and some other curious experiments on mercury, now shew'd 'em as odd phenomenon in striking fire in Vacuo.

## KING CHARLES AND HIS PHYSICIAN.

It is generally believed that the death of King Charles II was due to apoplexy, and the following entry in the diary, while supporting this view, points to the fact that the fatal attack was not the first which the "merry monarch" suffered from. The death took place in 1685, and under date Dec. 10, 1705, Bishop Nicolson writes:

Sr. Edmund King being Knighted for alleviateing ye King's first Fitt of his Apoplexy, Fleetwd Shepherd wrote under his picture:

"This Dr.'s skill may surely be rely'd on,  
Who cur'd ye Kg. of ye Disease he dy'd on."

## ON SOME MINERAL SPRINGS.

The following entries refer to certain medicinal waters which seem to have been in general use:

- 1684.—July 6. Walk'd to Barnet wells in the morning. The water has a tincture of allum; & purges by stool and ur' e. Near akin to yt at Cunnor near Oxford.
- 1685.—May 18. Mr. Weekes sett me to ye Spaws at Knaresborough. Sulphur Spaw very nauseous, & vomited as fast as drunk. Spaw ale.
- 1702-3.—Jan. 5. I took coach at St. James's for Kensington. Till Dr. Lampl. came home his sons carry'd me to ye gravel pits and newly discovered spaw. The water is exceedingly clear, and drinks soft and well; but tastes of no mineral. Its purging Faculty has been suppos'd to be communicated in ye summer by Art.
- 1704.—Oct. 18. Wednesday. Thence to Buxton; fine mountainous and rough. . . . the Bathing well is at the D. of Devonshire's House (an Inn, lett at 60 lb.) a little below ye village; and is abt. nine yards and five broad. The water is lukewarm. Of Buxton Well and its antient and modern state, see more in what Dr. Jones and Sr. John Floyer have written on' the subject.
- 1711.—June 20. Visitting ye spaw at Gilsland wells, more famous than it deserves.
- 1711.—Aug. 1. Wednesday. Mr. B. with me, visiting ye Iron spaw at Wigton.

So far as I can ascertain the wells at Barnet and Cunnor are not now in use. The former place is twenty minutes' railway journey north of London. Cunnor will be familiar to readers of *Kenilworth*, and is associated with memories of the unfortunate Amy Robsart. The popularity of Knaresborough has been

eclipsed by the neighboring town of Harrogate,\* the municipal authorities of which have spent large sums in erecting all kinds of baths, and thousands resort yearly to try the healing effect of the many springs which are to be found there. Buxton also has long been a popular resort, especially for the gouty. Gilsland is still frequented to a small extent, but although the writer is a native of the Wigton district, he is not aware of any chalybeate spring.

#### A FATAL CASE OF SMALLPOX.

1704.—Aug. 23. Thursday. In ye evening, news brought of Cous. Grace Tate's death; ye smallpox having flatted on her, being before weaken'd by a hard labour: And thus (on a suddain) her beauty drap'd in Deformity. *Quam fragilis!* This week I have had one or two nearer calls to think on my own latter end. For wch may my merciful God prepare me!

Readers of Sydenham will remember the very minute and careful observations which he made as to the prognosis of this disease, and how he refers to the dangers of the pustules becoming flat. In a copy of the *Works of Sydenham* by Dr. John Pechey, 1729, p. 86, there is the following statement of opinion:

"There are also other symptoms that sometimes arise from a cause contrary to those above mention'd, to wit, when the patient has been injured by violent cold, or excessive bleeding, without reason, or by being over purged, the pustules sometimes flat on a sudden, and a looseness supervenes, so that the patient, if he be adult, as we have hinted before, is in great danger, for the variolous matter being struck in, Nature is altogether unable to eject them as she ought by the Pores of the Skin."

#### PRECAUTIONS IN BLOOD LETTING.

1704.—Oct. 8. Mr. Railton, ye Apothecary, came to let me blood. But coming after Dinner, he found me too warm; and deferr'd it till to-morrow morning.

Oct. 9. Tuesday. I was blooded in the morning, on ye left arm, by Mr. Railton, ye Apothecary, who thought my Blood a little Inflamed. I bled so freely, yt ye orifice was not easily stopp'd.

It is probable from the above entry that the bishop as was usual at that period, had recourse to blood-letting in the spring and autumn. In the entries immediately before and after those referring to his bloodletting there is no mention of any illness,

\*Harrogate has been known as a sanatorium and health-with-pleasure resort for seven centuries. King John brought his Queen to Knaresburgh, whence she took the waters." But even in the days of Bishop Nicholson it was a very small place, and "its name was never mentioned in connection with its famous waters, which were known to the world under the designation of 'The Knaresborough Spaw,' for in that town the water drinkers were obliged to make their abode." (See "History of Harrogate," by William Grainge, 1617, p. 111.)

and on October 15th, six days after the operation, he states that he started with several friends to London, a journey involving a considerable amount of fatigue in those days.

#### MEDECINA GYMNASTICA.

1705.—Sep. 6. Dr. Pearson and Mr. Lowthian dined with us; and the former mightily in love wth Mr. Fuller's *Medecina Gymnastica*, by ye help of which he has set Sr. Ed. Hasell on his legs.

The work referred to in the above entry was erroneously attributed to Thomas Fuller, M.D., who took his degree at Cambridge in 1681, and was the author of several medical publications. In the Roll Call of the Royal College of Physicians, in referring to these publications, the author says that the *Medecina gymnastica* was the production of Francis Fuller, A.M., of St. John's, Cambridge, who died in 1706 (see Nichol's *Literary Anecdotes*).—*The New York Medical Journal and Philadelphia Medical Journal*, Dec. 9, 1905.

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#### ABSTRACTS.

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**Action of X-Rays on the Tissues.**—E. Dalous and J. Lasserre Toulouse (*Annales de Dermatologie*, Paris), write: The microscope reveals that there are certain special lesions due to the action of the Roentgen rays on the epithelium, an actual "radio-epithelitis," as Dalous styles it. Similar modifications occur in the tissue of a neoplasm, and as they develop they induce a macrophagic connective-tissue reaction. All the cells of the neoplasm do not feel the effect of the rays to the same degree, some being more sensitive than others. In the sound epithelium the basilar layer, or *stratum germinativum*, and the cells of the mucus layer, immediately above, are affected most, and the corresponding cells in an epithelioma. On the other hand, the cells of the prickle layer and of the horny layer are too firmly interlocked and too large to be effectually attacked by phagocytosis. The latter process, besides, seems to be secondary in importance. The histologic findings described explain why epitheliomata of the type of the canceroid and the squamous epithelioma are less favorably influenced by radio-therapy than epitheliomata of the baso-cellular type, columnar epithelioma and rodent ulcer. The Roentgen rays are decidedly elective in their action. The most sensitive cells in the neoplasm are those which are derived from cells which normally are most sensitive to the action of the rays.

In cutaneous epitheliomata, therefore, the squamous and the columnar types, the former are resistant to the X-rays and the latter succumb to them, corresponding to the elective action of the X-rays on the cells of the sound epidermis.

**Pathogenesis of Pulmonary Tuberculosis.**—F. Weleminsky, Prague (*Berliner klinische Wochenschrift*) has revealed the exceptional position occupied by the bronchial glands in the lymphatic system. Guinea-pigs were infected with tuberculosis at various points and the glands examined later. It was found that the infection never occurred through the blood, but always by way of the lymphatics. The bronchial glands seem to be the terminal reservoir, not only for the lung lymph, but also for the lymph from the rest of the body before it is poured into the blood system. When animals were inoculated in the peritoneum, rectum, or subcutaneously in the groin, at first it seemed as if the infection followed an arbitrary, erratic course, but the discovery of hidden glands showed the regular sequence of the progress of the infection, without an exception, in his last 300 experiments. The bronchial glands are like a kind of heart, into which the lymphatics from all sides discharge their contents, including tubercle bacilli from remote points of entrance.

**Relation of Fat to Infantile Marasmus.**—From a paper appearing under this title by A. Stern, New York (*Archives of Pediatrics*, New York) the following data may be gleaned. The overwhelming majority of cases of infantile marasmus occur in artificially nourished children. The gastrointestinal disturbances underlying infantile atrophy are very often due to the character of the food and not infrequently to its fatty contents. While the quantity of fat ailment has found frequent practical consideration, the chemical character of the fatty substances entering into the baby's nutriment have hardly ever been enquired into by the clinician. The composition of the fat of cow's milk is greatly at variance with that of the fat of human milk, differing especially in its far greater contents of volatile fatty acids, among which butyric acid is the most important. Butyric acid is the mother substance of the acetone bodies to the presence of which a number of disorders to which the infant is prone have been ascribed by various observers. Butyric, caproic, caprylic and capric acids are contained in the fat of cow's milk in from six to eight times the amount in which they are present in that of human milk. The infantile organism can not cope successfully with the fat of cow's milk even in a mere physical sense. This is evidenced by the decidedly smaller absorption of the fat compound derived from cow's milk than from human milk. The

occurrence in the feces of absolutely and relatively larger amounts of fat of cow's milk is *prima facie* evidence of its more incomplete utilization by the youthful organism. As the physical and chemical properties of the milk fat are dependent on the absolute and relative amount of lower and higher and uncombined fatty acids, it is evident that the vast discrepancy existing between the constitution of cow's milk fat and mother's milk fat can not be overcome by any possible modification of the former. Apart from the butyric acid origin of the acetone bodies we find that the volatile fatty acids as furnished by the fat of cow's milk are decided irritants of the delicate intestinal mucosa of the infant. The ingestion of these acids, therefore, is the primary cause of many instances of gastrointestinal irritation and disease followed by undernutrition and bodily retrogression. Alteration in the fat supply as exercised to-day is almost without exception a quantitative one, consisting of reduction, suspension and even increased supply of fat ailments. Withdrawal of milk fat in hand-fed infants frequently results in cessation of the local disturbance. It is obvious, however, that the infant can not exist for any length of time without fatty ingesta of some kind. Furthermore, the incipient marasmic condition can not be relieved unless a sufficient amount of assimilable fats yielding but insignificant amounts of volatile fatty acids is added to the nutriment. Yolk fat seems to be the ideal fat for infants suffering from chronic gastrointestinal disturbance, together with latent or even pronounced athrepsia infantum. Yolks should not find employment in the newborn nor in the infant which thrives on the physiologic nutriment or on a modification of cow's milk. Yolks should be used only in those pathologic conditions which may lead to athrepsia infantum and in those which are due to or aggravated by the fat constituents of the nourishment. There are two essentials which must be followed for good results from the ingestion of yolks, viz., the yolk fat must completely replace the milk fat, and the amount of yolk fat, without being in excess, must be adequate, that is, it must conform to the caloric and nutritive demands of the organism. The electrical conductivity of skimmed milk plus physiologic amounts of yolk fat is probably somewhat greater than that of native milk.

**Bronchitis in Children.**—In the common form of bronchitis in children that so often follows measles, whooping-cough, and acute infectious diseases in general, the following combination has been administered with good effect: Ichthyol, min. xxxii.; glycerini, spt. auranti, aa, ℥ss; aquæ, ad, ℥ii. The first dose often causes nausea, vomiting, but later the child grows inured to the taste of ichthyol. Children under one year of age do not

take ichthyol well. To avoid the unpleasant effects of ichthyol it should be given after meals. Increasing doses are not necessary for good results in children.—*Walter B. Jennings.*

**Therapeutic Value of Lecithin.**—Attention has been drawn of late to the therapeutic value of lecithin, many observers having noticed a marked improvement of the blood after the remedy had been taken for some time. F. Levy has interested himself in the theoretical side of the question, and has made quite a number of analyses to determine if the metabolism of the body is really stimulated. He found that with lecithogen, a cacao containing a certain proportion of lecithin, the amount of phosphorus excreted with the urine is increased, while the percentage of nitrogen remains about the same. In impoverished blood, the remedy often does more good than iron; it shows its beneficial influence particularly in secondary anemias. The amount of lecithin contained in the various nutritive preparations on the market is generally 1 per cent., but this seems to be sufficient to bring about the desired results.—*Berl. klin. Woch.*, 1905, No. 39.

**A New Principle of Ergot.**—E. Vahlen has succeeded in isolating from ergot an active principle which he reports stimulates the contractions of the uterus and is soluble in water, but does not cause convulsions or gangrene. This substance, termed clavin, is probably a chemical entity, since it forms characteristic crystals if an aqueous solution is allowed to evaporate. It is free from all poisonous properties and may also be injected subcutaneously without causing irritation. A solution should always be prepared shortly before use, since it will not keep long. Tablets are now on the market, both for subcutaneous and internal use. The former contain 0.02 gm. (1-3 gr.) of clavin and 0.08 gm. (1 1-3 gr.) of salt, and are to be dissolved in 1 c.c. (15 min.) of water.—*Deut. med. Woch.*, 1905, No. 32.

**Association of the Fusiform Bacillus and a Spirillum.**—H. Vincent, Val-de-Grace (*Annales de Dermatologie*, Paris) has been continuing his researches on the symbiosis of the fusiform bacillus and a spirillum which induces the affection known as Vincent's angina. Its occurrence has been reported in all countries, generally affecting persons between eighteen and thirty. His own experience has been that it forms 2.26 per cent. of all cases of sore throat. The fusiform bacillus is a normal inhabitant of the buccal cavity, it is ubiquitous, like the tetanus bacillus, and, like the latter, requires special conditions for its development. These conditions are depressed vitality from any cause,

starvation, cachexia, or chemical or microbial intoxication, with a lesion caused by some other microbe. When the organic defences are broken down, the fusiform bacillus installs itself and is liable to proliferate to an amazing extent, causing vast suppurations when air does not reach the parts. In 17 cases of subperiosteal dental suppuration he found this fuso-spirillar symbiosis in seven instances, and once in pure cultures. This symbiosis was also found in eleven out of nineteen cases of appendicitis, in periostitis of the tibia or fetid abscess of the leg, etc. He is convinced that noma and gangrene of lungs or pleura are the result of fuso-spirillar infection. The angina due to this symbiosis he regards as a kind of hospital gangrene of the mouth. The superficial lesions are identical under the microscope, but in the depths the fusiform bacillus vegetates alone, with a necrobiotic and hemorrhagic action. He adds the literature, which amounts already to 131 articles since his first publication in 1896. Inoculation of a healthy person with hospital gangrene or the fuso-spirillar combination induces merely an insignificant reaction and lesion.

**Thiosinamine in the Treatment of Urethral Strictures.—**

E. Remete (*Centralb. für die Harn und Sexualorgane*, 1905) employed thiosinamine in 20 cases of urethral stricture of various calibre. He injected 15 gr. of a 15 per cent. alcoholic solution between the skin and the muscles of the back twice weekly; the pain of the injection was combated with cocaine injections. In the majority of the cases the method produced a decidedly favorable result, and one which could easily be noted. He did not get, nor did he expect to have, an agent which, without other assistance, would dilate the stricture, but he did get a remedy which softened the stricture so much that gradual dilation was made much easier and cured the patient much quicker. The best results were obtained in strictures of medium calibre. He explains the action by considering that thiosinamine so improved the heart action as to give the vessels of the scar tissue a better blood supply and thus a tendency to soften.—*Amer. Med.*

**Types of Cirrhosis of the Liver.—**Besides the types usually observed, C. Alessandro (*Gazzetta degli Ospedali*, Milan) has encountered cases of cirrhosis of the liver with chronic icterus, slight hypertrophy of the liver and enormous hypertrophy of the spleen. He reports such a case and also one of still another type of cirrhosis of the liver. In the latter the liver is of normal size or slightly smaller than normal, and the spleen is also normal, but the kidneys are the seat of severe and constant lesions, the result of the severe and chronic icterus. Alcohol probably aids the de-

velopment of this type also. The case he describes was in a mechanic of 49, addicted to liquor. The influence of the alcohol in these cases is like that of the typhoid toxins in the cases of cirrhosis of the liver following typhoid fever. The long interval that may elapse before the first symptoms appear is not an argument against this etiology, as osteomyelitis and gallstones may likewise remain latent for a long time. In one such case the biliary symptoms developed almost at once, while the cirrhosis did not manifest itself until nine years later. Agglutination was positive, even at the tenth year.

**Prognosis in Posterior Basal Meningitis.**—O. Hildeheim (*British Medical Journal*, March 31st) claims that it is almost impossible to give any prognosis early in the disease. Although the prognosis is better the older the child, nevertheless one-third of his patients who recovered either completely or partially were under six months of age at the time of the onset of the disease. In not a few cases the prognosis depends largely on careful and unremitting attention to the artificial feeding of the child, and every effort should be made to avoid setting up a catarrh of the nasopharynx and respiratory system.

**Influence of Pancreatic Juice and of Bile on Intestinal Digestion.**—T. Brugsch (*Zeitschrift f. klinische Medizin*, Berlin) concludes his extensive monograph with the statement that processes affecting the functions of the pancreas and reducing the output of pancreatic juice diminish the absorption of fat in the intestines, but scarcely affect the splitting of the fat. He found, further, that uncomplicated exclusion of the bile was accompanied by a loss of about 45 per cent. of the fat in the stools. Consequently, if a larger proportion of fat is lost, it suggests participation of the pancreas in the trouble causing the icterus. When the pancreatic juice is shut off and the bile nearly so, from 80 to 90 per cent. of the fat is lost. The average loss of nitrogen in uncomplicated icterus is about 11 per cent., but when accompanied by a pancreatic affection, about 33 per cent. The carbohydrates are well utilized in cases of pancreas affections. Accelerated peristalsis in the small intestine is liable to entail a loss of fat up to 40 per cent., even when the secretion of bile and pancreatic juice is normal. Catarrh of the small intestine also hinders absorption of nitrogen and fat. When the proportion of dried stool is over 30 per cent., it should arouse suspicion of disturbance in the absorption of fat. The proportion of fat in the dried stools in case of icterus may amount to 80 per cent.; the average in case of a pancreatic affection is 60 per cent. In case of considerable loss of nitrogen the percentage of fat can drop still lower, and hence

the proportion of fat in the stools should not serve alone as a sign of a certain disturbance in the absorption of fat. He adds other conclusions from study of diabetics and of dogs after removal of the pancreas. He did not find any essential difference in regard to the absorption of fat and nitrogen in man and in dogs after exclusion of the pancreatic juice. The particulars of his research on 15 patients are given in detail.

**Antibacillary Serum in Experimental Tuberculosis.—**

S. Livierato (*Gazzetta degli Ospedali*, Milan) has been treating animals with an aqueous extract of living tubercle bacilli. Their serum acquired antibacillary properties with little antitoxic power, but it agglutinated when diluted 1 to 2,000. About 1.5 mg. of living, virulent tubercle bacilli, all from the same culture, with 1 c.c. of salt solution were put in small collodion sacs. The sacs were then placed between the loops of the intestine in guinea-pigs, one in each animal. The animals were then separated into three groups; the first group received no treatment, the second group was treated with serum from tuberculous patients, and the third group with the prepared antibacillary serum. The latter displayed marked curative power, preventing the development of the experimental tuberculosis in the animals and killing the bacilli in the test tube. The serum of tuberculous patients failed to show any curative action.

**Erythema Scarlatiniform and Scarlet Fever.—**J. Beard and T. W. N. Barlow (*The Lancet*, London, December 31st) direct attention to three important points in the differential diagnosis of these two affections: 1, The very early onset of desquamation; 2, the desquamation taking place while the erythema is in the florid stage, and 3, the erythematous base observed after desquamation and which remains for some time, with its peculiar glistening and greasy appearance.

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TORONTO, JUNE, 1906.

NO. 6.

## Editorials.

### THE REPORT OF THE REGISTRAR-GENERAL OF ONTARIO FOR THE YEAR ENDING DECEMBER 31st, 1903.

THE report of the Registrar-General of Ontario for the year ending December 31st, 1903, shows that there were registered in this Province 48,742 births (including still-births), 25,071 being male and 23,671 female infants, which is equal to a rate of 22.1 per 1,000 living persons. The estimated population of this Pro-

vince, June 30th, 1903, was 2,198,692. In adjoining States and Provinces the birth rate was as follows:

Quebec.....	34.05	per 1000
Rhode Island.....	25.09	"
Connecticut.....	22.5	"
Vermont.....	21.9	"
New Hampshire.....	20.04	"

In the opinion of the Registrar-General, the birth rate in this Province is unsatisfactory; natural conditions are being interfered with, or supplanted by those of a preventive character and criminal in tendency. The illegitimate birth rate in Ontario for the year was 782, or in the proportion of 16 per 1,000 births—a figure much below that recorded in England and Wales for 1902, viz., 39 per 1,000, or that recorded in Scotland for 1902, viz., 62.8 per 1,000.

The marriages registered in Ontario for 1903 numbered 19,830, corresponding to a rate of 9.0 per 1,000 of the total estimated population. Some of the marriage statistics of other countries are as follows:

Rhode Island (1902).....	9.23	per 1000
New Jersey (1902).....	9.22	"
Vermont (1902).....	9.15	"
New Hampshire (1902).....	9.69	"
Connecticut (1902).....	8.14	"
England and Wales (1902).....	7.9	"
Quebec (1902).....	6.4	"
Ireland (1902).....	5.2	"

The marriages registered in Ontario are, therefore, similar in number to those of the adjoining States, but in excess of those of the Province of Quebec, as well as of those of England and Wales, and notably of those of Ireland.

The deaths registered in Ontario for the year 1903 numbered 29,664 (including still-births), being in the proportion of 13.4 of the total population. It would appear that the health of this Province is good, when this death rate is compared with those of other countries, as taken from the returns of 1902:

Quebec (1902).....	18.2	per 1000
Scotland.....	17.2	"
New York.....	17.0	"
England and Wales.....	16.2	"
Vermont.....	16.0	"
Rhode Island.....	15.9	"
New Jersey.....	15.9	"
New Hampshire.....	15.87	"
Connecticut.....	15.2	"

There were a good many deaths from typhoid fever in the cities of the Province, Kingston showing an increase of 17 deaths more than in 1902. In towns, such as Sarnia and Sault Ste. Marie there were also a good many deaths from this disease—facts which prove a polluted condition of the potable waters used in these cities and towns. That the mortality from typhoid fever in Ontario was greater in rural districts than in populous centres was shown in 1902, when Algoma, Muskoka, Nipissing, Parry Sound, Rainy River and Thunder Bay—districts to which tourists flock in the summer months—had a typhoid death rate of 0.49 per 1,000 of population, while Toronto in 1902 had a typhoid death rate of 0.14 per 1,000.

The mortality from smallpox increased in 1903, there having been 21 deaths from that disease, as compared with 7 in 1902.

Whooping cough proved fatal in 204 cases. The reduction in deaths from measles was, however, 61.5 per cent.

Scarlatina showed an increase in mortality of 64.2 per cent. over the figures of the preceding year, the increase occurring in the rural districts.

Of the 687 deaths due to diphtheria and "croup," 248 deaths, 34.6 per cent. happened in the cities, being 15 in excess of the mortality from this disease in 1902.

Deaths from influenza increased by 70 per cent. over the rate during 1902, the majority of deaths from this cause occurring in the rural districts.

The maximum of deaths from tuberculosis was reached in Ontario in 1900, when 3,484 deaths from this disease were recorded. Since that year there has been a reduction in the mortality from this disease in Ontario, viz., 3,284 in 1901; 2,694 in 1902; 2,723 in 1903.

Cancer, which includes carcinoma, sarcoma and "malignant growths," caused 1,156 deaths, and of these 534 were males and 622 females. The largest number of deaths from this disease occurred in the age group, 60-69.

The deaths from diseases of the nervous system numbered 3,279, being 11 per cent. of the total deaths for the year.

During 1903, 2,590 persons died of diseases of the circulatory apparatus. The greater number (1,993) are said to have died of "organic heart disease," an increase of 308 deaths, or 18 per

cent. over the figures of the preceding year being ascribed to this disease.

Under digestive diseases the total deaths registered were 2,725, or 9 per cent. of the total deaths from all causes; 1,091 deaths, or 40 per cent., were due to cholera infantum. The Registrar-General states that the mortality from this disease could be materially diminished if mothers and nurses engaged in raising infants were better educated in the methods to be adopted, and the dangers to be avoided, in the alimentation of infants.

It is stated in the report that 249 deaths were the sub-group, which includes and is largely made up of deaths from appendicitis.

The total deaths from diseases of the genito-urinary organs were 1,053, of which 630, or nearly 60 per cent., were due to either acute or chronic nephritis (Bright's disease), and 366 to other diseases of the kidney or bladder.

Of the 231 deaths in the group of "puerperal diseases," 42 were due to puerperal septicemic affections, or 8.6 per 10,000 births, which is a low figure in comparison with the mortality in England and Wales for the same year, viz., 4.07 per 1,000 births. The chief points of interest in the remaining groups of diseases are the 1,265 still-births; the 2,585 deaths from congenital debility and malformations, and the 3,343 deaths from "senile decay."

There were 125 deaths from suicide; 1,241 deaths from accident, a little over 4 per cent. of the deaths from all causes.

During the year 807 deaths were registered, which were useless for statistical purposes. The Registrar-General expresses the hope that in future physicians in Ontario will endeavor to be more careful in filling in death returns.

J. J. C.

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### TRACHOMA.

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TRACHOMA (*τραχυς*, rough), granular eyelids, granular conjunctivitis, is a contagious, palpebral conjunctivitis, characterized by the formation of granulations on the conjunctiva of the eyelids with subsequent cicatricial contraction and deformity. The disease is communicated by one individual who has trachoma to

another individual. The contagion arises from the use of the same handkerchief, towel or washbasin, the contagium being conveyed by the fingers, towel or handkerchief to the eyes, and not through the medium of the surrounding air. This disease speedily becomes epidemic in crowded orphanages, almshouses and other institutions if precautions are not taken to segregate patients with trachoma from the other inmates. It is thought that the lymphatic or scrofulous temperament predisposes to it; but persons, who previously enjoyed good health, may, if exposed to the contagion, be attacked by the disease. Although it is caused by a microbe, its special micro-organism has not yet been isolated.

The prognosis is very grave. It is contagious, is characterized by serious consequences to vision, and is very chronic in its duration. Relapses occur frequently and persistently, and a relapse may occasion all the intense inflammatory symptoms of acute granular conjunctivitis. The continuance of trachoma is to be reckoned by many years, and while some cases of this disease arrive at a condition of comfort in less time, it is not rare for ten, or even twenty years, to elapse before the final stage is attained.

According to the kind of granulation present, three varieties of trachoma were formerly distinguished: *T. sabulosum*, with gritty granulations like sand; *T. carunculorum*, fleshy excrescences, and *T. herpeticum*, hard pustules on the inner surface of the eyelids. The essential feature in its pathology is the lymphoid cell. These lymph cells are scattered through the conjunctiva, forming adenoid tissue. These cells (sago grain granulations) must be sought for on the mucous surfaces of the eyelids. At first they occur principally on the lower retro-tarsal fold of the conjunctiva, spreading gradually to the same position above and finally affecting the entire lid surface. The ocular conjunctiva often participates in the vascularity, and small granulations may even occur on it. Vascularity and cloudiness of the upper part of the cornea (pannus) follow the vessels here lying immediately beneath the epithelium; this condition sometimes extends over the entire cornea, and especially when there are inverted lashes. There is no tendency to spontaneous cure, and a long continuance of the chronic changes generally leads to entropion, trichiasis and often corneal mischief. The Jews, the Irish, the inhabitants of

the East and the North American Indians seem specially liable to it; negroes are said to be practically exempt from it.

The influence of residence at a considerable altitude above sea level on the existence of this disease is worthy of note. In the city of Mexico, which has an altitude of 6,000 feet above sea level, trachoma is very rare. Good hygiene is not responsible for this exemption, because the hygienic status of the lowest classes in Mexico is of the worst. Neither does the influence of race account for it, for many different races are included among the lowest classes of the city of Mexico. The great elevation of the city of Mexico above sea level is thought to be the efficient cause of this exemption from trachoma (Chacon, *Gaceta Medica de Mexico*, June 1, 1902). Extreme dryness of the atmosphere at this altitude, causing desiccation of germ life, and a long exposure of the soil to intense sunlight, might singly or conjointly cause the destruction of the microbes of trachoma, which must find entrance into the city of Mexico as well as elsewhere.

This, however, is mere speculation. Orphanages there are in the city of Mexico, just as there are orphanages in New York or Toronto. Statistics showing the incidence of trachoma among the inmates of the orphanages in the Mexican city could be compared with statistics relating to an American or Canadian city. This seems a logical proceeding before one starts to formulate theories referring to the repression of trachoma in orphanages, or to indicate the best means of dealing with immigrants (children or adults), who are suffering from this disease.

Without being self-contradictory, the rarity of trachoma in the city of Mexico induces one to think that a suitable environment for the trachomatous immigrants of the United States or Canada could be found on the high plateaus of the Rocky Mountains. It would certainly be more reasonable to send trachomatous immigrants for treatment to some elevated location, 6,000 feet above sea level, than to immerse them in detention hospitals by the damp seaside at New York or Halifax.

J. J. C.

**OF THE MAKING OF CORONERS THERE IS NO END.**

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How times change! A few years ago a dozen, at most, men well qualified were considered more than enough to execute the duties connected with the high office of coroner in this city of Toronto. Now a coroner-in-chief does most of the work, and does it worthily, at a small remuneration. However, without pestilence, war, scourge or quake of any kind to increase the death rate, an associate coroner is appointed almost every Monday morning. In the name of common sense, what use is their appointment to them? The ratio of deaths requiring an inquiry is not sufficient to supply them with a subject once in many moons.

The golden egg so freely given out by the Government lately is only china; there is nothing in it and it never hatches out. The whole outfit at present is a farce, no properly equipped morgue to hold an inquest in, a horde of idle coroners waiting for a chance to preside over twelve good men and true, and some of them, we almost dare to affirm, have never since graduation given a week's consecutive study to medical jurisprudence, and as for common law, they would look surprised, almost grieved, if one suggested such a study to them. These fledglings of coroners are all good physicians, capital men and friends, and in every way a credit to their profession; but do not let us forget that Rome by any name, was not built in a day. The sooner this vaudeville performance stops the better, or the public press may ask a question or two that will make some one sit up, or sing a top note. A reasonable arrangement would be to appoint, say, four assistant or deputy coroners, picked men, appointed only after stiff examination, who, with the coroner-in-chief, would do all of the work for Toronto. Cheerily goes on the new Automobile Bill before the House. Are the promoters, perchance, seeing a way to provide material for the coroners in framing the regulation that searchlights are to be abandoned? It's a pity of the old, the new and the coroners-to-be at the present moment. They are in a foolish position, and the office is robbed to some extent of its dignity.

Further discussion of this subject is useless, as it is best dealt with in the good old Yankee way by asking a question—Why?

### THE DIRE NECESSITY OF THE PHYSICIANS OF SAN FRANCISCO.

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OF the awfulness of the disaster to the citizens of San Francisco only a vague idea, we believe, have we received even from the apparently full accounts recorded in the daily press and in the letters from friends. We have been assured that among the greatest sufferers are the physicians. In many cases they have lost everything, and a medical man without a book, an instrument or the means to in any way better his condition, commends himself to not only our sympathy, but our practical energy. We can all help a little; let us do it, and let our aid be given to the Canadian physicians resident in San Francisco. Kindly send anything, everything, with a name or anonymously, to the "San Francisco Physicians' Fund," CANADIAN JOURNAL OF MEDICINE AND SURGERY, 145 College Street, Toronto, and the same will promptly be forwarded to the Mayor of San Francisco for the purpose indicated.

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#### EDITORIAL NOTES.

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**X-Rays and Anti-diphtheritic Serum in the Treatment of Pernicious Anemia.**—In a paper read at a meeting of the Medical Society of the Hospitals (*La Presse Médicale*, March 14th, 1906), Drs. Louis Renon and Leon Tixier report the successful treatment of a case of pernicious anemia with X-rays and anti-diphtheritic serum. The patient, a woman, had already received arsenical treatment, but without favorable results. On the other hand, restoration of her blood to a normal condition resulted either from the X-rays or the anti-diphtheritic serum, or from both of these agencies together. The authors do not lay stress on the clinical features of the case, because temporary improvement is often noted during the treatment of a case of pernicious anemia; more reliance is placed on examinations of the blood. These examinations showed that restoration of the patient's blood took place under the influences of the physical and chemical agencies employed. Examinations of the patient's blood made during the

hours which succeeded the use of the X-rays and the injections of anti-diphtheritic serum, showed stimulation of the hematopoietic organs, which was disclosed by a notable increase in the number of red blood cells, by an eosinophilia as remarkable for its continuity as its intensity, and finally by the presence in the blood of polychromatophil blood cells, the young elements of the bone marrow. The authors remark that these similar results, obtained by procedures so different in appearance, show the parallelism existing in the mode of action of these different therapeutic agencies. The presence in the blood of leucotoxins (products of the destruction of white blood cells by X-rays, or of hemolysins (after injections of anti-diphtheritic serum) is, doubtless, an indispensable and necessary factor in determining a reaction of the hematopoietic organs on these conditions. Drs. Josue and Roger have shown that anti-diphtheritic serum causes a special action in bone marrow, which relates almost entirely to the nucleated red blood cells. If diphtheritic toxin is injected into a rabbit, the reaction obtained in the creature's blood relates chiefly to the white blood cells. When diphtheritic toxin and anti-diphtheritic serum are injected simultaneously, the twin reactions become associated; a great number of red blood cells and also of myelocytes (marrow cells) may be noted.

**A Practical Preventive of Typhoid Fever.**—Typhoid fever excreta, discharged just outside the roadbed of railways, may be washed by rain or melting ice and snow into streams, or may be discharged directly into streams running transversely to the roadbed. People using potable water drawn from such streams are exposed to the danger of catching typhoid fever. The germs of typhoid fever are also discharged into fresh water lakes, rivers and canals—the Muskoka lakes, for instance—from yachts and other boats plying on these waters. To prevent the discharge of excreta on the roadbeds of railways a corrective measure is suggested by Dr. Frederick Griffiths, in a letter published in *American Medicine*, March 31st, 1906. This writer recommends that every railway hopper be closed at the bottom and that excreta be not discharged on or near a railway track. To accomplish this desideratum a metallic receptacle of a suitable size should be suspended beneath the body of the car. At division points these

receptacles may be changed or cleaned, and their contents committed to the sewers. Another plan suggested is: that the receptacle for excreta be made stationary and fitted with a pipe and valve below and a flushing pipe above. At the end of a trip connection may be made with the sewers at a depot, similar to the method employed in air-brake pressure reservoirs, and the receptacle thoroughly flushed out. It occurs to us that at our inland ports a similar plan of disposing of the excreta collected on lake and river steamers and sailing boats might be adopted. If sewers are not available, septic tanks could be installed at one or more ports to receive the excreta collected from the boats, the effluent being still further cleared by allowing it to filter through sand. However, if raw sewage is discharged from the sewers of a town into a lake or river, which is used as a source of potable water, steamboat owners may naturally object to the substitution of a metallic receptacle for the open hopper closets at present used in their boats. When the sewage of a town is treated in septic tanks and subsequently filtered before the effluent is discharged into a lake or river, the authorities of that town will be in a position to demand reforms in the methods of disposing of excreta from railway corporations and steamboat companies doing business in or near the town or along its water front.

**A New Sign of Hereditary Syphilis in the New-born Infant.**—V. Joukowski (*Meditsinskoé Obosrénie*, 1905, No. 7, pp. 473 to 780) mentions a new sign indicative of hereditary syphilis in the new-born infant; from its birth the upper layer of the skin is dry and mobile. In some infants this sign is only remarked on certain parts of the body—the chest, abdomen, more rarely on the limbs, and in some cases only on the soles of the feet, or the palms of the hands. When well marked, it seems that the lightly raised stratum corneum of the skin covers the infant's body like a shirt made of some fine tissue. At each movement made by the infant the skin seems to make an independent movement of its own revealing itself in slight brilliant undulations. After a few days desquamation appears, beginning with deep cracks of the skin, followed by hemorrhagic spots. In cases in which this sign was well marked, the infants were affected with aphonia and did not live over six days. An anatomico-pathological examination of

their viscera always confirmed the diagnosis of syphilis, although, during life, the above-mentioned sign was the only visible indication of the disease. Some of these infants died suddenly. Ordinarily the cracks in the skin appeared, first, at the articulat foldings of the limbs, and, later, on other parts of the body. The author had in all eighteen cases, of whom twelve died during the first week, two on the tenth day, and four were taken from the hospital. Histological examination showed that the whole skin was atrophied, but that the stratum corneum was thickened and adhered imperfectly to the underlying layer of the skin. There were numerous vacuoles in the cells of the mucous bodies. There was hyaloid degeneration of some of the connective tissue bundles of the derma; the elastic fibres were rare.

**Wounds Caused by Friction and Traumatic Ulcers.—**

Dr. Secretan (*Revue Médicale de la Suisse Romande*, 1906, Vol. xxvi., No. 2, p. 61) draws attention to the peculiar evolution of certain wounds caused by friction. These wounds are produced by the rubbing of the integument against some massive body (a large stone, a grindstone), or a fall into a well; they generally appear in the form of a slight contusion, or even as a more or less limited superficial excoriation. The first appearance of such an injury seems to warrant a favorable prognosis; but frequently such an opinion proves erroneous and the wound heals very slowly. In one case of contusion, caused by friction from the fall of a large stone, the resulting excoriation of the derma took three months and eight days to cicatrise. In four other cases of contusions and excoriations, caused by friction, complete cicatrization took from two to three months. In these cases, diathetic conditions, such as syphilis, alcoholism, albuminuria, scrofula, poor circulation, defective alimentation, did not exist. Neither was malingering practised in order to prolong the period during which the injured workmen, who were insured, would be exempt from work, or to enable them to draw a larger indemnity. The cases were watched by the surgical attendant; the dressings were often marked privately, and yet no evidence of bad faith on the part of the injured men was discovered. Dr. Secretan thinks that the slow healing of the wounds in these cases was due to the nature of the injuries. He thinks that friction diminishes apti-

tude for healing in injured tissues much more than a direct blow. Violent friction causes a sort of torpor of the tissues, which subsequently do not heal in a kindly way and are prone to slough. This injury is a sort of trophic lesion, having a tendency to ulceration and sloughing—characteristics which are also noted in traumatism caused by the action of radiant heat, electricity and radium.

**International Medical Association for the Suppression of War.**

—We have much pleasure in publishing a circular recently issued by the International Medical Association for the Suppression of War. Dr. J. A. Rivière, president of this association, is also chief editor of the *Journal and Annals of Physico-therapy*, Paris. The resolutions are worthy of the endorsement of all philanthropists. “At a general meeting of the International Medical Association for the Suppression of War, held March 21st, 1906, at the offices of the association, 25 rue des Mathurins, Paris, Dr. J. A. Rivière in the chair, a large number of physicians of all nationalities adopted the following resolutions: (1) In future all international conflicts should be settled by two tribunals (The International Tribunal and The Humanitarian Tribunal), normally and properly constituted, in which a majority of votes will suffice to sanction a conclusion. (2) In the twentieth century a generous spirit of human solidarity should be substituted for hatreds of race, religion and class. (3) Force should not interfere, in any way, to modify the natural groups formed in society. (4) The directness of purpose, which characterizes the solidity of the acts of the individual, applies equally to the family, to society and to nationalities. Anarchy is to a nation what disease is to an individual. Social reforms, coming from any direction, do not spring from antagonisms or force, but solely from the good will of all, aided by logic and reason. This assembly recognizes with pleasure the series of significant events which have occurred during the last year. Efforts have been multiplied to bring about the suppression of war. The solidity of this principle has been affirmed by cordial and friendly discussions, and spontaneous outbursts of enthusiasm, inspired by the most disinterested and truly humane sentiments, have occurred during the past few days among those, who, at the present time, are the highest ex

ponents of world-wide authority." We presume that the allusions in the last paragraph refer, among others, to the consultations of the Powers at Algeciras. and, also, to the cordial relations existing between the Governments of England and France. Canadians are peculiarly and deeply interested in the establishment and perpetuation of such friendly relations.

**Lead Poisoning Caused by the Therapeutic Use of Lead Acetate.**—The susceptibility of some persons to lead poisoning almost amounts to an idiosyncrasy. Physicians should order that prescriptions containing lead shall not be refilled without further orders. In the issue of *American Medicine* for October 14th, 1905, Dr. Arneill, of Denver, reported the case of a coal miner, who had been treated by another physician with a preparation containing lead acetate. It was thought that this patient had taken from 2 dr. to 2½ dr. of lead acetate in the course of five or six weeks, the prescription having been refilled a number of times without the knowledge of the prescribing physician. Dr. Arneill found that this patient had colica pictonum; a typical blue line was present on the gums; no red cells were found containing basic granulations; the gastric juice contained no free hydrochloric acid, was of low total acidity, and contained lactic acid, but no Oppler-Boas bacilli. The colic was relieved after ten days' treatment. A case of colica pictonum resulting from the therapeutic employment of lead acetate is reported by Dr. W. Pepper, of Philadelphia, in a letter published in *American Medicine*, March 31st, 1906. The patient, a teamster by occupation, had used during the early summer of 1905 a preparation of lead acetate, each dose containing 1 gr., and he had taken more than three doses a day as he had severe diarrhea. In all, several drams of lead acetate had been taken, the prescription having been refilled several times. The total amount of lead acetate taken, in Dr. Pepper's opinion, was probably from 2 dr. to 2½ dr. in five or six weeks. The patient was admitted to the medical wards of the Philadelphia Hospital, Aug. 28th, 1905, on account of chronic diarrhea; he complained of pain in his abdomen and of tenesmus. The physical examination showed the heart and lungs to be normal, the abdomen to be tense and rigid but with no points of special tenderness. There was a marked blue line on the gums. The urine contained a few

light, granular casts, numerous hyaline casts and a small amount of albumen. The temperature, pulse and respiration were normal; the pain in the abdomen was very severe for a few days, and required local applications, as well as a general sedative. The diarrhea of which he had complained before entering the hospital was not present during the month he was in the ward, the record showing that he had but one stool a day in spite of the fact that magnesium sulphate was given him for the purpose of eliminating the lead. On September 15th the pain in the abdomen had disappeared and the patient was in fairly good condition. He showed no signs of paralysis. Examinations of his blood showed basic granulation of the red cells in large numbers. No gastric analysis was made. Histories of this kind reveal the reasons why preparations of lead, which were very freely employed, a generation ago, in diarrhea, dysentery, hemoptysis, hematemesis and uterine hemorrhage, are now supplanted by less dangerous astringents.

**The Amended Pharmacy Act (Ontario).**—A notable amendment to section 26 of the Pharmacy Act (Ontario) has been made by the Ontario Legislature. This Act now provides that a majority of the directors of a joint stock company, doing business as pharmacists, shall be registered pharmacists, and that one of such directors shall personally supervise the drug business in the company's establishment. The principal object achieved may be the closing of the drug business feature of the departmental stores, unless three druggists are employed to complete a board of five directors for every departmental store in which a drug business is carried on. Another important reform in the Act will be the virtual extinction of the enterprising, but unqualified, man, who used to masquerade as a pharmacist. He would start a drug store at an important city corner, where he would conduct the business of a druggist and chemist. He would incorporate a joint stock company, himself holding almost the entire stock, the balance of the stock being given to four relatives, thus making the required number to form a limited company. Thus equipped he would carry on the business of a pharmacist in defiance of the Pharmacy Act. According to the terms of the amended Act he will have to introduce a majority of pharmacists into his combination if he wishes to establish a limited company for

the sale of or keeping open shop for retailing, dispensing, compounding drugs, etc.

J. J. C.

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**PERSONALS.**

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GRAHAM—BOYD—On Wednesday, May 2nd, at Bloor Street Baptist Church, by Rev. Mr. Freeman, Jane Eleanor, youngest daughter of Sir John Boyd, Chancellor of Ontario, to Dr. Joseph Graham, son of the late Dr. J. E. Graham.

DR. JOHN P. RUSSELL, late of Simcoe Street, Toronto, has been appointed surgeon in charge of the James Bay Railway extension from Parry Sound northwards. He is establishing four hospitals for the use of the 2,000 employees who will be under his care.

DR. HAMILL, of the Canadian Medical Exchange, informs us that there is no time in the year better than the present for physicians, who desire to sell their practices, to list the same with him, as a number of final students will graduate, and will be looking for places to locate. Physicians in need of a medical broker to sell their practices quietly and quickly should take advantage of Dr. Hamill's experience and opportunities.

ANOTHER SKYSCRAPER FOR TORONTO.—The Trustee Board of the Toronto General Hospital, following the example of the Traders' Bank downtown, have just erected for medical superintendent, Dr. J. N. E. Brown, within the grounds of the hospital, on Gerrard Street East, a second skyscraper. It consists of a one-story cottage with five or six rooms, covering in all an area of about 20x25 feet. How the genial doctor and his family (it is to be hoped he has none) can very well put in the warm summer months within the precincts of this spacious (?) residence, is just a little questionable.

## *News of the Month.*

### BRITISH MEDICAL ASSOCIATION.

#### A CLINICAL MUSEUM AT THE AUGUST MEETING.

DR. WM. CSLER has suggested that a clinical museum, at which rare and interesting cases can be exhibited, should form one of the features at the meeting of the British Medical Association. The secretaries will be glad to hear of any cases that members would care to exhibit, and would be glad if members would communicate with them about such cases.

#### SECTION OF MEDICINE.

President—Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents—Professor Alex. McPhedran, M.B., Toronto; Professor James Stewart, M.D., C.M., Montreal; Alex. Napier, M.D., Glasgow; Wm. Calwell, M.D., Belfast.

#### PROVISIONAL PROGRAMME.

The following subjects have been selected for discussion:

Tuesday, August 21st.—A discussion on "Blood Pressure in Relation to Disease." The subjects will be treated under the following headings: (a) "The Physiological Introduction," by Dr. Dayson (Baltimore); (b) "Clinical Methods of Investigating Blood Pressure," by Dr. G. A. Gibson (Edinburgh); (c) "Pathology and Therapeutics of Morbid Blood Pressure," by Sir Wm. Broadbent. The following will also take part: Dr. MacKenzie (Burnley), Sir James Barr, Dr. Janeway (New York) and others.

Wednesday, August 22nd.—A joint discussion with the Physiology Section on "Over-Nutrition and Under-Nutrition, with Special Reference to Proteid Metabolism," to be opened by Prof. Crittenden, of Yale.

Thursday, August 23rd.—Papers on "Heart Block," by Dr.

MacKenzie (Burnley), Dr. G. A. Gibson, Dr. Erlanger, Prof. Osler and others.

Friday, August 24th—Papers.

ROBERT DAWSON RUDOLF, M.D., M.R.C.P., 396 Bloor St. W., Toronto.	} Hon. Secs.
JOHN TAYLOR FOTHERINGHAM, B.A., M.D., 20 Wellesley St., Toronto.	
ROBERT HUTCHISON, M.D., 22 Queen Anne St., London, W.	

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### ITEMS OF INTEREST.

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#### **Toronto Branch of H. K. Wampole & Co., Perth, Ont.—**

It is not generally known that H. K. Wampole & Co., who recently moved to Perth, Ont., where they built a splendid new laboratory, retained a fully equipped warehouse at No. 80 Bay Street, Toronto. It is on the second floor, and reached in a moment by the elevator. The firm keeps a full stock of their goods there, and any physician can receive the same promptly on telephoning to Main 3280.

**Presentation to Dean Geikie.**—In recognition of the fifty years' connection of Dean Geikie with medical education in Toronto, this year's graduating class of Trinity Medical College, who had not even had lectures from him, recently presented him with a beautiful ebony cane, gold mounted. The address expressed their warm appreciation for his intense loyalty to Trinity. The dean, in replying, thanked the students heartily for their kindness, and added that he still believed that amalgamation was a mistake. The presentation took place at Trinity Convocation Hall.

**Toronto Pathological Society.**—At the meeting of the Toronto Pathological Society, held on Saturday, April 28th, it was decided to change the night of meeting for the next year to the last Wednesday in the month. The following officers were elected for the coming term: President, Dr. J. A. Amyot; Vice-President, Dr. W. H. Pepler; Treasurer, Dr. C. J. Wagner; Corresponding Secretary, Dr. E. S. Ryerson; Recording Secretary, Dr. H. S. Hutchison.

#### **Proposed Competitive Examination for House Surgeonship.—**

A competitive examination for the purpose of choosing house surgeons of the General Hospital, instead of leaving the selection in the hands of the Medical Faculty of Toronto University, is a

change of the near future. The term of the appointment, it is suggested, instead of being one year, will be at least one and a half, and the men will come on duty in groups of four every four months instead of every six, as at present. These proposals, as recently made by Dr. Brown, Superintendent of the General Hospital, have, we understand, been endorsed already by the Board of Governors, and a conference with the University authorities will soon be held. Other recommendations made by Dr. Brown are that some radical separation be made between the private and semi-private wards, and the public ones, even so far as to having them in different buildings; also that a building for patients suffering from pulmonary consumption be erected as an experiment. Some of these ideas Dr. Brown received from his recent visit to New York hospitals.

**Convocation for Medical and Other Professions.**—Dr. John Gibson, B.A., of 24 Chancery Lane, London, and Upper Norwood, has for many years past been well known as a most successful tutor. He makes a specialty of the medical profession, and has passed a large number of students in that capacity through the London Matriculation, Preliminary Scientific, Conjoint Army and Navy, Medical, etc., examinations. One of his pupils, Mr. Welch, took honors in no fewer than four subjects last June. Mr. Gibson also prepares candidates with great success for the bar, legal and accountancy examinations; also for Oxford, Cambridge and London universities, whilst some of the “plums” in the higher civil service—more especially in the student interpreter-ships for China, and the Levant, and the India police—have been secured by his pupils. Arrangements are made for both oral and correspondence tuition; the former may be by way of residence or non-residence. Residence pupils are received in Upper Norwood, a most healthy suburb of London, adjoining the Crystal Palace, and non-residence pupils at 24 Chancery Lane. Mr. Gibson brings out a monthly educational journal, called *The State Correspondent*, which gives up-to-date information on educational matters in general, and on civil service competitions in particular.

# The Physician's Library.

## BOOK REVIEWS.

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*Aids to Surgical Diagnosis.* By H. W. CARSON, F.R.C.S., Surgeon Tottenham Hospital. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1906. Canadian agents: J. A. Carveth & Co., Toronto, Canada.

This "Aid to Surgical Diagnosis," a well-printed little manual, would be useful to a student preparing for an examination in surgery, the main points in the diagnosis and differential diagnosis of the more common surgical diseases being given. As a work of ready reference, it would be a useful pocket companion to a young surgeon.

J. J. C.

*Text-book of Psychiatry for Physicians and Students.* By LEONARDO BIANCHI, M.D., Professor of Clinical Psychiatry and Neuro-pathology in the Royal University of Naples, etc. Translated from the Italian by James H. MacDonald, M.B., Ch.B., Glasgow. London: Bailliere, Tindall & Cox, Covent Garden.

This admirable work will be read with pleasure by all interested in psychiatry. Coming as it does from a country in which some of the most marked discoveries in the finer structure of the nervous system have emanated, one naturally expects an adequate representation of the latest researches in the physiology and histology of the nerve centres, and this work of Professor Bianchi's fully justifies our expectations. The author fully realizes that the only solid foundation on which to build a complete text-book of psychiatry is the morphology and histology of the brain, and the recent advances in Italy in these branches has given him an opportunity which he readily seized, and to which he has devoted a large share of the early part of his work. But the work itself is chiefly clinical, and it is precisely the combination of the physiological with the clinical which makes the work so valuable. To those practitioners of several years' standing who may not have had the opportunity of study in psychiatric wards this work will be found most useful, since in the second part of it the author discusses the elementary symptoms of the disordered mind, thus enabling the family physician to detect mental disease

long before insanity has become manifest, and so warning him to take steps which will frequently save a mind from destruction. The chapters devoted to the Physio-Pathology, of Attention, of Memory, and of Ideation, are particularly interesting, and exhibit the advanced character of the entire work. The third part comprises the physiological conception of the individual psychopathies, and is naturally more voluminous than the other two. Every effort is made to simplify matters for the reader, and to make the book as practical as possible. Not only will this work be read with profit by the psychiatrist, but the general practitioner will find in its pages a most useful counsellor. The large number of illustrations are excellently done, and the entire book reflects every credit on its well-known publishers.

D. C. M.

*A Compend of Obstetrics*, especially adapted to the use of Medical Students and Physicians. By HENRY G. LANDIS, A.M., M.D., late Professor of Obstetrics, and Diseases of Women in Starling Medical College. Revised and edited by William H. Wells, M.D., Demonstrator of Clinical Obstetrics in the Jefferson Medical College, Philadelphia; Gynecologist to the Mount Sinai Hospital, Philadelphia; late Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; Fellow of the College of Physicians, and of the Gynecological Section of the same; Member of the Pediatric Society of Philadelphia, etc., etc. Eighth edition, illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1906. Cloth, \$1.00.

This is a neat little compend of 227 pages, including an index. The fact that this work is in its eighth edition is ample guarantee of its popularity. It contains fifty-two illustrations, is arranged in the form of question and answer, and covers the subject of obstetrics in such a way that one may find almost any question on the subject answered concisely. It is a convenient book for review or pocket reference.

W. J. W.

*Progressive Medicine*, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LAUDIS, M.D. March 1st, 1906. Philadelphia and New York: Lea Brothers & Company. Six dollars per annum.

The contents of this number include reviews of recent literature of the surgery of the head, neck and thorax; infectious diseases, the diseases of children, rhinology, laryngology and otology.

Every article is interesting and is full of useful information. The reviews dealing with cerebellar abscess and tumors of the

brain are very full. Under epilepsy the statement occurs that in the surgical treatment of epilepsy the tendency to-day, both with neurologists and surgeons, is rather a conservative one.

Among other interesting subjects are the physiology and the surgery of the thyroid gland, and the surgical and X-ray treatment of carcinoma of the breast.

Under infectious diseases the transmission of disease by insects is discussed. The insects which transmit disease are the mosquito, the common house-fly, the fleas, the ticks, the bed-bugs, the tsetse fly and lice. Regarding diphtheria the statement is made that there is now left no one whose opinion is based on much experience, who is in doubt about the therapeutic value of the diphtheria antitoxin.

During the past year in the literature dealing with the micrococcus rheumaticus, the claims that his organism is the specific cause of articular rheumatism have been strengthened. Under diseases of children we have reviews of infant foods, breast-feeding and other methods of infant feeding.

Other articles on diseases of the nose, throat and ear conclude an exceedingly interesting and useful number.

A. E.

*Clinical Applied Anatomy; or, The Anatomy of Medicine and Surgery.* By CHARLES R. BOY, M.D., B.S., B.Sc. (Lond.), M.R.C.P. (Lond.), F.R.C.S. (Eng.), and Lecturer in Applied Anatomy and Demonstrator of Morbid Anatomy, St. Thomas' Hospital; W. McAdam ECCLES, M.S. (Lond.), F.R.C.S. (Eng.), Joint Lecturer in Anatomy and Demonstrator of Operative Surgery, St. Bartholomew's Hospital. London: J. & N. Churchill, publishers. Net, 12s. 6d. Illustrated by 45 plates, of which 12 are colored and 6 figure in the text.

Here is a new work and it is good. The title, however, may alarm the general practitioner or the student leaving college, and cause him to feel that the contents may be anatomically dry facts. He need have no such fear, for the aim of the work appears to be to indicate the important influence of anatomy on the incidence and progress of disease, disorder and injury of the human body. The whole book, in fact, is written from the practitioner's rather than the anatomist's point of view.

The student and the practitioner will find here the sequence of events well explained, and many a point that has embarrassed the doctor to explain for himself is fully elaborated.

There are chapters on Tuberculosis and Syphilis, Tumors, &c., as well as upon the specific fevers and other purely medical subjects; hence one may judge of the complete nature of the work, and all is written in a lucid, entertaining style.

S.

*Reference Hand-book of the Diseases of Children*, for Students and Physicians. By PROF. DR. FERDINAND FRUHWALD, Chief of Clinic in the Vienna Polyclinic. Edited, with additions, by Thompson S. Wescott, M.D., Associate in Diseases of Children in the University of Pennsylvania. With 176 illustrations. Philadelphia and London: W. B. Saunders Company. 1906.

The above is somewhat of a departure from the ordinary form of the medical text-book. The classification is alphabetical with many cross references, which makes it very ready as a reference for the busy practitioner. The symptomatology is made a prominent feature of it, and prophylactic and dietetic treatment fully discussed. The therapeutic treatment gives large place to the newer synthetic preparations, whether wisely so is doubtful. The work is practical, full, without being verbose, and valuable as a reference hand-book.

A. R. G.

*The Anesthetic Technique for Operations in the Nose and Throat.*

By A. DE PRENDERVILLE, Senior Anesthetist to the London Throat Hospital. London: Henry J. Glaiser. 1906. 3s. 6d. net.

A most practical and valuable booklet on this subject, treating fully of anesthesia by nitrous oxide, nitrous oxide followed by ether or chloroform, chloroform ether mixture, ethyl chloride, ethyl chloride followed by ether, anesthesia in the dorsal, or in the upright position.

J. M.

*Nursing in the Acute Infectious Fevers.* By GEORGE P. PAUL, M.D., Assistant Visiting Physician and Adjunct Radiographer to the Samaritan Hospital, Troy, New York. 12mo of 200 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, price \$1.00 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

It is evident to us that Dr. Paul has written his book on Fever Nursing especially for the nurse and with a knowledge of the subject that can have been gained only by intimate association with routine hospital work. The care and management of each fever has been accorded special attention, as these subjects are of particular interest to the nurse. The author has divided his work into three parts: The first treats of fevers in general; the second of each fever individually; the third deals with practical procedures and information necessary to the proper management of the various diseases discussed, such as antitoxins, bacteria, urine examinations, poisons and their antidotes, enemata, topical

applications, antiseptics, weights and measures, etc. Altogether, it will be found that Dr. Paul has rendered a valuable service, not only to the nursing, but also to the medical profession, as much of the information given is not without the frequent needs of the general practitioner.

W. J. W.

*Karl Grier.* By LOUIS TRACY, author of "The Wings of the Morning," etc. Toronto: McLeod & Allen.

In these days, when five out of every ten persons believe in a measure in hypnotism, second sight or clairvoyance, a well-told story about a young man who possessed "the sixth sense" ought to prove interesting reading for the holidays. Karl Grier's strange experiences or trances begin in childhood in India, and later he moves to London. Speaking of uncommon phenomena in the material world the author remarks: "Luckily, in these days men have learned to inquire into causes instead of falling flat on their faces in superstitious awe when they encounter some new trick of nature." Louis Tracy has learned to use his pen descriptively as picturing Karl Grier's face. He says: "Two little lines had developed between his eyebrows at the junction of nose and forehead. That is nature's way of minting her crude gold—just a touch of the finger of experience, no matter if the agony be of soul or body, and there is no machine can stamp its token more indelibly."

W. A. Y.

*Taber's Pocket Encyclopedic Medical Dictionary.* Edited by CLARENCE W. TABER. Associated Editor, Nicholas Senn, M.D., Ph.D., LL.D., C.M. Beautifully bound in full flexible leather, gold stamping, gilt edges, patent thumb index; pocket size, 6¼x4¼ inches, 420 pages, vocabulary words in bold black type, special subjects and sub-heads in italics and capitals, good strong paper, substantially sewed. Chicago, Ill.: C. W. Taber, publisher, 1531 Monadnock Building. Price, \$1.50.

This book combines all the features of a medical cyclopedic and dictionary. Encyclopedic definitions of all organs, parts and diseases; Anatomy, Physiology, Therapeutics, Toxicology, Surgery, Medical Electricity and kindred subjects. Diagnosis, symptoms, incubation periods, prognosis and treatment, special vocabularies of operations, instruments, electromedical terms, poisons and antidotes. Examinations and numerous tables. Medical laws of all states and territories. Special clinical charts of temperatures and symptoms. Cross indexed, any word found instantly whether name is known or not. Over 5,000 subjects encyclopedically treated.

*Gynecological Diagnosis.* A Manual for Students and Practitioners. By ARTHUR E. GILES, M.D., B.Sc. (Lond.), F.R.C.S. (Edin.), M.R.C.P. (Lond.), Gynecologist to the Tottenham Hospital; Surgeon to Out-patients Chelsea Hospital for Women. With thirty-five original illustrations. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1906.

The author has given us an exceedingly useful work, and the original lines along which his investigations have tended cannot but commend them to every earnest thinker. The drawings and diagrams are essentially from the author's mechanical brain, and are of great assistance in his work. The diagnosis is carried up to a point to which any practitioner should be expected to go. Any one reading this book will be amply repaid for his trouble.

A. J. H.

*Sound and Rhythm.* By W. EDMUNDS. London: Bailliere, Tindall & Cox. 1906. Toronto: J. A. Carveth & Co. Pp. 96. 75 cents.

A great deal of time is spent in schools in teaching singing, but not much attention is given to the mechanism of sound and hearing. This most interesting little book strives to put in an intelligible manner the mysteries of sound, describing the nature of sound, how sound waves are produced and counted. This leads on to a short account of musical scales, organ pipes, time and movement, and, lastly, a brief description of the ear and the voice and their physiology.

J. M.

*The Dawn of a To-morrow.* By FRANCES HODGSON BURNETT. New York: Charles Scribner & Sons. Toronto: McLeod & Allen.

Frances Hodgson Burnett has never sealed a prettier story with her name; as ever, she is dramatic and intense in the beginning of her tale. It is of a worn-out earth-tired man, tempted to end everything with a pistol shot; despair is the only word life spells out for him. Amid the fog of life and nature in London he stumbles upon a waif of the streets, and strangely the light begins to creep in as this elfin girl meets, greets, cheers and shows him the under side of human existence, and through her strange environments and associates he learns the old lesson of the only reality, goodness, unselfishness and faith. In this part of her story the authoress shows the beauty of her thought, but true to art expresses it through the lips of nature, and by the voices of her children of the London slums. The one who fails to tuck this hour's reading into his grip this summer will miss much. The

man in the story says: "There is too much that is crying out aloud. A man such as I am—it has forced itself upon me—cannot leave such things and give himself to the dust." W. A. Y.

*The Examination of the Function of the Intestines by Means of the Test-Diet.* Its Application in Medical Practice and its Diagnostic and Therapeutic Value. By PROF. DR. ADOLF SCHMIDT, Physician-in-chief of the City Hospital, Friedrichstadt in Dresden. Authorized translation from the latest German edition, by Charles D. Aaron, M.D., Professor of Diseases of the Stomach and Intestines in the Detroit Post-Graduate School of Medicine; Clinical Professor of Gastro-enterology in the Detroit College of Medicine; Consulting Gastro-enterologist to Harper Hospital, etc. With frontispiece plate in colours. Crown octavo, 91 pages, extra cloth. Price, \$1.00 net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

Examination of feces as generally carried out consists simply in inquiries as to amount, color, consistency and frequency of motions, with an occasional ocular inspection. The Test-Diet is an effort to place these examinations on a scientific basis, and with simple tests, which may be used by any physician. While there are many problems which will long remain unsolved, we feel this work marks a distinct advance, and heartily welcome it as an important aid in our gastro-intestinal work. W. J. W.

*International Clinics.* A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; Jas. Stewart, M.D., Montreal; J. B. Murphy, Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; Jas. G. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume I., sixteenth series, 1906. Philadelphia and London: J. B. Lippincott Co. 1906.

Among the contributors to Volume I. of series sixteen, we find the names of Wm. Henry Battle, Surgeon to St. Mary's Hos-

pital, London; Jos. C. Bloodgood, Johns Hopkins University; G. Klemperer, Professor of Medicine, University of Berlin, Germany; David L. Edsall, Professor of Medicine, Assistant Professor of Medicine, University of Pennsylvania; Nicholas Senn, Professor of Surgery at Rush Medical College; Jas. Tyson, Professor of Medicine in the University of Pennsylvania, and Casey A. Wood, Professor of Clinical Ophthalmology in the University of Illinois, Chicago.

The volume consists of 17 lectures, covering treatment, medicine, surgery, obstetrics and pathology. It contains 8 colored plates, 20 or more ordinary plates, and 6 figures. The volume sells at \$2.00, and is splendid value.

*The Science and Art of Prescribing.* By E. H. COLBECK, B.A., M.D. (Cantab.), F.R.C.P. (Lond.), D.P.H. (Cantab.), Physician to Out-Patients of the City of London Hospital for Diseases of the Chest, Victoria Park, E.; Physician to the Metropolitan Dispensary; late House Physician St. Mary's Hospital, W., etc., etc.; and ARNOLD CHAPLIN, B.A., M.D. (Cantab.), F.R.C.P. (Lond.), Physician to Out-Patients at the City of London Hospital for Diseases of the Chest, Victoria Park, E.; Physician to the Metropolitan Dispensary, etc. Second edition, revised and enlarged. London: Henry Kimpton, 13 Furnival St., Holborn, E.C. 1906.

A useful collection of prescriptions taken from the different pharmacopeias of the London Hospitals, with notes on Pharmacy from the Extra Pharmacopeia and Other Formularies; also method of prescribing and administration of drugs. A. J. H.

*Experimental Psychology.* By EDWARD BRADFORD TICHENER M.A. (Oxon.), Ph.D (Leipzig). A Manual of Laboratory Practice. Vol. II. London and New York: Macmillan Co. Published in Canada by Morang & Co. Part I., Instructor's Manual, \$2.50. Part II., Student's Manual, \$1.40.

This work in two parts—for student and instructor—covers the field of quantitative experiment in the same minute and painstaking method evinced in the author's earlier work on qualitative experiment in Vol. I. His method are on similar lines to those of Müller, to whom he acknowledges his indebtedness, but on many points he has carried his researches further than this writer. The work is provided with every assistance to the student in the way of references, index, etc., and is dedicated to Delboeuf. It is a valuable manual in the pursuit of a study which, as Fechner says, is "not difficult in itself, but demanding patience, concentration, endurance and fidelity."

D. C. M.

*Saunders' Question Compend—Essentials of Genito-Urinary and Venereal Diseases.* By STARLING S. WILCOX, M.D., Professor of Genito-Urinary Diseases and Syphilology, Starling Medical College, Columbus, Ohio. 12mo of 313 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$1.00 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This little work is a worthy addition to Saunders' Question Compend Series, a series that has reached a sale of over 265,000 copies. In this present work by Dr. Wilcox all genito-urinary and venereal diseases are fully detailed in the terse, direct language of question and answer, so that the student grasps immediately the point in question. Illustrations are freely used, adding much to the value of the book; and the large clinical experience of the author stamps it at once with accuracy and thoroughness. For the student there is none better; and the practitioner will find in it much that he is called upon every day to put into practice.

W. J. W.

*The Health of Our Children in the Colonies.* A Book for Mothers. By DR. LILLIAN AUSTIN ROBINSON. London, New York and Bombay: Longmans, Green & Co., 39 Paternoster Row.

The above, as its title page indicates, pretends not to a scientific treatise, but is written in simple vulgar English, for the education and guidance of parents and those in charge of the nursery. The occasion for it is the great infant mortality in British India and South Africa, of which the authoress had some years of personal experience. As such it is valuable, and can be heartily recommended as a useful guide and help to those in charge of the little ones when, perhaps, medical aid is not easily obtained.

A. R. G.

*Diseases of the Eye.* A Hand-book of Ophthalmic Practice. By G. E. DESCHWEINITZ, M.D., Professor of Ophthalmology in the University of Pennsylvania. Fifth edition, revised and enlarged. Octavo of 894 pages, 313 text-cuts and 6 chromolithographic plates. Philadelphia and London: W. B. Saunders Company. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto. 1906. Cloth, \$5.00 net; half morocco, \$6.00 net.

The fifth edition of this well-known book on the eye is an improvement of an always excellent work. The first edition appeared in 1892. Greater clinical experience has led to an expression of personal opinion on subjects which in former editions were dealt with on the authority of others.

Many new subjects have been introduced, such as X-ray treat-

ment of epithelioma, of trachoma, forms of keratitis punctata, Worth's amblyoscope, stovaine and alypine, the new anesthetics; Haab's method for removal of foreign bodies, and Sweet's X-ray method of localizing them. The illustrations, which have always been a feature, are increased by thirty-three cuts. J. M.

*A Text-book of Materia Medica, Therapeutics and Pharmacology.*

By GEORGE F. BUTLER, Ph.G., M.D., Associate Professor of Therapeutics in the College of Physicians and Surgeons, Chicago. Fifth edition, thoroughly revised by Smith Ely Jelliffe, M.D., Ph.D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in Columbia University (College of Physicians and Surgeons), New York. Octavo of 694 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$4.00 net; half morocco, \$5.00 net. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto.

Dr. Butler has thoroughly revised and rewritten this fifth edition to accord with the new pharmacopeia. Thoroughly up-to-date, with all obsolete matter eliminated, and the toxicologic and therapeutic effects of the newer compounds thoroughly arranged, no more painstaking volume on this subject has ever been written, and it is a pleasure to recommend such an up-to-date work.

A. J. H.

*The Physical Examination of Infants and Young Children.* By

THERON WENDELL KILMER, M.D., Adjunct Attending Pediatricist to the Sydenham Hospital; Instructor in Pediatrics in the New York Polyclinic Medical School and Hospital, New York; Attending Physician to the Summer Home of St. Giles, Garden City, New York. Illustrated with 59 half-tone engravings. Philadelphia: F. A. Davis Company, Publishers.

The above little book, 86 pages in all, is full of valuable hints and reminders, instruction and demonstration. Any practitioner will be more than repaid by its perusal. It is beautifully illustrated, concisely written and intensely practical, and is a book one will read with pleasure and satisfaction.

A. R. G.

*A Manual and Atlas of Dissection.* By SIMON MUNRO YUTZY, M.D., Instructor in Osteology and Demonstrator of Anatomy, in the University of Michigan. Three hundred and fourteen illustrations. Philadelphia: P. Blakiston's Son & Co.

This is a student's guide to be used in the dissecting room. It corresponds somewhat to the "Guides for Students" distributed in the Anatomical Department in the University of Toronto,

telling how to approach each dissection and numerating the structures to be looked for. The book is profusely illustrated with figures taken principally from Morris' & Holden's Anatomy.

s.

Messrs. Archibald, Constable & Co. will very shortly publish "Recent Advances in the Physiology of Digestion," by Prof. E. H. Starling, M.D., F.R.S., Jodrell Professor of Physiology. The book contains illustrations and diagrams. The author expresses a hope in his preface that this volume may serve to interest a large audience of students and medical men in the growing importance of these subjects, and that it may give them an idea of the aims and objects of this particular branch of physiological research.

Announcement is made by Wm. Wood & Co., New York, of the publication of a new work on the science and art of surgery, to appear in eight royal octavo volumes, profusely illustrated, and to be entitled "American Practice of Surgery."

Although other attempts have been made in recent years to publish a book which would faithfully record the part taken by Americans in advancing the science and art of surgery, and which should give an authoritative picture of surgical practice as it is carried on to-day by the recognized masters of the art, time has shown, as it seems to us, that all these efforts were made somewhat prematurely. It is our present belief that only within the last two or three years has the practice of surgery in this country reached such a mature stage of development that one might reasonably expect to secure for the contemplated book the desired character of authoritativeness, and also might anticipate that this character would possess some degree of permanence. It is with these ideas in mind that we have decided to undertake the publication of the "American Practice of Surgery"; and, as the first step, we have commissioned Dr. Joseph D. Bryant and Dr. Albert H. Buck, of this city, to act as the editors of this important treatise. These gentlemen are so well known to the profession at large—the one as a teacher and author in surgery of established repute, the other as an editor of wide experience—that we do not need to say anything further in regard to their fitness to be at the head of an enterprise of this nature. A survey of the list of writers whom they have invited to contribute the articles of which this great work is to be composed, affords convincing evidence that the men selected are among the very best to whom such responsible tasks could be entrusted.

We have had the present scheme under consideration for several years and have become more and more convinced, as the time for carrying it into effect approached, that it would not be practicable to cover the entire range of surgery, in a fairly thorough fashion, within the limits of a series of only five or six volumes

of the usual cyclopædic form. After very careful consideration, and with the full approval of the editors, we have decided to publish the work in eight royal octavo volumes; a total of more than six thousand pages. Within these limits we believe that it will be possible for our contributors to set forth the results of their extensive experience with such wealth of detail as to render the new "Surgery" simply indispensable to their less experienced professional brethren; and in these days of specialized work the most experienced surgeons must recognize the fact that even they are at times in need of additional information in many fields of surgical work.

The material contained in "American Practice of Surgery" will be entirely original, written for this work alone, and naturally embracing much that has never before been published.

No foreign writers have been invited to take part in the work, and it will, for this reason, be distinctively American in character.

Illustrations in medical works are of the greatest possible assistance when wisely employed to elucidate the author's meaning, and we propose to introduce them liberally in this work. As regards execution and value they will be of the highest character.

The work will be printed from plates made from specially cast type, and printed upon paper of a quality to combine perfect press-work with ease in reading.

#### PAMPHLETS, REPORTS, ETC., RECEIVED.

Eighth Annual Report of the National Sanitarium Association for 1904-5, issued from the Secretary's office, National Sanitarium Association, 28 Adelaide Street West, Toronto, Canada.

Report relating to the Registration of Births, Marriages and Deaths, in the Province of Ontario for the year ending 31st December, 1903. Printed by order of the Legislative Assembly of Ontario, Toronto. Printed and published by L. K. Cameron, Printer to the King's Most Excellent Majesty. 1905.

"Trachoma (Granular Conjunctivitis)," by Robert Reid Rentoul, Doctor of Medicine, late Member of the General Council of Medical Education for the United Kingdom; Member of the Royal College of Surgeons, England; Licentiate of the Royal College of Physicians, Edinburgh; Hon. Member of the Manchester Medico-Ethical Association; Member of the Society for the Study of Inebriety; author of "Woman's Health," "Causes and Treatment of Abortion," "Medical Charity Reform," "Proposed Sterilization of Certain Mental and Physical Degenerates;" Witness before two Select Committees of the House of Commons upon Death Registration and Medicines. 2s. net. Published by Cornish & Sons, 37 Lord Street, Liverpool. 1904.