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## CONTENTS.

### ORIGINAL COMMUNICATIONS.

Some Observations upon the Nature, Symptoms and Treatment of the Pre-tubercular Stage of Pulmonary Consumption .....	217
The Real Rewards of Medicine .....	224

### SOCIETY PROCEEDINGS.

The Montreal Medico-Chirurgical Society .....	228
Retro-peritoneal Myxo-lipoma .....	230
Intra-mural Myoma of the Uterus .....	230
Dermoid Cysts of both Ovaries .....	231
Fibrous Cystitis .....	232
Bradycardia .....	232

### PROGRESS OF SCIENCE.

The Arterio Sclerotic Contracted Kidney .....	233
Peroxide of Hydrogen in Diphtheria .....	234

### EDITORIAL.

The French Medical Schools .....	235
Vital Statistics in the Province of Quebec .....	235
The Treatment of Acute Catarrhal Inflammation of the Middle Ear .....	236

### BOOK NOTICES.

A Practical Treatise on Materia Medica and Therapeutics .....	237
Treatise on the Theory and Practice of Medicine .....	238
Elementary Physiology for Students .....	239
Modern Gynecology .....	239
Methods of Precision in the Investigation of Disorders of Digestion .....	239
Dr. Jacques Nattus, Hygiène des Français .....	240
Transactions of the College of Physicians of Philadelphia .....	240
A Remarkable Respiration Record in Infantile Pneumonia .....	240
Reprinted from University Medical Magazine, March, 1893 .....	240
Cholera: Its Causes, Symptoms, Pathology and Treatment .....	240
The Literature of Sea-Sickness .....	240
Les Accidents de la Première Dentition .....	240

## Original Communications.

### SOME OBSERVATIONS UPON THE NATURE, SYMPTOMS, AND TREATMENT OF THE PRE-TUBERCULAR STAGE OF PULMONARY CONSUMPTION

BY

F. M. R. SPENDLOVE, M.D.

Disease may be said to have three different methods of expressing itself: First, by alteration of function without appreciable alteration in structure; second, by alteration in structure, but of a temporary nature only, the parts returning to their normal condition upon the removal of the cause; third, by alteration in structure of a permanent character, the affected part being unable to return to a normal state.

Pulmonary consumption may be taken as a type of a disease which passes through

all the different phases by which disease in general expresses itself. It is not the object of this paper to follow the disease through its whole course, but to direct special attention to those alterations in function, which invariably precede the local lesions—the pre-tubercular stage.

An endeavor will be made to show: 1, the origin and nature of these “shadows of coming events;” 2, that they can be easily recognized by symptoms both subjective and objective; 3, that their removal is easily affected, and that the same lines of treatment adopted for their removal gives the best results yet attained in the treatment of the disease when already established.

I. *Causes.*—As to the nature and origin of these disturbances of function constituting the pre-tubercular stage, it is the object of this paper to show that flesh food leaves an amount of nitrogenous waste in the circulation, which, by increasing arter-

rial tension, pulse rate and temperature, induce degenerative changes in the capillary system by which the "internal respiration" of the tissues is interfered with, and as a result a disturbance of their function leading to the initial lesions characteristic of pulmonary consumption.

In order to show reason for the faith that is within us, recognized authorities in anatomy, physiology, pathology and therapeutics, will be laid under heavy contribution. "The cells of which the higher organisms are composed live in the inter-cellular fluid or lymph which bathes them. This nutritive fluid is continually being removed by fresh supplies exuding from the blood vessels into the lymph spaces which surround the cells, the excess being removed by absorption, either by the veins or lymphatics. Besides this, an interchange of gases and of solids (internal respiration) takes place by diffusion between lymph and blood. It is only while the blood is passing through the capillaries that this interchange between the blood and the lymph (this internal respiration) can take place."

(1) The healthy function of an organ, therefore, depends, in a great measure, upon the integrity of its capillaries."

Animal food has long been recognized by those who have given the subject their careful attention as an active agent in inducing high arterial tension and its consequent degenerative changes in the vascular system. In reference to this point, Fothergill states: (2) "Azotized foods furnish the materials for our tissues, for whose removal they are required. But this is much less than is supposed, and tissue repair requires but a comparatively small part of our plastic food. The rest of the peptones, which are produced in each act of digestion, are split up, in the liver, into glycogen and nitrogenous waste. All, or almost all, of this nitrogenous waste is superfluous. The

"consequences of the blood being highly charged with these waste products are high arterial tension, hypertrophy of the muscular walls of the arterioles and left ventricle."

In consequence of this high arterial tension the blood escapes with greater difficulty from the arteries into the veins, (3) thus interfering with the interchange of gases and solids (internal respiration) between the blood and lymph. (4)

The influence of non-nitrogenous foods in lowering blood pressure has received the attention of those high in authority. Prof. Parkes, as a result of his observations upon this subject, states: (5) "A non-nitrogenous diet is followed by a lowered blood pressure, a diminished arterial tension perceptible within twenty-four hours after commencing the diet."

The influence of animal food in increasing the heart's action is well known. Lady Paget, in her article in the *Nineteenth Century* for April, 1892, (6) states: "While the meat-eater's heart has seventy-two beats in the minute, the vegetarian's has only fifty-eight; therefore, 20,000 beats less in twenty-four hours."

That the temperature in those who abstain from meat should be lower than in the meat-eater is to be expected from the lesser frequency of the heart's action in the former. The decrease appears to correspond with the pulse rate, being from one-half to one and a half degree below the average in the meat-eater. It is a little lower in the summer than in the winter, probably on account of the diet containing a larger proportion of acid fruits during the summer months. Digestion also influences it slightly, it being about half a degree higher while the process is going on. In observations upon vegetarians extending over a period of three years, the average has been about 97° with a pulse rate of sixty. It will be seen from these facts that, from high

arterial tension, the natural equilibrium between the internal and external pressure is disturbed, capillary stases and exudation take place most frequently in the line of the least resistance, that is, where the smallest amount of external pressure is exerted upon the capillary system: viz., the lungs, serous and mucous membranes.

The peculiar arrangement of the circulation in the lungs is probably one of the chief reasons, next to their glandular structure, why these organs are more frequently the seat of tubercular disease. Their nutrient arteries have no veins. Their blood is re-aëated where they do their work, and finds its way into the venous radicles of the pulmonary vein as arterial blood. (7). Stasis in the pulmonary capillaries reacts upon the mucous membrane of the true respiratory system, inducing hyperæmic, desquamation of epithelium, and exudation.

Now, as to the question, why do we have from the same cause, viz., high arterial tension and pulmonary stasis, an exudation, which in the one case results in a chronic fibroid, and in the other an acute tubercular consumption, two diseases differing in their course, symptoms, physical signs and termination, having nothing in common beyond the fact that both are wasting diseases and both affect the same organs,—the lungs.

Our present knowledge upon this subject may be summed up in the one word, *temperament*. Divide the human family into two classes. In one class, place all those having an excess of carbon in the composition of their tissues, and characterized physically by dark hair, dark skin, angularity of figure, languid circulation,—call these, in lieu of a better name, the lymphatic temperament. The exudation in individuals of this temperament will, irrespective of treatment, have a strong tendency to take on a fibroid character.

In the second class, place all those characterized by light or brown hair, florid complexion, rotundity of figure, active circulation, having an excess of oxygen in the composition of their tissues, call these the sanguine temperament. The exudation will, in individuals of this temperament, often regardless of all known therapeutic measures, early become tubercular, run a rapid course terminating fatally—acute tubercular phthisis. These are the extremes, combinations exist, as the lymphatico-sanguine and the sanguinolymphatic in which the exudation will be modified accordingly.

II. *Symptoms*.—The cells composing the higher organism when deprived of oxygen do not all die at the same time; some are able to live longer without fresh supplies of oxygen than others. (8)

As in the death of the cells, so in the disturbance of their function from impaired nutrition, they are not all equally affected. The higher nerve centres are the first to suffer usually in the following order:—

*Intellection*.—There is disinclination and incapacity for continued mental effort, the mind is easily confused, forgetfulness, despondency, and annoyance at little things are common. Sleep is disturbed; in the early stages a desire and ability to sleep at all hours, and especially after meals, later insomnia is a marked and almost constant feature.

*Special Senses*.—The eyes are early affected, they are weak, becoming painful and injected on using them but for a short time. Partial deafness and tinnitus aurium are frequent, more so in the lymphatic, while the eye affections are more common in the sanguine temperament.

*Vaso motors*.—Through their irregular action, morbid flushings are common, these do not, as a rule, appear at the time of effort or emotion,—pallor is more common then, but they follow after, when the ten-

sion is somewhat relaxed and the capillaries have had time to dilate. Excessive perspiration, especially of the hands and feet, is of frequent occurrence. Those in whom the blood contains a large amount of nitrogenous waste seldom perspire freely, the surface becomes hot, dry and painful on exposure to heat.

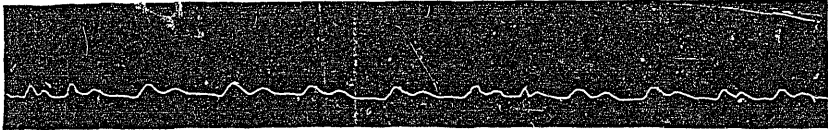
*Nerve Fibres.*—Numbness, prickling and cramps in the extremities are common, as are also neuralgic pains in various parts of the body; the latter are usually increased by climatic changes.

The symptoms referable to the digestive organs vary somewhat with the temperament. In the lymphatic, they are those usually accompanying deficient secretion; in the sanguine, those of hyper-acidity. The surface of the tongue gives early and important information. In the lymphatic temperament, the surface is usually fissured; at first these may be but few in number, situated on each side of the median raphé, and running at right angles to it; later, the surface may be traversed in every di-

rection by these fissures, which may be of considerable depth. At the same time the papillæ disappear, the surface becoming smooth and shining. The stippled tongue of Dickenson is observed in this temperament.

In the sanguine, the tongue is rarely fissured, the surface is covered with a greyish white coating, the papillæ enlarged, and projecting through the coating as minute red points, the whole resembling somewhat the "strawberry and cream" tongue of scarlatina.

Naso-pharyngeal catarrh is common in both temperaments. The characteristic pulse of high arterial tension is described by Ringer (9) quoting Dr. Broadbent as follows: "The pulse is often so slight that it might be mistaken for a weak pulse, but its incompressibility prevents falling into this error. It can be compressed only by using considerable force. It is, in fact, a slightly pulsable pulse, for owing to the high arterial tension the vessels with each beat of the heart undergo but little dilatation, hence the pulsation is indistinct."



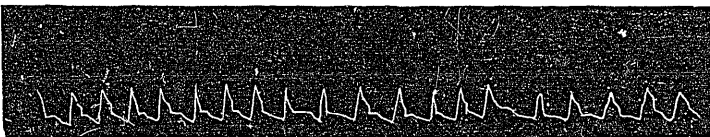
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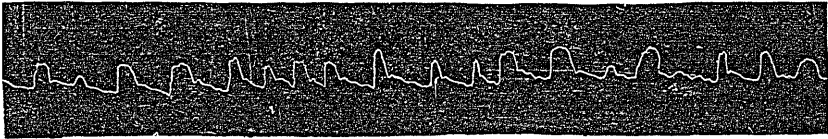
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No. 3.



No. 4.



No. 5.

Sphygmographic tracing No. 1 is from the radial artery in a young man, twenty-one years of age, in whom meat food entered largely into his dietary. Contrast with No. 2 from a young man of the same age, who has never eaten meat. The indistinct pulsations of the former are in marked contrast to the latter.

No. 3 is from a gentleman about sixty years of age, lymphatic temperament, sedentary habits, a large consumer of animal food, has fibroid left lung. The pre-tubercular stage was well marked and of considerable duration.

No. 4 is from a gentleman fifty-four years of age, who has not eaten meat for thirty years, and during that time he has not lost a day from professional duties on account of illness. He is now in perfect health.

No. 5 is from a person past middle life, in whom evidences of arterial degeneration are well marked, the diet containing about an average proportion of flesh food, with but little active exercise.

As is to be supposed from the high tension, the watery constituents of the urine are in excess. The quantity is rather above the normal, sp. gr. low, sometimes down to 10.02; no albumen nor sugar. Micturition is frequent as a rule, and not always wholly under the control of the will.

In the sanguine temperament with its excess of oxygen, there is greater functional activity of all the organs and the disturbances of nutrition preceding the initial lesions of pulmonary consumption are characterized by greater activity and the stage of shorter duration than in the lymphatic.

In this temperament, slight attacks of fever coming on at irregular intervals is

the connecting link between this stage and the tubercular lesions, while in the lymphatic, mental depression, impure air and local causes are important factors in causing the pulmonary exudation constituting the fibroid variety of the disease.

It is not the object of this paper to show that this stage or these symptoms are of themselves *per se* sufficient to cause consumption. In some cases, and with proper care, individuals in whom many of the symptoms constituting the pre-tubercular stage are well marked may live to old age. In others it may show itself in almost any form of organic disease, according to the exciting causes; but the point to be emphasized is this: that pulmonary consumption, except in a few instances in which it follows immediately after some acute disease, as typhoid fever, is always engrafted, so to speak, upon this group of symptoms, which, taken together, constitute the pre-tubercular stage.

III. *Treatment.*—The indications for treatment are the same in all stages—pre-tubercular, fibroid, tubercular, viz.:

1. To restore the circulation to a normal condition by reducing arterial tension;

2. To keep the air cells dilated and the air passages aseptic;

3. To treat constitutional conditions according to their special indications. The first indication cannot be carried out successfully by drug medication alone. The elimination of all flesh foods and broths from the dietary is an absolute necessity to obtain certainty in results.

Both the medical and lay mind are so wedded to the idea that flesh food in some form is essential to the health and well being of the individual, that in some

cases it is found practically impossible to successfully carry out this part of the treatment.

Permission to eliminate meat from the diet of the patient is only given by the medical attendant after a severe struggle; but when it comes to beef tea and broths, to suggest a separation of these from the sick room is rank heresy, and is to be put down with a strong hand. The reasons of this are: first, a lack of knowledge of dietetics by those in authority in other matters relating to the health of the human family.

The graduates in medicine of the present day receive no instructions in dietetics. Beyond a few lectures each session upon the proximate principles of food, our medical colleges teach absolutely nothing regarding the influence of diet upon the human organism in health and in disease, and as a consequence what information our medical students receive upon this is confined to his hospital, experience where the diet is selected, upon economical principles, by a committee of management composed of a majority of *laymen*.

Chemistry has long since shown beef tea to be composed of salts and putrefactive materials in solution, to be in fact *urine*. Physiology has shown it to be a direct poison to the protoplasmic cells composing the muscle and nerve tissue. Pathology has shown it to be one of the best known medicines for the cultivation and development of micro-organisms. Clinical observation shows it to be an important factor in the causation of those diseases to which the physician is putting forth his best endeavors to combat; yet in our hospitals and public institutions, where the physicians of the present day get their knowledge of dietetics, a *broth* diet is considered the proper food for those who are too ill to keep body and soul together upon a *full* diet.

Half a century ago Sylvester Graham

wrote: (10) "Practising physicians have "not all been very careful to make themselves thoroughly acquainted with those "physiological laws which should govern "them in prescribing the diet of the sick, "and this probably is one of the principal "reasons why they have not been more "successful in the treatment of disease."

To show the progress made in dietetics during the past fifty years, I will quote from a recent writer (11) who gives the present standing of the profession upon this subject: (The italics are my own.) "Up "to the present time *we have no knowledge "upon the subject of dietetics*; we have "known only that a man loses in twenty- "four hours certain quantities of nitrogen "and carbon, in consequence of which he is "obliged, in order that he should not lose "weight, to take each day a mixture of "these elements."

To show the progress made in the successful treatment of disease since Graham's time, I will quote from statistics of the death rate in one disease only—pulmonary consumption. "That terrible disease "causes one-seventh of the whole mortality in our latitudes; and if we exclude "children and old persons, it causes the "death of one-third of the population," (12) and this, a curable disease, as is shown by the fact of its having undergone spontaneous cure in about one-third of all cases upon which *post mortem* examinations are made, and a disease which probably more than any other is due to dietetic causes.

A second difficulty in the way of carrying out this part of the treatment comes from the patients themselves. Fothergill (13) recognizes this in the following:—"To a "large number of persons the pleasures of the "table are the best part of their existence. "Even while conscious, in many cases, "of the benefits derived from a restricted "dietary, these persons will take an early "opportunity of consulting someone else,

" in the hope of prevailing upon their new  
 " medical adviser to recommend a more  
 " liberal diet scale. As it is a marked trait  
 " of humanity to believe readily what is  
 " agreeable to believe, the advice of the less  
 " skilled man is adopted; and it is only  
 " when the consequences follow, as in time  
 " they do, that a long deferred repentance  
 " sets in—usually too late to be of service."

What diet shall we prescribe in high arterial tension? Briefly this, the same as in health, viz., *cereals* and *fruits*.

Bread or gems made from whole wheat meal; porridges or mushes of wheat; oat, Indian corn coarsely ground or rolled, singly or in combination; puddings of rice, sago, tapioca with fruit; apples, peaches, grapes, and the smaller fruits raw, cooked or both; vegetables should be but sparingly used, especially by those who cannot take active exercise, as they bulk for bulk contain much more nitrogen than animal food.

Raw and cooked fruit should not be taken at the same meal. No tea nor coffee. Milk may be allowed as a drink, better taken skimmed, the cream at meals with the grains and fruits, the milk drunk between meals, slightly warmed. The following extracts from Leaming upon milk-drinking deserve to be more widely known: "Lord Bacon says, in effect, that many believe they cannot take milk without becoming bilious, because they take but little at a time, which coagulates; but if they take large draughts, the acid is diluted, and digestion takes place. I have repeatedly demonstrated the truth of his observation. Two or three quarts of milk may be taken daily for weeks, even by a feeble person. The stomach must be educated to receive this quantity, and it must be done gradually. By the constant use of milk the stomach dilates and the blood vessels enlarge, and more nutrition is carried to the capillaries and the weight of the body will be increased. The increase in

" weight, which comes to drinkers of large  
 " quantities of any liquid, is owing to  
 " this acquired capacity to receive nutrition.  
 " The increasing deposit of fat in the sys-  
 " tem is an assurance that phthisis is held  
 " in abeyance."

The second indication in treatment is to keep the air cells dilated and the air passages aseptic. To those who cannot make climatic changes suitable to their temperament, the variety and stage of the disease, and there are many compared with the number affected, antiseptic inhalations are the *sine qua non* of successful treatment. It is not a matter of indifference as to the inhaler or inhalants that we employ. A study of the mechanism of the circulation in the tidal and residual air will show the inutility of attempting to carry medicinal substances to the air cells in sufficient quantities to be of therapeutic value with air, water, or steam as a *vehicle*. To be successful, the tidal and residual air must be saturated with the *medicament*.\* A failure to recognize this fact is one of the principal reasons why the practice of inhalations in the treatment of diseases of the respiratory organs has not found a more permanent resting place in the practice of the profession. Careful regulation of the diet, and the frequent use of antiseptic inhalations offers the best possible means of protection against the disease for those predisposed to it from constitutional causes and direct infection.

To help us in carrying out the third indication successfully we may obtain valuable information studying the course taken by nature in her *spontaneous* cures endeavoring to induce early fibroid changes in the pulmonary exudate by introducing compounds into the system rich in *carbon*.

In order to entitle a remedy or method of treatment to acceptance by the profession, it must stand the test of clinical uses

\* The only inhaler, to the writer's knowledge, by which this can be accomplished, at the will of the operator is the Butcher Inhaler.



at the bedside. Herein lies the strength of this.

During the eighteen months that the treatment of phthisis has been carried out on these principles, excluding for statistical purposes only those in whom the tubercular lesions had involved other organs than the lungs, there have been *no deaths*. Patients who, at the time of commencing treatment, a year and a half ago, were confined to the sick room with hectic, emaciation, night sweats, and physical evidences of cavities of considerable size are to-day and have been for the past twelve months, following their usual occupations with a fair measure of health.

1. Brunton Pharmacology, Therapeutics and Materia Medica. Third Edition.
2. Fothergill's Hand-Book of Treatment. Second American Edition.
3. Ringer's Hand-Book of Therapeutics.
4. Brunton (*idem*).
5. Prof. Parkes, *Lancet*, May 23rd and 30th, 1874.
6. Merk's Bulletin, July, 1892.
7. Leaming, Heart and Lungs, 1893.
8. Brunton (*idem*).
9. Ringer (*idem*).
10. Science of Human Life.
11. Dr. Leven in Good Health.
12. Braithwaite, Vol, LXXXV.
13. *Idem*. 2709 St. Catherine Street. MONTREAL, July 15th, 1893.

### THE REAL REWARDS OF MEDICINE.

The Valedictory Address Delivered at the Commencement of the Jefferson Medical College, May 2, 1893.

BY W. W. KEEN, M.D., LL.D.,

Professor of the Principles of Surgery and of Clinical Surgery.

GENTLEMEN OF THE GRADUATING CLASS :

The revolving cycle of the passing years makes it to-day my pleasing duty to say a parting word of advice, of caution, and of cheer to you. And first, let me say the word of cheer; not only because it is the pleasantest to be spoken, but because in

your earlier years of practice you will need it far more than any other word I could speak to you. I am sure that the public do not understand, nor do they appreciate, not only the many years of study before a young doctor can even begin to be self-supporting, but the many years of discouragement, with an empty purse and accumulating bills, which beset his early professional life. Should he desire to enter upon the profession *thoroughly* equipped, it means, first, the years of preparation in the common schools, from seven to eighteen; then four years in college, then three, or, as soon will be the case, four years of study in the Medical School, then at least a year in a Hospital, and, if possible, a year or two abroad. In other words, twenty-one years of study are practically what is required, completely to fit a man even to begin to earn his living by the practice of medicine in any of its branches.

And in his earlier years the doctor is paid in many cases far less than the pittance which is bestowed even on the humble day-laborer. I remember very well one of the brightest young men in the profession, who had all the advantages I have just described, and who, some time after having "hung out his shingle," came to me greatly discouraged, and said, "I think I shall have to give up the practice of medicine." "Why so, Doctor?" said I in surprise, knowing his ability and future promise. "Because," said he, "I do not think I can earn enough to support myself and my wife" (for he was already married), "and I do not wish to be dependent all my life on my father." "How much have you earned by your practice since your graduation?" I asked. He replied: "It is now seven months since I opened my office, and I have received exactly \$2.50."

In other words, in 210 days he had received a little more than one cent a day! And in my own personal experience, when I had been in practice for five years, in the

month of June I paid and received all told seven visits, of which three were charity visits, two patients ran away and paid me nothing, and two paid me \$1.00 each.

Many years ago I was returning in the street cars, at six o'clock in the morning, from St. Mary's Hospital, where I had spent the entire night in attending to the victims of a terrible fire in a mill, and, seeing my case of instruments, a laborer, evidently an intelligent man, just starting for his summer day's work, accosted me, and wanted to know where I had been. Upon my telling him what I had been doing, he said to me, "I suppose you'll get a right good salary for working all night and doing a lot of operations;" and he was completely dumbfounded when he learned that not only had I gone to the hospital at my own expense, but had served the institution for years without charge, and that every hospital surgeon, and hospital physician, and hospital resident in the city gave his labor and the best work of his life for years, entirely free of charge to the patients under his care.

Yet time brings its rewards, and you will find if you do good work that your friends and neighbors will after a time surely recognize your merit. If you have genius you may gain a fortune, but even mediocrity is sure of a competence if you are faithful and honest in your work. No man need ever despair of making at least a decent living by the practice of medicine.

But pecuniary rewards are not the best that you will get, if you cultivate everything that ennobles the profession and discourage all that tends to make it merely a trade by which to make money. What, then, are the real rewards which the profession of medicine holds out to you? They may be sketched somewhat in the following manner: First, you will enjoy a sense of daily duty faithfully performed. This fills a noble heart with a glow, far beyond the satisfaction of an

expanding balance in bank or a growing hoard of stocks and bonds.

"Count that day lost, whose low descending sun  
Views from thy hand no noble action done;"

if you do, you may be sure that no day will be lost, but will be counted among your great gains. Duty is often irksome drudgery, but put your heart into it and the lowest drudgery becomes the highest service and will not fail of its reward. As quaint old George Herbert says:—

"A servant with this clause  
Makes drudgery divine;  
Who sweeps a room as for Thy laws  
Makes that and the action fine."

Life for the most part is a matter of trivial details. The growth of character, like all other growth in nature, is the result of the steady multiplied activity of many small parts. The giant oak which resists the stoutest storm does so because in the many days of soft rain and bright sunshine its roots were spreading far and wide in the fertile soil by the growth of cell upon cell and fibre after fibre, its strength being tested and confirmed by summer breezes and occasional wintry winds, and at last when the storm comes in its fury, the mighty tree has so faithfully done its duty in its minute but constant growth, that it stands unmoved and unassailable. So the small daily duties of life, if faithfully performed, will gradually develop your character and fix your principles so firmly, that the storm of temptation, however violent, cannot bend or swerve you from the path of duty.

This daily duty may lead you into danger, which you must face with the coolness and courage of the soldier on the field of battle. True, for the soldier of science and of duty there is no blare of trumpets, no beating of drums, no shouts of the combatants, no public honors, no laurel wreath: for the young physician is in the lowly home of poverty, battling with the angel of death, exposed to the poison of diphtheria, of yellow fever, of cholera or of

typhus, and may himself fall in the encounter, a victim to his brave sense of duty to his patient; and the surgeon in the hospital exposes himself daily to the dangers of blood-poisoning, dangers which I have seen in more than one case cut short a life of promise and hide it in the grave. But he lives in grateful hearts, unknown though he may be to the pages of history, or even beyond a small circle of equally obscure friends. But their prayers and cries are heard of the good God, and the Recording Angel will enter every such unselfish deed in God's Book of Remembrances.

"They have no place in storied page,  
 No rest in marble shrine;  
 They are past and gone with a vanished age,  
 They died and 'made no sign.'  
 But work that shall find its wages yet,  
 And deeds that their God did not forget,  
 Done for their love divine—  
 These were the mourners, and these shall be  
 The crowns of their immortality."  
 O! seek them not where sleep the dead,  
 Ye shall not find their trace:  
 No graven stone is at their head,  
 No green grass hides their face;  
 But sad and unseen is their silent grave—  
 It may be the sand or the deep sea wave,  
 Or a lonely-desert place;  
 For they need no prayers and no mourning bell—  
 They were tombed in true hearts that knew them  
 well."

No other calling has ever had such a multitude of brave, unselfish, unknown, silent martyrs, who have freely risked all that is dearest and best, even to life itself, as our own Profession. But their lives have not been lost, for, as Ruskin has well said, "Every noble life leaves the fibre of it interwoven forever in the work of the world."

But not only will you have this sense of daily duty well done, but if you use your time well there will be a daily personal growth in knowledge. To this end, study after you have graduated, as you have never done in your so-called "student-life." Make even your failures a fertile soil for a

larger growth and better achievement, for

"The tree

Sucks kindlier nurture from a soil enriched  
 By its own fallen leaves; and man is made,  
 In heart and spirit, from deciduous hopes,  
 And things that seem to perish."

You will have earned each day a certain modicum of money, but you will also have added to the store of knowledge in your mind, to be of use to your future patients; so that your gains cannot be measured merely in dollars and cents, but in wider knowledge, in pregnant ideas, in mental growth, in better judgment, in a better balanced mind, and in masterful ability to cope with dangers by reason of such larger knowledge.

More than this you promote the general welfare and add to the prosperity of the community in which you live, by directly diminishing the loss of time and money to the wage-earners of the community. You restore the sick mother to the charge of her household, the disabled father to his family—nay, in not a few cases you save life itself. And how much a single life may mean to a man's wife, his children, his business, his church, his community, his nation. Even if you cannot save life, you lessen suffering and bring cheer into the sick-room, and you smooth the pillow of death itself.

In Preventive Medicine you can do still more, and on a far larger scale, by educating the community as to personal and municipal health, by pointing out the evils of dirt, of filthy streets, of foul sewers, of impure water, of tuberculous meat and milk, of crowded tenements, of unwise clothing, of want of exercise, of want of the daily bath, of errors of food and drink, of vile habits, and a host of other enemies to human health and happiness. This, believe me, is to be the greatest function, the most splendid achievement of the coming years.

And lastly, in this brief sketch which I am giving you, you should do one thing

more. Remember that science looks to you for enlargement of its boundaries, by conquests in the domain of ignorance. I envy you your position on the threshold of the glorious twentieth century. The passing century has seen great victories, but the next one will see far more. Our profession is not complete, "*totus, teres, atque rotundus*," but I believe it has, as it were, just begun its beneficent career. The discovery of Anesthetics and of Antisepsis, and the creation of the science of Bacteriology have been the three great triumphs in medicine of the nineteenth century. You enter upon this great heritage, freely bequeathed to you by your predecessors; you begin where they left off. With such advantages you should make still greater advances, and I believe that you are on the eve of still more blessed and portentous discoveries. The cause and the cure of the great destroyers of human happiness and human life are to be discovered by you. You may vanquish cholera, consumption, typhus, yellow fever, scarlet fever, and other demons of disease, and there may be even in your own class—why not?—an unsuspected peer of Harvey, of Jenner, of Lister, of Pasteur. By carrying on to its utmost limits the good work already begun in the Jefferson Medical College, by earnestness in study, by exactness in observation, by gathering your facts, shrewdly comparing and correlating them, by wise experiments to ascertain the correctness of your conclusions, and then by publishing them for the information and enlightenment of the profession, you will fill out the duty you owe the Community, the College and the Profession. The Alumni of the Jefferson Medical College, whose ranks you join to-day, have reason to be proud of the contributions to science made by the dear old College. Its large and constantly enlarging body of Instructors have always been in the forefront in the intellectual

arena of Medicine. It was not less a matter of pride than of delighted surprise to me, not long since, when, apart from all the splendid work of its other Alumni scattered all over the world, *a partial compilation of the books and papers published in two years only by the teachers connected with the Jefferson showed that they had published 267 contributions to knowledge*—almost one paper every two working days. See that you keep up—nay more, that you extend this scientific spirit, so fruitful of blessings to humanity.

We are about entering on a new era in the history of the College. Its educational and charitable work have both been hampered for the past twenty years, to a degree only appreciated by those engaged in the daily work of teaching in the College and in caring for the immense number of patients in the dispensary service of the Hospital. Here again the community is in utter ignorance of the enormous amount of charitable work done in the Hospital. At the end of my recent term of service of only *eight weeks* in the clinic, I reported to the Trustees that in addition to all the work in the surgical wards, in which there were nearly 50 patients requiring daily care, *there had been 5005 visits and operations in these 48 working days, and exactly 200 operations done*, many of them of the most serious character, and without a single death.

This, mark you, is only the record of eight weeks of the entire year and in one department alone. If to these figures you add all the cases in the clinics for Medicine, Obstetrics, Gynæcology, Diseases of the Eye, of the Throat, of the Ear, of the Nervous System, of Children, of Orthopedic Surgery, of the Skin, etc., the sum total is simply enormous. And all this is done in a Hospital built before these numerous clinics were even thought of, and in quarters lamentably deficient in space, air and light.

Besides this charitable and scientific work, you know even better than I can tell you the absolute need for enlargement of the facilities in the various laboratories and lecture rooms, requisite for teaching over 600 earnest young men every year. The simple fact is that we have outgrown, immensely outgrown the facilities which our buildings afford. The four years graded course, now voluntary, must soon be compulsory, and we will be worse off than ever. Hence the bold plan for the new buildings in a new and splendid location. The Trustees and Faculty are cordially united in their efforts for a "New Jefferson," and we appeal to the public of the State and of the City for aid.

Colleges, theological and technical schools, and hospitals have been endowed with millions, but who except Johns Hopkins has ever endowed a medical school? Yet here are educated the doctors who make or mar human lives in these very hospitals and in the entire community. As alumni of this now ancient and honorable school, you can assist in shaping public sentiment in this direction. We appeal to this charitable community to aid us in the great work of training their medical attendants to the very highest point of scientific and practical skill by gifts, which will be repaid to them a hundred fold in their own lives and health and that of those dearest to them.

I welcome you then, finally, into the goodly company of earnest workers and soldiers of knowledge in the campaign against ignorance and disease. Be an honor to the College, true to yourselves and faithful to your fellow-men and to God throughout your lives, and His gracious benediction, "Well done, good and faithful servant," will be your final and blessed reward.—Coll. and Clinical Record.

## Society Proceedings.

### THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

*Slated Meeting, February 3rd, 1893.*

JAMES STEWART, M.D., PRESIDENT, IN THE CHAIR.

#### DISCUSSION.

Dr. GORDON CAMPBELL said that it is claimed that by the hypodermic administration of certain drugs you get an effect not obtained when absorbed by the stomach. Of these drugs strychnia is one of the best examples, and by giving it hypodermically and rapidly increasing the dose it is believed you get the full momentum of the drug, an effect not otherwise obtainable.

Dr. SMITH did not believe in a tendency to alcoholism being inherited.

Dr. GUERIN said that he had had some experience in the treatment of alcoholics, but has never yet used strychnia. If there is any good to be derived it is simply by means of suggestion: we should make patients understand the injury they are doing to themselves. He generally gives them some mild sedative, some hypnotic; and further than that, stops the stimulant, and as a general rule gets very good results. From what he had heard of the paper, no exceptionally good results have been claimed for strychnia, as the majority of the cases relapsed within a few months. He was glad to see this question ventilated, as it is a subject much spoken of lately, and to learn through Dr. McConnell's paper that after all there is not much to be expected from it. The apparent good results are due largely to the moral influence of the introduction of the needle and the impression which the patient receives that a very powerful remedy is being employed in his behalf, and that consequently the results must be very great.

Dr. GEO. T. ROSS did not think that the hypodermic administration of strychnia had any peculiar action in the case of chronic alcoholism. Its use is indicated in all cases of gastritis or other affections where the stomach will not retain anything. Vomiting is a common feature in these alcoholics, and the increased effect of the drug when administered hypodermically may be due not to any special power in the drug itself, but rather that it is better absorbed in that way. He has used hypodermics of strychnia in the vomiting of pregnancy, and in cases of gastritis due to causes other than alcohol, and with, in every case, satisfactory results.

Dr. PROUDFOOT thought that Dr. McConnell's

paper clearly shows that in strychnia we have a drug which will destroy the appetite for alcohol; and even if only for a few weeks it is hence a great boon. There are many cases where men have been incapacitated for days and months at a time by this habit, and if we know that the nitrate of strychnia will remove or destroy the taste for whiskey and break up an attack of this kind, it is a very valuable piece of knowledge, and something that it would be very well for every doctor to become practically acquainted with.

Dr. ANGLIN said that inebriates were not received in the asylum unless they can be proved insane; he thought this a pity, as in his opinion the best treatment of all for the inebriate is to put him in some home where he is removed from the contact or possibility of drink.

Dr. STEWART has had no experience in the treatment of alcoholism by strychnia. Of course if the latter has such a power it might be readily proven; half a dozen medical men could, in the course of their practice, confirm or refute these claims in a week. He questioned very much whether any drug has that power. Two or three years ago there was a great deal of talk made in connection with hypnotism, but so far as he can read on the subject, hypnotism is practically useless in this respect. In fact, until general moral measures are more advanced there is very little to hope for from any kind of treatment.

Dr. REED thought it is bad that the idea should become popular that the craving for liquor was a disease instead of a vice.

Dr. MCCONNELL said in answer to Dr. Guerin's remarks as to getting equally good results by the administration of tonics by the stomach, the quantities administered could only simply exercise a local tonic action on the stomach. Again, we have to distinguish between a sort of mania for alcohol and the effects of alcohol on the system. Most of the vaunted cures we hear of claim to cure alcoholism out and out; now, we can never expect such an effect from any drug. To transform the desires of an individual so completely as to cure him for all time from a distinct neurosis is something that it is hardly reasonable to expect from the administration of a dose of medicine. By using the drug hypodermically you get the action more purely. It is a well known fact that the liver is the great disinfecting organ of the body, and were it not for its destructive powers on the ptomaines we could not live. Just as it does this, all agents administered by the stomach are diminished in their physiological powers, so that by giving them hypodermically we get nearly double the action and very much better results.

From the results of his cases we may conclude that the strychnine simply restores the

original conditions; when the desire relapses a few more doses will cause it to disappear in the course of a few days. Take a man who is practically useless to his family, if you can destroy the appetite for even three weeks, is it not a decided advantage?

In regard to what Dr. Stewart said about hypnotism it is much on the same line as the other remedies. We can find no single remedy to eradicate the alcoholic habit, but every means that helps towards that end should certainly be adopted. Dr. Stewart's paper on epilepsy, read some time ago, simply looked for cure in educating the brain in every way possible; and the same line of treatment must be adopted in alcoholism. The inebriate must be surrounded by a higher moral tone, and every means we know of to elevate the human being adopted before we can expect any permanent results.

The decomposition of alcohol which takes place in the economy is not yet known. It has been generally accepted that from 1 to 2 oz. can be oxidized in the system, giving heat and force to the extent of the oxygen used, but the tissue changes are lessened as evidenced by the diminished excretion of urea, and CO<sub>2</sub>, and to the degree that they have been robbed of O by the systemic digestion of the alcohol; from this fact has sprung the idea that it conserves the energies and lessens waste, and on this assumption it is frequently prescribed as a sustaining remedy; but a view which would appear to be nearer the truth of the matter, is that which denies that alcohol is a food in any sense, but being a ptomaine, a result of decomposition, it is like them generally, a poison in all its actions. That it is not oxidized in the system, but that it combines with the hæmoglobin and destroys its functions of absorbing O, the diminished urea and CO<sub>2</sub>, being in this way accounted for. Other observers have demonstrated that the leucocytes have their vitality lessened by the continued use of alcohol, and in harmony with our recent views on phagocytosis this fact would explain the greater susceptibility of drunkards to the action of pathogenic bacteria, and their lessened resisting power in throwing off disease, although Mortimer Granville maintains an opposite view on this point, and claims for alcohol drinkers a greater immunity than abstainers. That the red corpuscles are profoundly altered was observed in the last case I reported, the only one in which the blood was examined. We have here the evidence of a veritable poikilocytosis in a subject where neither aglobulism nor achromatosis existed. Most of the effects of alcohol are apparently explained by its paralyzing effect on the vaso-motor system from the first contact; we have also the slight stimulating effects on the heart of small doses, and its local and reflex irritant action on the alimentary tract,

which results in increased buccal and gastric secretion, thus favoring digestion. But even this advantage is not upheld by the recent experiments of Blumenau, who found that the total action was impairment of digestion, and when we take the fact that even the stimulating effects are quickly changed into paralytic conditions, and when often repeated leading to exhaustion of every function and more or less general degenerative changes throughout the body we can readily understand how we are to get beneficial effects from drugs having the action of strychnine.

The chief action of alcohol, then, is to paralyze the vaso-motor system, dilating the arterioles. Strychnine, besides exalting the excitability of the spinal cord and probably the motor centres in the brain, stimulates the vaso-motor centres, contracting the arterioles, as well as being one of the most efficient heart tonics, through its stimulating effects on the cardiac ganglia.

While we have in strychnine a true antagonist to the action of alcohol, and one that will counteract its effects, the inebriate still requires aid which can scarcely be expected of drugs. He needs the mental and will power to overcome his acquired tendency to resort to narcotics. This must come from treatment which seeks first to restore all the abnormal conditions of the patient, whether due to alcohol or otherwise. Then strict abstinence, in which he must be aided by moral suasion, the diversion of continual employment, and the education of the mental and moral faculties to a higher status; even the influence of hypnotic suggestion may be applied in suitable cases, as has been done recently with a fair measure of success. And when these means fail, then institutions where voluntary or forced detention can be secured and where all the present known means can be most successfully applied, must be the only hope of restoring these unfortunate subjects of narcomania.

*Stated Meeting, February 17th, 1893.*

JAMES STEWART, M.D., PRESIDENT, IN THE  
CHAIR.

*Retro-peritoneal Myxo-lipoma.*—Dr. ADAMI gave a history of and described, a retro-peritoneal tumor of great size which he had received from Dr. Hannay, of Perth. A photograph and portion of the tumor weighing several pounds was exhibited to the Society.

*Intra-mural Myoma of the Uterus.*—Dr. ADAMI exhibited a large specimen of this condition which he had received from Dr. Alloway, which, with the attached portion of the uterus, weighed close upon two kilos. The specimen had been cut through from side to side longitudinally by Dr. Adami, and showed well the relationship of the various parts. The globu-

lar mass of new tissue originated evidently at the uppermost part of the uterine wall, and growing down into the cavity of the organ had completely filled it; but its intra-mural origin could be clearly seen, inasmuch as at the edge where the projecting part of the mass joined the uterus, the inner layers of the uterine muscle were reflected over the growth. The tumor was a typical uterine myoma. The specimen was exhibited to the Society on account of its relatively large size and of the very considerable hypertrophy that the uterine wall had undergone *pari passu* with this growth into the cavity. The presence of this large globular mass arising from the fundus of the uterus and the hypertrophy of the walls gained further interest from the fact that this condition had led more than one medical man attending the patient to make the wrongful diagnosis of eighth month pregnancy.

Dr. T. JOHNSON ALLOWAY detailed the history of the preceding case. The patient was 42 years of age and had borne four children, the last four years ago; had had several opinions as to the nature of the growth, and on two occasions had been told that she was pregnant. This was not surprising, the tumor being one of those rapidly growing myomata with a loud bruit, synchronous with the heart's action, heard over most of its surface, a form very difficult to differentiate from pregnancy. She was first seen on the 24th of January, and the operation was performed on the 31st of that month, during which time she remained in his private hospital and the usual preparatory measures were adopted.

The method of removal was by total extirpation, through an abdominal incision, of the ovaries, tubes and whole uterine body, including the cervix, as described by Eastman.

Any lacerations or tears of the peritoneum were closed by continuous sutures; this procedure takes but a few minutes, and by it the cavity is totally closed.

This patient had for her highest temperature 99.6°; the pulse never exceeded 104. She made, in fact, a recovery that was surprising to him and to his colleague, Dr. Gardner, knowing the great gravity of the operative procedure. It is now two weeks since the operation, and she will probably go home in one week more.

In this method of removing so large a myomatous body there is the great gratification of knowing that the convalescence is so short, so smooth, and that there is absolutely no necrotic tissue left to give rise to septic changes. In the extra-peritoneal method, on the other hand, there is necrotic tissue and a great danger of sepsis, so that the patient is not really out of your hands until all this necrotic tissue separates, which does not take place for 12 or 14 days after the operation. By this method, after the fourth or fifth day you may declare her abso-

lutely free from any untoward results. Now, with reference to the other methods, besides the extra-peritoneal one, that have been adopted in such cases, such as where the pedicle is dropped after suturing the cervix with buried sutures, and a modification of Schroeder's old method, lately devised in Baltimore, whereby sutures buried and passing through the centre of the cervix were ligated on either side and the peritoneum turned in and sutured, these have all the two great dangers attending them of hemorrhage and necrotic changes taking place. In Eastman's method there is no danger whatever of this nature, there is no uterine tissue left to unite, only vaginal tissue, and that is covered by peritoneum. There is no doubt that this last method is a great improvement on all previous ones, the one drawback it has is the great difficulty of its performance. It is certainly the most formidable operation in surgery, and requires not only the greatest skill but also the greatest endurance.

*Dermoid Cysts of Both Ovaries.*—Dr. ADAMI exhibited two ovaries received from Dr. Alloway, both of which contained dermoid cysts. The right ovary was represented by a large, relatively thick walled cyst,  $4\frac{1}{2}$  inches in diameter. This upon first opening was found to be filled with a brownish blood-stained fluid, and in this could be distinguished old blood clot, a large amount of fatty debris, cholesterin crystals and hairs. On removing these and washing out the cavity, two fully formed teeth were found projecting into it from a patch somewhat raised above the level of the rest of the wall, and upon this patch were numerous hairs growing from the epithelial coat. The fat was due in part to degeneration of the cells and cell-debris thrown off the surface of the cyst, but probably, as has been found in other dermoid cysts, it has been given off from sebaceous glands associated with hair follicles and epithelium.

This tumor presented, therefore, the most common and characteristic features of an ovarian dermoid. That it was ovarian was manifested by the presence of portions of the fallopian tube still attached and of a small cystic graafian follicle imbedded in its walls. The interest of the case centres in the more unusual feature of the other ovary being similarly affected, though with multiple dermoids of smaller size. This, the left ovary, contained several small cysts, and one of these had its walls fairly well developed, there being a well marked cutis with small hairs growing therefrom. Two other rather larger cysts, the more important being  $\frac{3}{4}$  inch in diameter, contained hair and fat, others again still smaller had merely fluid contents. In this specimen a fair amount of tissue still remained.

Dr. ADAMI called attention to the interesting series of cysts presented by these two ovaries, from minute cavities which apparently repre-

sented dilated graafian follicles, up to the large typical dermoid cyst of the right ovary. Cases like this, tending to throw light upon the dispute as to the origin and production of ovarian dermoids, are of high value.

Dr. ALLOWAY called attention to the interest attaching to this case—the presence of two dermoids in the same patient. The condition is relatively rare, Dolan in his account of 31 cases finding only 7 in which the condition affected both ovaries, that is to say, but a little over 20 per cent.

The history of the case was as follows: The patient, a resident in the United States, underwent examination in Philadelphia, and again in New York two years ago, and there already the diagnosis was given of pelvic tumor. Accompanying her husband, who had come to Montreal on business, she here began to suffer severely. She consulted Dr. Thompson, who referred her to Dr. Alloway.

It was difficult to make out her condition without putting the patient under ether, but when this had been done the uterus was found to be anteverted, there was a tumor in the right pelvis, low down and impinging upon Douglas' pouch. This filled the whole upper third of the vaginal space and encroached somewhat upon the left, but did not involve the left pelvis. The diagnosis was given of a pelvic tumor, probably containing fluid. The tumor was fixed but separate from the uterus and certainly not connected with that organ. The question was as to whether it was a dermoid or a cyst of the broad ligament. From the fact that the tumor had been diagnosed two years ago, and that only when these tumors become large and irritation and inflammation set in is any pain experienced and a physician summoned, makes it probable that the tumor in this case had been in existence for a long period growing slowly; and this led to a conclusion in favor of its dermoid nature.

At the operation, numerous adhesions were encountered. The tumor was adherent to the posterior face of the broad ligament and to the wall of the pelvis on that side. It was also adherent to the wall of the rectum for a considerable distance. In such cases there is great danger of entering the rectum. To guard against this complication Dr. Thompson, who assisted at the operation, was asked to pass his fingers up the rectum and keep them there as a guide while the adhesions were separated. The operation had been performed four days previously and the patient had remained perfectly well, the temperature never exceeding  $99.5^{\circ}$ .

Dr. ALLOWAY, continuing, said he had now given up ligatures in these cases. He finds Keeler, of New York, the most reliable source to procure catgut from; the size No. 0 ligature (simply the base fiddle string) is that used. It is, in his opinion, the best ligature extant to-



day, where there is a large amount of tissue to be brought together. He made an experiment some time ago with reference to the difference between catgut and silk. It was with reference to the reputed property catgut has of shrinking when moistened, whereas it is well known silk remains absolutely the same. He took a piece of sea-tangle tent, saturated it for some time in water, so that it was fairly expanded, then tied upon it above a silk ligature, and below one of catgut (No. 0). They were both tied equally tight. The tent was placed in a jar of sublimate solution. About one week afterwards he took it out and found that the catgut had cut a ridge into the tent, the silk remained perfectly the same. That was an absolute proof that the catgut does shrink. It is this power of shrinking under moisture that makes it superior to silk in operations of this kind. Tissue shrinks after operations, and in the case of silk this shrinking implies a loosening of the ligature, which is most commonly the cause of hemorrhage. Now, in the case of catgut, this loosening does not occur, the ligature contracts with the tissue, and hemorrhage is a much more rare occurrence where the latter is used.

*Fibrinous Cystitis.*—Dr. ADAMI exhibited specimens and microscopic preparations from a case of this condition, for which he was indebted to Dr. (Miss) Dougall. The casts had been passed upon three or four separate occasions of late, there was severe uterine disturbance, a history showing that the material had been passed coincidentally with a menstrual period, and while these thin, white, fairly firm fibrinous membranes were evidently casts from some cavity, the question had arisen as to whether that cavity had been the uterus or the bladder. The history of uterine disturbance first attracted attention to the uterus, but, in the first place, this had been filled by a new growth, and, in the second place, examination of the fibrinous material, both in fine sections and by teasing, failed to reveal any uterine cells or orifices of uterine glands. On the other hand, flattened cells resembling bladder epithelium were present. There had been cystitis for the previous fortnight with the passage of a relatively large amount of pus, and with the passage of the casts the condition of the urine improved, the number of pus cells diminished. The membranes and membranous shreds were passed after great pain and difficulty. The passage greatly eased the patient.

The condition in this case is rather at variance with the rare cases that have been described as exfoliative cystitis. Thirty or more such cases have been narrated, mostly in women, and in connection with labor or serious uterine troubles. In these, after great pelvic disturbance, the history given is that of the passage of a more or less complete cast of the interior of the bladder, and upon microscopical examination

the cast is found to be composed of a large amount of fibrine, and incorporated in this what are evidently the inner layers of the bladder wall; in many of the cases, not only epithelial layers, but a certain amount of the muscle tissue of the bladder wall, has thus become exfoliated.

In the case in question a singularly small amount of anything like the element of the mucous membrane of the bladder could be seen embedded in the fibrine, though there were numerous pus cells. The case is consequently described as one of "Fibrinous cystitis" rather than "exfoliative." True exfoliative cystitis would seem in all cases to be due to a stoppage of the circulation in the vesical walls in consequence of more or less long-continued closure of the vessels by pressure. It is in fact a necrosis of the inner layers of the bladder wall. In this case the condition has been neither so extreme nor has it been of relatively sudden onset. That there has been obstruction of the pelvic veins is shown by the existence of phlegmasia alba of both lower extremities, and to the pressure of the large uterine tumor can be referred the state of the bladder which has rendered the setting up of cystitis a relatively easy matter. That same obstruction of the iliac veins which caused the phlegmasia would affect also the veins of the base of the bladder which pass to the internal iliacs, and Dr. Adami suggested that a very possible explanation of this curious condition was to be found in this obstruction, which leading to a congested condition of the vesical mucous membrane, would lead to exudation, and this, when already there was inflammatory disturbance in the organ, would tend to be of a fibrinous coagulable nature. But it would seem reasonable both in phlegmasia alba and in this condition of fibrinous cystitis to take into account also obstruction to the lymph flow of the parts.

Dr. WM. GARDNER, who had seen the patient with Dr. Dougall, gave details of the history of the case, which served to explain the occurrence of the cystitis. The woman from whom the specimen had been taken was suffering from a large myoma, a great part of which was already extruding. The pelvis was nearly filled by this myoma, and in the abdomen could be felt a large smooth mass. The condition of complete filling of the pelvis might account for the bladder troubles on the lines laid down by Dr. Adami. The woman had, in a sense, been in labor for several weeks, her womb trying to extrude the mass; the bladder naturally has been encroached upon and variously disturbed.

*Bradycardia.*—Dr. H. A. LAFLEUR reported a case of slow pulse, better called slow heart or bradycardia. The history of the case is as follows: A young man had an attack of acute rheumatism, from which he made an apparently good recovery. Present condition seems fair, there being nothing which might disturb the circula-

tory equilibrium save some periodical attacks of diarrhoea. These attacks cannot be traced to errors in diet or any local causes in the intestinal canal. The patient is a student, tall and spare, chest long and narrow, bulging of the costal cartilages of the left side from the roth to the 6th rib. Apex beat punctuate, in the sixth interspace in the nipple line. Short purring thrill felt on palpation, also slight diastolic shock. Cardiac dullness extends from the third rib downwards, latterally from the middle of the mediastinum to the nipple line. Auscultation reveals an occasional irregularity, but very seldom. First sound loud and snapping in quality, no trace of murmur; second sound accentuated and reduplicated, heard most loudly at the pulmonary cartilage, and transmitted quite distinctly beyond the area of cardiac dullness. No enlargement of the spleen, no enlargement of the liver, no oedema.

The first count of the pulse was 49, the second count gave from 50 to 54. The character of the pulse is that it is of small volume, but usually quite regular. Respirations were 16 to the minute; temperature not taken at the time; but subsequently it was found to be subnormal throughout most of the day. During a period of ten days, during which his temperature was taken three times daily, it only reached the normal point on three occasions. A tracing of a normal pulse with a fairly high tidal wave and a fairly high secondary wave was shown to compare with the tracing of the patient's pulse when it was beating at 54. It shows very typically that this tidal wave is short (that the artery is not very actively filled, a common condition in obstructive disease of the mitral orifice), it shows besides a very long diastolic period during which the ventricle is filling, and that is succeeded by the next systole. A tracing taken after exertion was also exhibited, the pulse here is more rapid, nearly 80; it has the same characters as the previous tracing, with the exception that the second wave is very well marked,—in fact, it approaches the condition of dicrotism. When the heart is beating rapidly it cannot be so well filled, on account of the obstruction at the mitral orifice.

This condition of bradycardia (slow heart) has been known for a long time; but until quite recently no attempt has been made to collect and tabulate a number of cases. At the meeting of the American Association of the Medical Sciences at Washington recently, Prentiss collected over 100 cases in which the pulse beat below 60. The symptom of bradycardia may arise under any varied conditions of disease indeed; and, although attempts have been lately made to classify them, notably in the large series of cases collected by Riegel, so far they have arrived at no very satisfactory results. The principal conditions under which one meets with it are (I) injuries to the central

nervous system, in injuries of the head slow pulse is often a very conspicuous phenomena; (II) conditions associated with organic heart disease, fibroid disease, fatty degeneration, and much more rarely valvular disease; (III) toxic cases, poisoning by lead and arsenic, eating bad fish, etc.; (IV) anæmia and the cachectic conditions generally; (V) catarrhal jaundice; whether this is one of the toxic cases or not is not clear. The tendency is to group them under two heads: (a) where there is organic heart disease; (b) where the nervous mechanism is at fault.

## Progress of Science.

### THE ARTERIO SCLEROTIC CONTRACTED KIDNEY.

Leven (*Deut. Med. Woch.*, May 29th, 1892) says that Zeigler first suggested this name, and that he was also among the first to define this disease sharply from other forms of chronic nephritis. The relation of the vascular disease to the renal affection is a fairly constant one. It is not necessary that it should extend to the whole vascular system; indeed, it is mostly limited, and the heart has been pointed out as the organ in which the vascular lesion is almost constantly present. Even more characteristic and hardly ever absent is the marked affection of the arteries of the pia mater. In the author's experience, the spleen has always been involved. The small arteries show marked sclerotic changes. The splenic reticulum is considerably thickened, and the cells exhibit commencing degeneration. It is the picture of a fibrous induration, the cause of which is to be found in the vascular disease. The cardiac hypertrophy, almost limited to the left side of the heart (while the muscle itself shows early degeneration) is no real objection to this view, for the hyperplasia of the left ventricle is due to the increased vascular resistance, and takes place when the heart is as yet well supplied with blood. The author says that the changes in the kidney itself are the typical manifestations of a degeneration brought about by deficient blood-supply. The changes in the arteries in the kidney affect chiefly the intima and the middle coat only slightly. The adventitia is also much thickened. Leven states that the urine has been in all his cases diminished in quantity (without corresponding dropsy). Eye changes are uncommon. The author says that this form of renal disease exists mostly in the case of men without previous evidence of acute nephritis, who present in the course of time slight albuminuria, passing oedema, a diminished quantity of bright urine, hypertrophy of the heart, and slight uræmic symptoms.—*Brit. Med. Journal.*

## PEROXIDE OF HYDROGEN IN DIPHTHERIA.

By J. A. DEARMAND, M.D.

Again is the truth of the adage, that the human family acts very like a flock of sheep when alarmed, demonstrated. The proneness of medical men to fly off the handle and follow false gods has become a by-word and a sneer with the educated laity. Every new drug or combination of drugs which is ushered into commercial existence finds a drove of medical men, who are convinced on very slight acquaintance that a cure-all has at last been found, and they proceed to spread its praises with the lavish hand which enthusiasm always displays. This tendency to praise before fully investigating is to be deplored, for several reasons. In the first place, it puts a value on an article which is only valuable to the company who hold the right to make it. In the second place, when the first burst of enthusiasm has given place to the quiet investigation by the bedside and the new applicant for popular favor is found utterly useless, we lose faith in the judgment of the men who aided in booming it. We are certain to get the idea that these men have had some motive other than the good of their worshippers when they have lent their voice and pen to boom an article which we find under the most promising circumstances is worthless. If medical men would only investigate and then give the results of those trials, there would not be the ground for so much back-tracking. And there can be no denial that this booming of a remedy to-day and damning it to-morrow is very bad for the reputation of the profession. When the medical leaders, or the recognized leaders of any special branch of the healing art, find a remedy which the superior opportunities for observation enable them to test, and they find it right and safe to advise their pupils the world over to use, then, when these men suddenly turn about and denounce the very thing they lately were so enthusiastic over, we, the profession at large, come to view new preparations with suspicion. We are justified in letting them severely alone until the test of time has settled the value the article possesses, and then often we can find such a variety of opinion that the novice can't tell whether or not to adopt the new remedy. Every doctor in the land finds his mail filled with circulars announcing the agency or sale depot for some new remedy. Everyone has the certificate of some doctor of more than local renown. The progressive physician wishes to keep step with the profession, and he orders the new candidate, and he finds it is expensive, but he also finds that a month's time will bring another candidate which is boomed in the same way. So it has come to be a fact that the profession can not rely on the evidence of the leaders at the medical centres when it comes to sorting

the useless and expensive preparations from the really meritorious ones. The fiend who gives samples and book marks and other little toys seems to rule the roost, and until the next man gets his toys out there is no sure thing for anybody except the maker.

Another matter that has done much to make trouble in medical ranks is the semi-proprietary medicine maker. He appears with the very plausible story that he puts the formula on the wrapper, and all that he claims is the purity of drugs used and the excellence of fabrication. This gets the doctor. He thinks this new combination is just what we want. It gives the drugs we want to give, but are in doubt about combining, in a fine form, and we will adopt the remedy. Furthermore, in return for the book marks and paper knives, we will say that the combination is one that theoretically should do wonders, and as we have used it, it will do wonders, and soon the patient finds out that there is not much use in paying a doctor one dollar for a prescription which calls for Buncomb's bromides or Ruleum's uterine straighten-out. In this way the article which, mind you, is only prepared for the profession finds the sale the wily maker wants, and the old proprietary dodge is worked over again, and the gold brick man gets away with the boodle.

These things are matters of knowledge to the profession, and yet we are forced to try every new remedy with the fear that we have been gold-bricked. Go to your druggist and ask him how many substitutes he has for iodoform. They are legion almost, and each one is pronounced the very best by surgeons of national reputation. You try them, and many are utterly useless. So it is of so many things, that we almost wish there was some plan by which the desired knowledge of remedies could be had without paying so dearly for the knowledge.

At a recent meeting of the American Pediatric Society, the eminent Prof. Jacobi read a paper in which he sat down on a remedy which has held a place as a most useful and valuable aid to our armamentarium. The doctor said in general that he had dropped the peroxide of hydrogen as a more or less useless agent and a dangerous one as well. In the discussion of the paper which followed there seemed to be a community of sentiment, each speaker giving the remedy, which has been hailed as a wonderful article, a biff in a weak spot. This is very unfortunate, it is the knocking of another idol down. If we only could have fewer idols our sensitive natures would not be so severely shocked by the rude breaking of them so frequently. Indeed, the poet might be paraphrased to

I never loved a pill or powder,  
To gladden me with its fine effect,  
But some big man came from under,  
And gave it one in the neck.

—The Times and Register

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**MONTREAL, JULY, 1893.**

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**THE FRENCH MEDICAL SCHOOLS  
OF CANADA.**

Within a year or two ago there were no less than three distinct and separate medical schools in the Province of Quebec, one being at the city of Quebec and two at Montreal. That at Quebec was known as the Medical Faculty of Laval University, which furnished a large sum annually for its maintenance. Of the two medical schools at Montreal, one was known as the Montreal School of Medicine and Surgery, or more generally as Victoria, owing to its being in affiliation with Victoria University at Cobourg. The other was called the Laval branch, being affiliated with Laval University, Quebec, but receiving no financial support from it. For some years somewhat bitter rivalry existed between these schools, but at last an amicable arrangement was arrived at by which they were amalgamated, thus forming one great school with a large attendance of students. For it not only educates the medical men required for the wants of the province of Quebec, but it also provides nearly all the physicians required by the millions of French Canadians now residing in the New England and Western States. We have it on good authority that in the near future the Quebec faculty will join its forces with the Montreal one, thus concentrating all its resources on the one great French University at Montreal. It will then be in quite as good a position as McGill to afford a medical education second to

none in the world. It may not be generally known that Laval University was for nearly twenty years the only medical school in America which gave a course of four years consisting of ten months each.

The greatest difficulty she had to contend with was the reluctance of students to spend so much time in obtaining a degree when they could obtain it in a much shorter time elsewhere. Now, however, with only one French University, all students speaking only that language must make up their minds to submit to the longer and more thorough course of instruction. Another advantage resulting from the amalgamation of the two French schools is that the two large Hospitals, the Hotel Dieu and Notre Dame, are available for all the students, thus affording an immense amount of clinical experience. We predict for this great and influential school greater prosperity than it has ever yet enjoyed.

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**VITAL STATISTICS IN THE PROVINCE  
OF QUEBEC.**

In conformity with a law passed during the last session of the Legislature, the Provincial Board of Health will begin, with the 1st of July next, the collection of vital statistics in the 346 municipalities of the Province.

The important point in this law of statistics is to require that before, any burial is allowed, a certificate signed by the physician who attended the deceased, and establishing the cause of death, be furnished to the person entrusted with the registers of civil status (the clergyman). When no physician has been called, two credible persons or the clergyman give a certificate establishing to the best of their knowledge the cause of death.

These certificates, which will be forwarded monthly to the Provincial Board of Health, will be a source of precious information for the Board. They will show what localities of the Province have the highest death-rate, which diseases have caused a heavy mortality in certain places and not in others, which are the diseases prevailing in certain districts, which seasons are most fatal, what ages and sexes suffer more, and what are the professions mostly affected, etc., etc.

These statistical data the Provincial Board will study with the result that often it may be able to indicate to municipalities the remedy which would reduce their death-rate, which in some cases is enormous. (15 municipalities had death-rates of over 50 per 1000 inhabitants during the year 1890).

But it is especially respecting contagious diseases that these certificates will be important to the Board. At the end of each month, the Board knowing the exact number of deaths caused by each contagious disease in every locality of the Province, will be enabled to inquire immediately into the measures taken to check such diseases, and by ordering a rigid enforcement of isolation and disinfection will often prevent an epidemic.

The Board relies upon the medical profession to furnish it with accurate and reliable data, and entertains no doubt as to its support, since the want of legislation on the subject, which existed up to last session, has often drawn the attention of the medical corps.

#### THE TREATMENT OF ACUTE CATARRHAL INFLAMMATION OF THE MIDDLE EAR.

By JAMES T. CAMPBELL, M.D. TOR., M.R.C.S. ENG.

Demonstrator of Anatomy in the Chicago Medical College; Physician to the South Side Dispensary, in the Nose, Throat and Chest Department, Chicago, Ill.

In a recent article it is reported that of 10,000 deaf-mutes in institutions in the United States and Canada, fifty per cent. of these are afflicted through having suffered from acute inflammation of the middle ear in infancy, scarlet fever of itself being credited with about 30 per cent. of these cases, while an untold multitude go through life with hearing to a greater or less extent impaired from damage done to the membrana tympani and ossicles. From this showing it appears to me that there must be something radically wrong in the treatment generally adopted.

As to prophylactic measures, the nasal douche should never be employed, because of the great danger of forcing fluids up through a patent Eustachian tube and its gaining admission to the tympanic cavity.

In all cases of inflammation of the tonsils or inflammation in the naso-pharynx, local antiseptic treatment should be adopted. Where there is interference with the free opening and drainage of the Eustachian tube during the act

of swallowing, as a result of hypertrophy of the adenoid tissue in the naso-pharynx, or a poly-poid degeneration of the posterior portion of one of the turbinated bodies, one should at once remove the obstructing mass.

When, however, inflammation of the middle ear has developed, local treatment must be employed. Instil into the external ear five to ten drops of a warmed 5 per cent. solution cocaine with a 2 per cent. solution of resorcin, tilting the head in such a position that the drops will become applied to the whole surface of the membrana tympani. Leave these drops in for ten to fifteen minutes, and then remove with a pledget of cotton-wool. Repeat this every three to four hours so long as pain in the ear continues.

Place a large gauze compress, which has been wrung out of a hot boracic acid solution, over the ear, and cover the whole with oiled silk, so as to retain the heat and moisture, changing this sufficiently often to keep the gauze constantly hot.

Inflate the middle ear with Politzer's rubber bag, using air which has been filtered by placing a small pad of antiseptic cotton-wool over the tip of the bulb during inspiration, force out the air, and repeat this process once or twice before using. Now place the patient's head in such a position that the Eustachian tube of the affected side is directed downward and forward during inflation; in this way not infrequently the exudation into the middle ear, particularly when it is serious in character, trickles down the patent tube. Repeat this inflation several times during the course of the day.

Should the physician not possess a Politzer bag, he may in an imperfect way try to accomplish the same result by taking a piece of rubber tubing, put one end within the child's nostril, and hold it in place by pinching the tip of the nostril between the index finger and the thumb, and then blowing very forcibly through the other end when the child swallows. With a child old enough to do as directed, the proper time to compress the air bulb in inflating the ear is just as the soft palate is raised during the act of swallowing a sip of water, or when having him say the word "huck." In an adult the most thorough plan is by using the Eustachian catheter in conjunction with the air bulb.

General derivative measures should be adopted by the use of saline cathartics, diuretics, diaphoretics and cardiac sedatives, while, in addition, it is well to place, in the case of a child, one, and in adults three, leeches in front of the tragus for fifteen minutes, to produce rapid depletion, being careful, however, to have a pledget of cotton-wool in the external meatus to prevent the entrance of leeches into the external ear.

These measures proving unavailing, as evidenced by pain increasing in severity, the membrana tympani being much reddened and swol-

len, with bulging and a yellowish coloration of the posterior segment, one must perform myringotomy.

The incision is made in the postero-inferior segment, from near the tip of malleus downwards. Then take Politzer's rubber bag, and, by way of the Eustachian tube, force the exudate in the middle ear out through the opening in the membrana tympani. Carefully syringe out the external ear with a saturated boracic acid solution, and, after drying out the ear, blow in some very finely powdered boracic acid, and place in the external meatus a plug of antiseptic cotton-wool. Continue the inflation twice daily, and see that the incision in the membrana tympani keeps open so long as any exudate continues to collect in the middle ear and can be forced out with the rubber bulb.

By carefully carrying out the above described measures we shall have a much smaller percentage of deaf-mutes in our midst, and have fewer suffers from perforated membranæ tympani and chronic suppuration of the middle ear, with all its attendant evils.—*Annals of Ophthalm. and Otolology.*

## BOOK NOTICES.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A.M., M.D., Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Second Edition. Revised. In Two Royal Octavo Volumes. Volume I, 353 pages: Devoted to Pharmacy, General Pharmacology, and Therapeutics and Remedial Agents not Properly Classed with Drugs. Volume II, 680 pages: An Independent Volume upon Drugs. Volume I, in Cloth, \$2.50 net; Sheep, \$3.25 net. Volume II, in Cloth, \$3.50 net; Sheep \$4.50, net. Philadelphia: The F. A. Davis Company, publishers, 1914 and 1916 Cherry Street.

If works on Materia Medica and Therapeutics generally have a fault, it is that they pay so much attention to the drug treatment of disease that diet and other hygienic measures are completely ignored. This, however, cannot be said of the volume before us, for in preparing a second edition of the work, the author has earnestly desired to emphasize his profound conviction of the value of the natural forces and of mechan-

ical and physiological agencies in the treatment of disease. The great aim of practical medicine is the cure or relief of disease. In the effort to accomplish this object, the physician should strive to make use of every means by which the system of the patient may be benefited in its struggle with the malady. Enlightened therapeutics must be preceded by a correct diagnosis, and diagnosis, in its turn, should lead us to a diligent study of etiology. It is only after the nature of an ailment has been recognized and its origin ascertained that we can be in a position to intelligently apply methods of relief. Pathology is but modified physiology, and if we are able, at an early period, to remove or neutralize the action of a malific cause, we aid Nature in the re-establishment of normal function. The origin of specific infection comes from without, the genesis of toxic processes is to be sought within the organism. In each of these two great morbid types, the tissues and organs are injuriously affected by the presence of abnormal chemical products. The grand object of modern therapeutics is, therefore, to prevent, as far as possible, the formation of these deleterious substances; or, when this effort has failed, to promote their speedy and thorough elimination. We have learned to appreciate more justly the resistant as well as the reparative power of the economy. The germicidal properties of the blood-serum and the white cells and the increased activity of the eliminating organs protect us from the dangers by which we are every day and every hour surrounded. Exact experimentation has recently shown us the comparative facility with which hungering and thirsting animals succumb to infection. In these facts, thus briefly stated, we have the foundation of the rules which should govern the medical profession. Preventive medicine and sanitary science should be the first objects of study. In the emergency of dangerous epidemics, the profession has the active assistance of the public. The laity can perceive the advantage of free ventilation and efficient drainage, but the regulation of personal habits, in accordance with the laws of hygiene, is, for most, a task too difficult to accomplish. This fertile cause of disease is always in operation. The practitioner, therefore, is constantly confronted with preventable but firmly-established disease. The correction of unhealthy physical habits must be the first step in the course of successful treatment. The physician should be competent to regulate his patients' mode of life as regards exercise, work, diet, amusement and sleep. The physiology of digestion must be thoroughly studied; the chemical composition, the nutritive value, and the methods of preparation of foods should be understood. Much good is accomplished simply by the relief of the organs of digestion, assimilation and excretion. The spirits and tone of mind and the circulation and processes of

oxygenation improve in proportion to the benefit to digestion. Sleep becomes more sound and refreshing. Drugs can accomplish but a similar result, and will altogether fail unless their efficiency is promoted by the observance of physiological rules. Exhausted energy is re-established by the proper application of electrical force and the manipulations of massage. External heat compensates, in a measure, for weakness of the heat-forming apparatus, and is of advantage in conditions characterized by debility. It affords relief, also, in certain phases or periods of inflammatory disorders. The influence of cold, light, and music may, with great propriety and benefit, be utilized by the physician.

It is not essential that the physician should be a skilled pharmacist, but he should possess an intelligent conception of the methods of pharmacy and a familiar acquaintance with the physical and chemical properties of drugs. These subjects and the art of prescription-writing are, consequently, discussed, in the preliminary section of the book, from the standpoint of the general practitioner. The different modes of application or introduction of remedies, the Latin terms and phrases employed in prescriptions, the metric system, poisons and antidotes are also considered in this section.

In the chapter on "Electro-Therapeutics," one object has been held steadily in view—lucidity. The physical properties of this force, its modes of generation, the laws which regulate its manifestation and the mechanical means by which it is applied, are described as briefly as is consistent with utility. The importance of electricity in the diagnosis of nervous affections and its value and indications in therapeutics are fully discussed. The physiological effects and the therapeutic applications of massage, so often synergistic with electricity, form the subject of a succeeding section. The paragraph upon the method of prescribing massage will, it is believed, be useful in securing the fullest benefit of this valuable procedure. The importance of pneumotherapy is pointed out, and the usefulness and the mode of administration of oxygen is described. The chapters on "Hydrotherapy," "Climate," "Diet," "Heat," "Cold" and other physiological agencies, have all been rewritten.

The author hopes that his care and labor have succeeded in bringing within moderate compass, information valuable alike to the physician and patient. He trusts, likewise, that this volume may be of service in demonstrating how much can be accomplished in the practice of medicine without the use of drugs, and how much the activity of drugs is enhanced by the judicious combination with physiological remedies.

This volume, especially, is so charmingly written that we would advise our readers to procure a copy.

VOL. I.—TREATISE ON THE THEORY AND PRACTICE OF MEDICINE, by American teachers, edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. *For sale by Subscription only. Price per Volume, Cloth, \$5; Sheep, \$6; Half Russia, \$7.* W. B. Saunders, Publisher, 913 Walnut Street, Philadelphia, Pa.

This work, on the Theory and Practice of Medicine, has been issued in two handsome royal octavo volumes, of about 1000 pages each, containing numerous woodcuts and colored plate illustrations to elucidate the text whenever necessary. It is composed of a series of articles (each bearing the author's name) upon each disease or set of diseases by various authorities, selected with care from the faculties of the various medical schools of the country, with a view to obtain the very best and latest opinions and treatment of specialists in each department of medicine, and will, therefore, thoroughly represent the subjects taught in American colleges.

The articles are not written as though addressed to students in lectures, but are exhaustive descriptions of diseases with the newest facts as regards Causation, Symptomatology, Diagnosis, Prognosis and Treatment, and will include a large number of approved Formulæ. The recent advances made in the study of the bacterial origin of various diseases are fully described, as well as the bearing of the knowledge so gained upon prevention and cure. The subjects of Bacteriology as a whole and of immunity are fully considered in a separate section.

Methods of diagnosis are given the most minute and careful attention, thus enabling the reader to learn the very latest methods of investigation without consulting works specially devoted to the subject.

In the matter of treatment there is much that is entirely new; for instance, the subject of cure by injection of blood-serum from immunized animals, now attracting much attention, is thoroughly discussed under the different diseases.

Hygiene forms the opening chapter of volume one, and under each disease methods of prevention are carefully discussed.

Very considerable space is devoted to the important subjects of Insanity and Urinalysis.

The following is the list of authors.

Hygiene, J. S. Billings, M.D.; Kidneys and Lungs, Francis Delafield, M.D.; Peritoneum, Liver and Pancreas, R. H. Fitz, M.D.; Urine (Chemistry and Microscopy), James W. Holland, M.D.; Heart, Aorta, Arteries and Veins, E. G. Janeway, M.D.; Diathetic Diseases (Rheumatism, Rheumatoid Arthritis, Gout, Lithæmia, and Diabetes). Henry M. Lyman,

M.D. ; Blood and Spleen, William Osler, M.D. ; Fevers (Ephemeral, Simple Continue, Typhus, Typhoid, Epidemic Cerebro-Spinal Meningitis, and Relapsing), Pharynx, Oesophagus, Stomach and Intestines (Including Intestinal Parasites), William Pepper, M.D. ; Tuberculosis, Scrofula, Syphilis, Diphtheria, Erysipelas Malaria, Cholera, and Yellow Fever. W. Gilman Thompson, M.D. ; Inflammation, Embolism, Thrombosis, Fever and Bacteriology, W. H. Welch, M.D. ; Scarletina, Measles, Rotheln, Variola, Varioloid, Vaccinia, Varicella, Mumps, Whooping-Cough, Anthrax, Hydrophobia, Trichinosis, Actinomycosis, Glanders and Tetanus, James T. Whittaker, M.D. ; Air-Passages (Larynx and Bronchi) and Pleura, James C. Wilson, M.D. ; Nervous, Muscular, and Mental Diseases (Including Opium Habit, etc), Horatio C. Wood, M. D., William Osler, M.D.

From the above list of names of contributors to this work we need hardly say that it must represent truly the best teaching on the science and art of medicine at the present time in this country. The article on Hygiene at the beginning and the chapters on Bacteriology and Intestinal Parasites are remarkably well written. While fifty-eight figures and diagrams, and three colored lithographic plates amply illustrate the text. The publishers have exhibited great enterprise in undertaking preparation of such an elegant and complete text-book. The fact that it is edited by Professor Pepper, is a guarantee that the second volume will be fully up to the high standard of the first.

**ELEMENTARY PHYSIOLOGY FOR STUDENTS.** By Alfred T. Scholfield, M.D., M.R.C.S., late House Physician to the London Hospital ; Special Lecturer National Health Society. In one handsome 12mo. volume of 385 pages, with 227 engravings and 2 colored plates. Cloth \$2. Philadelphia, Lea Brothers & Co.

The author has presented a compact text-book of Physiology for medical students, selecting, as far as possible, the definitely ascertained facts of the science and avoiding theory except where it is necessary to connect thereby isolated items of positive and essential knowledge. By the aid of a concise style this is accomplished in a volume of moderate size, priced so as to be within the command of all. A rational grasp of its subject is facilitated by the clearness of the style, the intelligent use of heavy type for important headings in the text, and the brief marginal notes, which epitomize the paragraphs and guide reference thereto. The work is exceptionally rich in illustrations, its 385 pages being embellished with no less than 227 beautiful engravings and two colored plates containing 30 figures. A favorable reception for such a work seems assured.

**MODERN GYNECOLOGY**, a Treatise on Diseases of Women. Comprising the results of the latest investigations and treatment in this branch of Medical Science. By Charles H. Bushong, M.D., Assistant Gynecologist to the Demilt Dispensary, New York, formerly attending Physician to the Northern Dispensary, and assistant to the Vanderbilt Clinic College of Physicians and Surgeons, New York.

The design of this work is to cover the progressive field of Gynecological Science to date ; and is largely devoted to the most improved measures and recent methods of operation and treatment, that come within the scope of, and that can be of service to the general practitioner.

The major operations are not given in detail, though the symptoms indicating the services of a specialist are fully described. Illustrated by upwards of one-hundred engravings.

One large 8vo Vol., Cloth 400 Pages. Fully illustrated, \$2.75. E. B. Treat, publisher, 5 Cooper Union, New York.

**METHODS OF PRECISION IN THE INVESTIGATION OF DISORDERS OF DIGESTION**, by J. H. Kellogg, M. D.

Superintendent of the Sanitarium at Battle Creek, Mich., Member of the American Medical Association, Michigan State Medical Society, American Public Health Association, British and American Associations for the Advancement of Science, American Microscopical Society, American Social Science Association, Mississippi Valley Medical Association, Soci t  D'Hygiene of France. British Gynecological Society, and of the International Periodical Gynecological Congress. Modern Medicine Pub. Co. Battle Creek, Mich, 1893.

**DR. JACQUES NATTUS**, Hygi ne des Fianc s. Soci t  d' ditions Scientifiques ; Paris, Place de L'Ecole-de-M decine, 4 rue Antoine-Dubois ; 1893.

To those about to choose a wife on scientific principles, this little work would prove of great service, for the author not only gives all the tests for beauty of form and character, but also tells what kind of a father-in-law and mother-in-law one should select. Unfortunately, very few people do make their choice of a life companion in that way, and it is fortunate that they do not. The old-fashioned way of choosing the one they fall in love with and continue to love for a reasonable length of time, say for about a year, has given on the whole very satisfactory results.

The author's advice on the subject of honeymoons, which he severely condemns, is very good, and the reasons for doing so are well worth reading. As medical men are often consulted on a question of so much interest to the life-



long happiness of their patients, it would be well to obtain this small book of consultation.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third series. Volume the fourteenth. Philadelphia: printed for the College, 1892.

This is a handsome volume of nearly 250 pages, and contains besides the address of the President, Dr. Weir Mitchell, a number of interesting papers, including among others Acromegaly, by Packard; Cystic Degeneration of the Muscular Fibres of the Heart, Meigs; Obscure Forms of Gout by Dulles; Removal of Uterine Fibrinata by Baldy; Notes on Irritable Heart in Neurasthenic Cases and the Effect of Limited Muscular Action of the Heart in Health and Disease, by John K. Mitchell; A Common Price in the Vermiform Appendix with Secondary Abscess of Liver, by George E. Shoemaker; Hysterical Rapid Respiration, with cases, by Dr. Weir Mitchell. These and many other papers of the greatest interest and written in faultless style make up a volume of which the College of Physicians of Philadelphia may well be proud.

A REMARKABLE RESPIRATION RECORD IN INFANTILE PNEUMONIA. (Reprinted from the Archives of Pediatrics, March, 1892.) Acute Enlargement of the Thyroid Gland, Angio-Neurotic Oedema (Reprinted from the International Medical Magazine, April, 1892), by William A. Edwards, M.D., San Diego, California, Fellow of the College of Physicians of Philadelphia, American Pediatric and Philadelphia Pathological Societies; formerly Instructor in Clinical Medicine and Physician to the Medical Dispensary in the University of Pennsylvania; Physician to St. Joseph's Hospital; Associate Pathologist to the Philadelphia Hospital, and Member Advisory Council for the Section on Diseases of Children of the Pan-American Medical Congress.

REPRINTED FROM UNIVERSITY MEDICAL MAGAZINE, March, 1893. Report of a case of syringomyelia, with exhibition of sections of the spinal cord, by James Hendrie Lloyd, A.M., M.D., Physician to the Philadelphia Hospital, to the Methodist Episcopal Hospital, and to the Home for Crippled Children.

CHOLERA: ITS CAUSES, SYMPTOMS, PATHOLOGY AND TREATMENT, by Roberts Bartholow, M.D., LL.D., Emeritus Professor of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia. In one 12mo volume of 127 pages, with 9 engravings. Cloth, \$1.25. Philadelphia: Lea Brothers & Co., 1893.

THE LITERATURE OF SEA-SICKNESS, by J. A. Irwin, M.A. Cantab., M.A., M.D. Dub., M.R.C.S. Eng., etc., New York. Reprinted from the *Medical Record*, May 20, 1893. New York, Trow Directory Printing and Bookbinding Co. 201-213 East Twelfth Street; 1893.

LES ACCIDENTS DE LA PREMIÈRE DENTITION, par P. Poinso, directeur de l'École Dentaire de Paris, correspondant de la Société Odontologique de Londres, officier d'Académie, dentiste de l'Asile Clinique Ste. Anne. Paris: Société d'Éditions Scientifiques, Place de l'École-de-Médecine 4, rue Antoine-Dubois; 1893

#### CLASS-ROOM NOTES.

[From the *College and Clinical Record*.]

Prof. Wilson believes that the salicylates are almost specifics in *Rheumatism*.

Prof. Wilson in the treatment of *Diphtheria* with the mercurials prefers calomel.

Prof. Graham says children require a different treatment in cases of *Appendicitis* from adults.

Prof. Hare thinks *Croton Chloral* is infinitely preferable to chloral in sleeplessness due to pain.

Prof. Keen says that a dose of *Digitalis* administered before an operation will often avert a shock.

Prof. Hare says *Croton Oil* should never be employed as a purgative except in cases of extreme necessity.

Prof. Hare believes that *Digitalis* only manifests an action on the nervous system taken in poisonous doses.

The *Normal Salt Solution*, Prof. Keen states, is about a teaspoonful of salt dissolved well in a pint of sterilized water.

In cases of severe *Chordee* Prof. Keen states that if leeches are applied they will prove effective in reducing it.

Prof. Wilson says it is a common occurrence in cases of *Scarlet Fever* that the rash will not appear around the margins of the lip.

Prof. Keen says that *Lupus Exedens*, which appears most commonly on the face, is not tubercular, but an affection of the epithelial type.

As a *Disinfectant for Urine* in cases of gonorrhœa, Prof. Keen recommends either salol or boracic acid in ten-grain doses three times a day.

Prof. Keen says there is at present no positive symptom known by which we can diagnose between a *subdural* and an *extradural* hemorrhage.

Prof. Graham pointed out the fact that in cases of *Empyema* occurring in children, the pus is very often absorbed, but that in adults it is never absorbed.