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ADDRESS IN MEDICINE.*

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Mr. Chairman and Gentlemen,—In asking a member of the profession residing in the far West to deliver the address in medicine, I feel that a compliment has been paid, not so much to myself, as to the West. To demand that we, living so far away from the centres of learning, from the great teaching institutions of the East, should nevertheless be expected to keep ourselves abreast of the times and in touch with the latest discoveries, is surely expecting a great deal; and then to expect that one, living under such barren influences, should be able to give you an address equal to this occasion, containing some food for thought and pointing out the pathway of duty and practice, is to look still farther for a miraculous manifestation. But the genius of the West is ever equal to all occasions. It has grown accustomed to the knowledge that the best wheat in the world grows in our North-West: that our forests can supply the hugest sticks of timber known to commerce; that our fisheries can supply the world with illimitable quantities of salmon, halibut and other delicacies; always the best, the hugest, and the illimitable, ever the superlative. So it is not strange that a strong egotism has developed out here, sufficient even to accept this task, and hoping, but with misgivings, that its self-sufficiency may not suffer in the attempt. Personally, I feel that a great honor has been conferred on me, and I most sincerely thank the Association for its

* Read at meeting of Canadian Medical Association, Vancouver, B.C., August, 1904.

kindness and trust that its confidence may not have been misplaced.

As to-day we seek to adapt treatment according to the cause of disease, so, looking back to the remotest ages, we find the human instinct groping along the same pathway. But in the early ages of the race science was unknown, and miracle was seen in every unexplainable phenomenon. Hence disease was attributable to the wrath of a good being or the malice of an evil one, and treated accordingly. Among the ruder tribes the Medicine-man has ever held sway; but even in higher civilization we find that in Egypt the priests of Osiris and Isis claimed powers over disease; in Assyria, the priests of Gibil; in Greece, the priests of Aesculapius; in Judea, the priests of Jehovah. While these have ceased to exist with the decay of their respective religious systems, the ruder primitive tribes have persisted. They are found among the aboriginal tribes of Africa to-day, as also on this side of the Atlantic. Parkman, in discussing the customs of the Hurons, says: "A great knowledge of simples for the cure of disease is popularly ascribed to the Indian. Here, however, as elsewhere, his knowledge is in fact scanty. He rarely reasons from cause to effect, or from effect to cause. Disease, in his belief, is the result of sorcery, the agency of spirits or supernatural influences, undefined and indefinable. The Indian doctor was a conjurer, and his remedies were to the last degree preposterous, ridiculous or revolting."

Among the Coast Indians in British Columbia the practice is still kept up, and it may interest you to hear me relate what I saw not forty miles from here only three years ago. In the Indian villages are to be found huge barnlike structures called rancheries, each consisting of one immense room and capable of accommodating twenty or thirty families. Living close to nature, the floor, of course, is mother earth. Rough stalls, arranged along the walls, separated by screens of rush matting, and open towards the centre, form the none too private retreats of the individual families. Each lights its own fire on the earthen floor opposite, whereon their rude cooking is done. The smoke escapes through the shingles, as there is no chimney, and in the absence of windows the light comes in through the cracks in the wooden walls. I went down one evening to such a place to see a sick Indian woman. It was dusk, and the waves of the sea were lapping the beach close at hand, while dusky children flitted by in the twilight, engrossed in some pastime. On entering the only door in the rancherie, I found it in utter darkness, excepting for a small fire burning at the extreme end of the building. Here was presented a study in light and shade to have suited a Rembrandt. Around the fire was arranged a circle of Indian women

(it is always the women who are closest to the mysteries of nature), while at one side was the patient, too weak to sit up, but supported by a couple of sympathizers. Facing her was the Indian Medicine-man trying to cure her disorder by directing his energies to overcome the supposed cause of her disease. My diagnosis was tubercular pleurisy with effusion, but my Indian confrere had diagnosed possession by an evil spirit, and as he was in charge of the case, I could only look on. Each woman, with a stick in either hand, was beating on a piece of wood before her, making as much noise as possible, and adding blood-curdling explosives to the incantations of the Medicine-man, in a vain endeavor to drive out, to scare out, the possessing spirit. But unfortunately this kind comes not forth by such rude wooing. And so, from the gray dawn of time, down to what we imagine is the mid-day splendor of to-day, such forms of practice have persisted through all the ages.

But let us not imagine the air clear yet; the fog is only getting thinner. In other times the sun has attempted to shine through. Five hundred years before Christ, Hippocrates broke away from the old traditions of healing, the supernatural methods, and laid the foundations of medical science on experience, observation and reasoning. Later his teaching influenced the school of Alexandria, where positive knowledge was developed by the adoption of anatomic studies; and centuries later under Moslem patronage, the medical sciences reached their highest development in the Middle Ages. But Europe was less fortunate under Christian influences. There was a return to the belief in the supernatural origin of disease, and in the practice of supernatural methods to combat it. Retrogression prevailed over progression. Still believing in demoniacal possession, the various phases of exorcism were practiced, even combined with such practical methods as the following: "To disgust the demon with the body he was tormenting, the patient was made to swallow or apply to himself unspeakable ordures, with such medicines as the livers of toads, the blood of frogs and rats, fibres of the hangman's rope, and ointment made from the body of gibbeted criminals." For myself I would prefer the simpler methods of the British Columbia Medicine-man. Cures effected by relics, by pilgrimages and sacred observances obscured the horizon, while even the Divine Right of Kings gave the world the blessings of the Royal Touch for King's Evil. All these practices were injurious to the development of medical science, for "why should men seek to build up scientific medicine and surgery when relics, pilgrimages and sacred observances, according to an overwhelming mass of concurrent testimony, had cured hosts of sick folk in all parts of Europe?" But finally the tide turns. The discoveries of

Galileo, Kepler and Newton had their reflex on the sister science of medicine, and investigators made bold to pry into the secrets of life and learn her vital processes, to seek the true causes of disease and endeavor to find the cure. Relapses have occurred. As fanatics opposed the introduction of the fanning-mill because it infringed on the divine prerogative, which furnished the wind to winnow the wheat from the chaff, similarly opposition arose to the introduction of inoculation, vaccination and the use of anesthetics. And as supernatural agencies were invoked to cure diseases supposed to be of supernatural origin, so to-day we have the various sects of faith-healers, magnetic healers and what not.

But, as Carlyle says, "Only what is true will persist. Out of the merciless fire of modern criticism truth, like asbestos, will come forth purified; but vain theories, gaseous, will be dissipated among the waste winds forever."

But where do we stand to-day? Have the fogs all lifted and do we now see clearly? Unfortunately not. Investigators to-day are not numbered by tens but by hundreds, pursuing many diverse threads of thought, and giving to the world their conclusions, fully formed or immature, probable or fantastic, relevant or irrelevant.

The search for the causes of disease still continues as actively as ever, but disappointments are far more numerous than successes. Concerning sarcomata, Stimson, in this month's *Annals of Surgery*, says: "We are absolutely in the dark as to etiology, and no farther advanced in prognosis and treatment than were our colleagues a quarter of a century ago."

Dr. Snow, Chief of the London Cancer Research Committee, has come to almost identical conclusions regarding carcinoma. As regards these two classes of disease, we are, therefore, forced to be content, at present, with increased ability to diagnose them, and have to thank the surgeon largely for the groundwork of this advance.

In 1882 Koch proved tuberculosis to be due to a specific bacillus, and in 1890 startled the world with the announcement of a cure. We all remember the reaction, the tremendous disappointment felt not only by the laity but even more keenly by ourselves, when slowly, unwillingly, we were forced to admit that our expectations were not realized. Early in 1903, Behring delivered a lecture before the Vienna Medical Society, detailing his experiments on animals with his own special serum, and speaking very hopefully as to the future. Perhaps he, who with Roux, discovered in diphtheritic antitoxin the greatest remedial agent of recent times, will unravel the puzzle.

More recently, Marmorek, of Paris, has staked his great reputation by giving to the world the results of his labors in a new

serum, and we can only trust that time will prove that it possesses some definite value. Later still, that our professionally agnostic brethren may not starve for want of food, an Italian professor has enunciated that Koch's tubercle bacillus is not the cause of phthisis, but rather an uncouth octopoid micro-organism of his own finding. Well may the general practitioner raise his hands in despair and wonder what he can believe.

But experience has shown that in tuberculosis, as in other things, prevention is better and surer than cure. Statistics are piling up year by year, adding proof where now none is needed, that, recognizing tuberculosis as an infectious disease and treating it accordingly, a definite gain can be recorded. Education of the public has already advanced so far that more positive steps should be enforced. Compulsory notification, as in other infectious diseases, proper disposal of infected excreta, disinfection of infected dwellings, etc., should be rigidly carried out, and the same positive results would be attained throughout the country at large as already obtain in the few places far advanced enough to follow this self-evident line of action. A resolution should be passed by the present meeting, urging the various Provincial Governments to introduce the necessary legislation, and I venture to affirm that, coming from so influential a body of scientists, the suggestion would be adopted. And, if adopted, as I have already said, the educated sentiment of the public would not obstruct, but rather would uphold the action of the authorities. Perhaps this body has already taken such action, but until the various authorities have adopted the suggestions, I consider it the duty of this Association to yearly reiterate the advice. Then finally will begin an era of diminution, until, as some of our more optimistic brethren affirm, fifty years will see the extinction of the Great White Plague.

Councilman's pronouncement as to the causative agent of variola still remains unchallenged; while more recently Mallory, of Boston, has described a protozoan which he has named *cyclaster scarlatinalis*, and which he believes has a causal relation to scarlet fever. In the winter of 1902-3, Mosher, of the Kinderspital in Vienna, announced the discovery of an anti-scarlatinal serum prepared from a coccus constantly found in the throats of subjects of that disease. His statistics, covering several hundreds of cases, both mild and severe, were, as such statistics usually are, certainly favorable; but he failed to prove his coccus as the cause of the disease, and the consensus of opinion inclines to believe that the favorable results were due to the combatting of the influences of a mixed infection. The same favorable results can also be obtained by the use of anti-streptococcic serum, which reagent, in other forms of infection, has not the wide use among the profession that its virtues demand.

To turn to another field, where surgery and medicine meet, we find that some definite progress has been made. Numerous operations on the stomach have shown that ulceration is more common there than formerly suspected. The physician of to-day must not expect to find all the classical symptoms, for we can have ulceration without pain as we also can have it without hemorrhage. Brilliant results have been obtained in most inveterate cases, by operative methods, results such as medicine has not afforded. Under these circumstances we have the added responsibility of advising some of our patients to submit to the risks of an operation, a responsibility which will often tax our courage to the utmost, but which we, as true men, should not shirk when the occasion arises.

In diseases of the biliary tract, surgery has also disclosed many new features. The post-operative biliary fistula, in cases of obstruction of the common duct, affords a positive means of correctly estimating the quantity and qualities of the bile. The use of cholagogues has an established place in our practice, but now our faith is rudely shaken. Although the term cholagogue has been in use for more than two thousand years, and is apparently as firmly seated as the everlasting hills, recent investigations have caused it to tremble, and it may eventually disappear as did many a mountain in some prehistoric cataclysm. Mayo Robson, in estimating the effects of certain so-called cholagogues, found that the old reliable calomel caused a diminution instead of an increase in the flow of bile. Enonynim gave the same result, while rhubarb and podophyllin, turpentine and benzoate of soda gave negative results. His conclusion is: "The supposed cholagogues investigated seem to rather diminish than increase the amount of bile excreted." Perhaps the most of us feel like saying as the fox to the grapes, "We did not think they were much good, anyway."

As regards cholelithiasis we have also learned a great deal, and have had to revise our views as to etiology, and must consider the typhoid bacillus and the bacillus coli the primal cause for the majority of the cases. The French school go so far as to affirm that, without infection at some stage of the disease, we will not have cholelithiasis. Legars says: "The infectious origin of biliary lithiasis is proved, for the following reasons: If we have shown that gall-stones do not depend on general and obscure humoral conditions but on a local infectious process, the disorder becomes for the most part also a local matter and as such accessible to direct local means. If the calculi are once formed, they increase and multiply, and we can still be sure that they are due to a single attack of lithogenous infection. At a given moment, microbial invasion of the gall-bladder took place, and

these microbial invasions, of intestinal origin, depend on various causes and may occur in the course of different acute disorders; at any rate the calculous disorder comes from this primordial lithogenous cholecystitis. Once more, it is a complaint of the gall-bladder and ducts, not of the bile, and lithogenous cholecystitis is comparable to many other localized infections, such as appendicitis, for instance. By removing the calculi, or the gall-bladder, recovery may be complete and final. Finally, we find infection not only at the origin of lithiasis, but also at all stages of the disorder; it is the leading factor of the various complications as well as of the prognosis of the complaint."

Deaver says: "It can be emphatically stated that gall-stones are always the result of precipitated salts and tissue debris, following in the wake of bacterial infection, mild or severe in degree. Furthermore, the complications of chronic gall-stone disease, adhesions, ulceration, fistulae, liver and pancreatic disease, are also due to infection." He also says: "The treatment of chronic gall-stone disease, its complications and sequelae, can only be surgical. Gall-stones are formed through the aid of infection, and therefore the disease is local and requires local treatment, that is, operation, and not solvents or cholagogues to relieve a condition resulting from faulty metabolism."

Therefore, the same application can be made here as was made in reference to gastric ulceration. We should realize the impotence of medicines. Solvents do not dissolve, and the old treatment was merely that of temporizing, with the hope that Dame Nature would aid our misguided efforts by expelling the offending bodies through the natural passages. Such expectancy is often dangerous. Surgery holds out a positive cure in a large proportion of cases, but too many of us fear the responsibility of advising such radical treatment, and our patients suffer from our timidity.

Let us now return to a consideration of the work being done by our great army of investigators. In reviewing their work, not only that of the past year, but of recent years, we see labor multiplied, mountains heaped on mountains in the attempt to scale the heights of the unknown, until, considering the results attained, we might be forgiven for inquiring, "What avails so Titanic a struggle?" The causes of disease are so intricate that they are reached only after ages of scientific labor. Yet a few successes have made us impatient of the coming of complete victory. Some successes have proved to be stars of the first magnitude, others but the smallest flint sparks to illuminate the truth, whilst many so-called discoveries have given no more light than when wax is struck on wax, idle theories, thoughts written on the brain, and now, let us hope, rubbed out forever. Looking at the workers

as constituting an army, one searches in vain for a controlling spirit, one which will concentrate the tremendous and apparently never-tiring energies of this mass of workers into a well-directed assault on some stronghold of the unknown. Modern investigators are, to quote a phrase of Carlyle's, "like a hapless servant gone masterless, unfit for self-guidance." To give an idea of the varied subjects being studied, let me quote the titles of a few of the papers published during the year in but one publication, *The Journal of Medical Research*: "On the Appearance and Significance of Certain Granules in the Erythrocytes of Man," "The Influence of Certain Bacteria in the Coagulation of the Blood," "The Relation of Specific Gravity and Osmotic Pressure to Hemolysis," "The Bacteriolytic Complement Content of Blood Serum," "The Agglutination of the Pneumococcus with Certain Normal and Immune Sera," "Cat's Blood: Differential Counts of the Leucocytes," "A Study of the Agglutinating Hemolytic and Endothelialitic Action of Blood Serum in Variola," and so on. I do not wish to speak slightly of the labors which these titles of so diversified investigations portray, but I do affirm, that if the workers of some one strong school were under one sole control, their campaign planned against one enemy, and their work properly correlated, more progress would be made in a given time than by the independent, uncorrelated work of all the schools combined.

Such a view is perhaps too Utopian. The world will "gang its ain gait," and our workers will continue to work as before. Truths will gradually be unfolded and science will be developed in the medical field as in the other realms of science. As Marconi did not have to wade through all the drudgery of elaborating the data he needed, but utilized the work of others in perfecting his discovery; as Roentgen needed to win but a single step in advance of others in the race to gain the palm, so, too, can we confidently look forward to the appearance of a master from among our members, one who, building with the bricks made by others, will erect the edifice of truth, containing the key which will unlock the secrets of nature and give us command over our most illusive foes. We all feel that that day is near at hand, and when it dawns we will join unselfishly, without a trace of jealousy, in crowning that master with the everlasting laurel.

In conclusion, Mr. Chairman and gentlemen, I thank you for the patience with which you have listened to this address, and wish you every success in your labors in the Section of Medicine.

**CHEST EXAMINATIONS: A SYSTEM OF RECORDING
OBSERVATIONS.***

BY J. H. ELLIOTT, M.B.,

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It is scarcely necessary for me to preface my communication by any remarks as to the great value to the physician, and through him to his patient, and even to the profession at large, of carefully kept records of cases examined and under treatment. And though the value of such records is recognized, how few general practitioners make any attempt to properly record their findings upon examination of patients. Much valuable material is thus lost, and when at a later period he may be desirous of making some report on a case, there is only the memory, the prescription book and the cash book to be referred to by the physician for data.

The well-written, extensive history of the patient, his symptoms and the findings on physical examination, are of inestimable value to the student and young practitioner in teaching the importance of thoroughly going into details, and to train all the faculties of observation to the highest degree of perfection, and it is to be hoped with the constant extension of the curriculum of our schools, that nothing will ever interfere with our teachers in clinical medicine and surgery insisting upon proper case taking, with attention to the minutest details.

The busy physician feels the need of some short method of recording notes where many patients have to be seen daily. In my own work, with a large number of pulmonary cases under close supervision, with examinations at frequent intervals, I have found it necessary, in order that other work might not suffer, to adopt a graphic method of charting the auscultatory and other phenomena found upon chest examination. At first adopted purely to save time, I have found it of immense value not only in saving time in recording my findings at the time of examination, but also in comparing previous examinations and noting at once any changes.

A momentary glance at such a pictorial record gives one a clear comprehension of the conditions present, which if written *in extenso* would require several minutes to clearly picture to the mind the area involved and physical signs there present. Several lines of written matter cannot convey to one the picture given by a diagram of the chest on which is superimposed a few

* Read at meeting of the Ontario Medical Association, June, 1904.

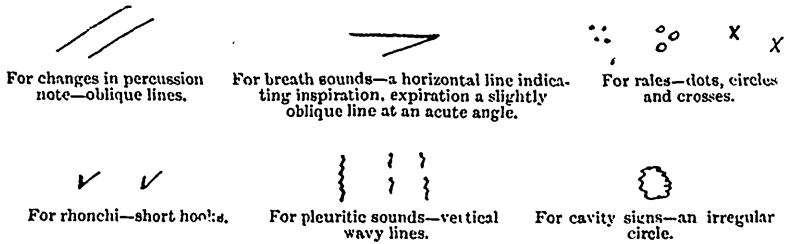
simple symbols showing area over which abnormal physical signs are to be found, and the nature of the same.

For the method of graphic charting which is presented to you to-day, I cannot claim originality. I began the use of symbols on the suggestion of Dr. E. C. Ashton. It has grown with several years' experience, and I have incorporated what I have considered the best points of systems in use elsewhere. Those of Wyllie, of Edinburgh, and Sahli, of Bern, have been modified by various writers, but none of these have I been able to find satisfactory. To Dr. McPhedran and others I have been indebted for valuable suggestions.

Le Bureau central contre la Tuberculose was to consider two weeks ago in Paris the adoption of an international system of symbols. Their report is not available, and probably will not be final for another year or two. When adopted, I shall be pleased to report it to this Society.

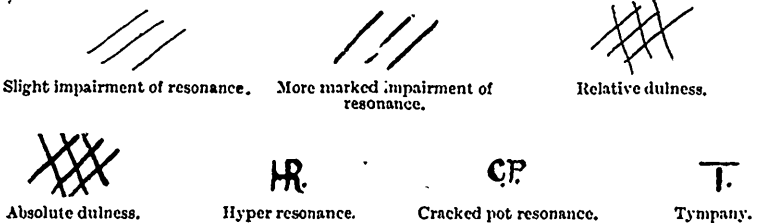
In the meantime I present the system which I have found invaluable, which I trust will be of service in stimulating more accurate records of physical signs, as well as being useful in the saving of much time.

The underlying principles are:



The *length* of a line indicates the comparative length of the sound. The *thickness* of a line indicates the comparative density of the sound. A *dot placed above or below* indicates the pitch. For other physical signs, abbreviations are used.


PERC.: PERCUSSION.





As an alternative method of indicating percussion changes, shading the area with blue pencil may be used, superimposing on this the symbols indicating changes found by auscultation, etc.


B. S. : BREATH SOUNDS.


N.V.
Normal vesicular—if no note is made it is granted that B.S. are normal.


 Inspiration slightly roughened. Expiration not prolonged.


 Inspiration slightly roughened. Expiration prolonged.

 Inspiration harsh. Expiration somewhat so and prolonged.


 Bronchial breathing.


 Rough, low-pitched inspiration with high-pitched expiration.


 Harsh, wavy inspiration (cogwheel). Expiration not prolonged.


 Both inspiration and expiration roughened and wavy. Expiration prolonged.


ADVENTITIOUS SOUNDS.


 Crepitant rales.

 Dry rales. (If these terms be used.)


 Moist rales.

 Small, medium and large crackling rales.


 Sibilant rales.

 Rhonchi.

ADVENTITIOUS SOUNDS WHICH SEEM PLEURAL IN ORIGIN.

 Pleuritic crackles.

 Pleuritic rub.

 Signs of cavity formation.

For conditions noted upon inspection and palpation, abbreviations which explain themselves are used. Many others than those shown here readily suggest themselves; *e.g.*,

Em. Chest emaciated.
Clav. Prom. Clavicles prominent.
Exp. Lim. Expansion limited—

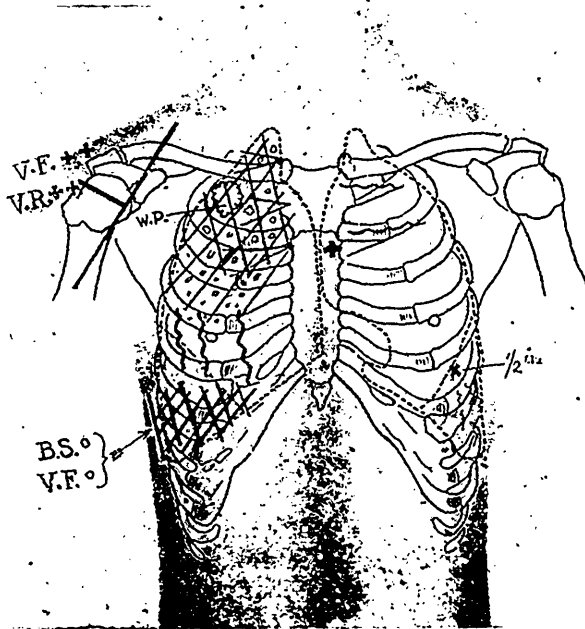
to which may be added notes showing comparison of the two sides.

Clav. Prom. Rt. + Indicating that though both are prominent, the right is more so.
Exp. Lim. Rt. — — — Expansion is limited, the left having very little movement.
V.F. + + = Vocal fremitus much increased.
V.R. — = Vocal resonance diminished.

V.R. °	=	Vocal resonance absent.
W.P.	=	Whispered pectoriloquy.
W.V.	=	Whispered voice.
Cond.	=	Written under any symbol indicates that the sign is conducted.
Succ.	=	Succussion splash.
Coin.	=	Coin sound.
+		Placed over second left interspace near sternum would indicate that the pulmonary second sound was increased or decreased in intensity.
—		
x		To indicate impulse.

The use of the plus and minus signs saves a great deal of writing, indicating whether the deviation from normal is slight (+) (—); moderate (++) (— —); or marked (+++) (— — —).

Em. Little Moot Rt.
Both clav. prom. Rt. ++



For example, this chart would tell one at a glance: Patient emaciated. Both clavicles prominent. Rt. much more marked. Fair expansion of the left chest. Movements of right much restricted. Almost absolute dullness apex to third rib with vocal fremitus much increased and bronchial breathing present. Area full of moist rales with softening in progress and one well-marked excavation. Comparative dullness for some distance below this with small moist rales, then a friction rub well-marked, and below

this to the costal margin absolute dulness with absence of vocal fremitus and breath sounds. Harsh, wavy breathing left apex with no rales, probably compensatory. Apex beat displaced outward half an inch beyond nipple line. Pulmonary second sound accentuated. A few pleuritic crackles at left base.

It is of great assistance in using this or a similar system, to have a chest diagram of fair size; the average one placed on the market in the way of gummed diagram or rubber stamp is rather too small. After a long search for a suitable one, I have adopted that of Musser,* adding the outline of the lobes of the lung and of the pleura. The plate was prepared from a drawing made by Mr. Kelly, of the Toronto Lithographing Co., and should any member of this Association require such a diagram, I would be much pleased to have it used. I believe it is already in use in the Hospital for Sick Children in Toronto. In my own work I have the front and back of the chest printed on either side of a card of standard size, using it as a part of a card index system of recording cases, a system which I put into use on the advice of Dr. N. A. Powell, to whom I am also indebted for much help in the completion of the details of the same.

* John H. Musser, "A Practical Treatise on Medical Diagnosis." 3rd Edition.

THE ARID CLIMATES.*

BY J. FRANK McCONNELL, M D., LAS CRUCES, MEXICO.

CLIMATE is relied upon to a greater extent for the arrest of pulmonary tuberculosis than for any other disease.

If this be true, and it would be rash to gainsay it, a brief consideration of the so-called arid belt will serve to demonstrate the peculiar features of a region which has produced more permanent arrests of tubercular involvements than any locality extant.

For the purpose of this monograph it will be sufficient to refer to but Colorado, New Mexico, and Arizona, since those adjacent parts, which are politically in other States, are geographically of those named. For example, El Paso is politically in Texas, while topographically it is part of Southern New Mexico; similarly with portions of Wyoming, Utah and California.

Any consideration of this region must of necessity be both general and particular, since all of the country tributary to the Rocky Mountains, from Canada to Mexico, and the desert to the west of them, presents features which are possessed in common, and at the same time, it is equally true that the various localities exemplify great variations of these characteristics, that are of deep interest to the student of climatotherapy.

The general features may be reviewed under the captions of altitude, purity of atmosphere, sunlight or sunshine, humidity and soil.

Altitudes may be arbitrarily classified as high, intermediate or moderate, and low.

High.—Localities situated more than 4,500 feet above sea level belong to this sub-division. The majority of the resorts in Colorado, Northern New Mexico and Northern Arizona, enjoy this distinction:

ILLUSTRATIVE POINTS :—	ALTITUDE.
Santa Fe, New Mexico	6,939
Las Vegas, New Mexico.....	6,398
Colorado Springs, Colorado.....	6,000
Denver, Colorado	5,294
Prescot, Arizona.....	5,300
Oracle, Arizona.....	4,800

Adaptations.—Favorable: Incident or moderately advanced cases of the ulcerative type in subjects under forty-five years of age, who have no further lesions, and whose alimentation is favorably influenced by cold. Unfavorable: Far advanced cases; those in whom emphysema and marked fibroid changes co-exist:

* Read at meeting of the Ontario Medical Association, Toronto, June, 1901.

those in whom the circulation is feeble; those subject to catarrhs, to whom rapid variations in temperature are a serious menace. Hemoptysis is not a contra-indication.

Intermediate or Moderate.—Localities which are between 2,500 and 4,500 feet above sea level:

ILLUSTRATIVE POINTS:—	ALTITUDE.
Las Cruces, New Mexico.....	3,873
El Paso, Texas.....	3,600

Adaptations.—Favorable: Incipient and moderately advanced cases in subjects of all ages; those in whom the circulation is inclined to be feeble, especially the catarrhal types; laryngeal complication. Unfavorable: Cases with emphysema, progressive fibroid change, kidney and heart lesions.

Low.—Localities which are less than 2,500 feet above sea level:

ILLUSTRATIVE POINTS:—	ALTITUDE.
Tucson, Arizona.....	2,400
Phoenix, Arizona.....	1,100
Yuma, Arizona.....	140

Adaptations.—Favorable: Advanced cases in subjects of all ages, particularly in those who are menaced by marked variations in temperature; laryngeal complications, cases exhibiting lesions of other organs, especially of the genito-urinary tract; and those in whom there is accentuation of the pulmonary second sound. Unfavorable: Young adults of good physique; especially those whose appetite is mal-influenced by heat. It is but meet that at this point mention should be made of Indio, a locality situated in the California desert, some hundred feet below sea level. The writer has seen several far advanced cases that had not improved in various altitudes go on to a considerable degree of improvement in this region.

Purity of the Atmosphere.—Owing to the mountainous and desert character of the various localities comprised in the arid belt, the comparative paucity of those essentials conducive to the support of a large population, there is no lack of an abundance of pure air. Again, the practical absence of any opportunity for decaying vegetable matter precludes the possibility of organic combustion arising from chemical, physiologic or zymotic agencies, which are favorable to the development of the tubercle bacillus, and other pathogenic micro-organisms. The aseptic feature of the atmosphere is of the greatest moment, however, in preventing favorable opportunity for converting a tubercular focus into one of mixed infection, *since the most untoward accident which may befall a tubercular individual is that he should become consumptive.*

Sunshine or Sunlight.—That there is a direct and intimate relationship between sunlight and dryness cannot be successfully denied, but in the writer's opinion the real feature of value is summed up in the term brightness. Nowhere is sunlight more brilliant and of greater duration than in the arid regions, where it may be truthfully stated that there is sunshine on almost every day of the year.

Solar heat increases all the functions of animal as well as vegetable life; *peripheral circulation* is more active, to the advantage of internal organs, which thus free themselves from stagnant blood charged with excrementitious principles. Light, also, as seen in vegetation, plays a most important part through its active rays. "It reddens the blood, it cures chlorosis, in the same manner as it restores the color to plants bleached in darkness."

Humidity.—It is to this part of our subject that we would most particularly invite your attention, since it is the consensus of opinion among the practitioners of this region (of New Mexico at least) that the low relative humidity or atmospheric dryness which the south-west possesses, plays a role in the therapy of pulmonary diseases which is deserving of a better recognition than that of being classified as a mere "useful adjunct."

The relation between temperature and humidity is an intimate one. The amount of water that can exist in the gaseous state depends on the temperature. The higher the temperature the greater the possible humidity; the lower the temperature the lower the possible humidity. Water exists in the gaseous state at all observed temperatures.

The amount of moisture in the atmosphere in any given locality will be governed, firstly, by the temperature of the region; secondly, by the nature of the evaporating surface of the place; thirdly, by the rate at which the humidity is carried away; and, finally, by the rate at which humidity is brought to the region by the prevailing winds. As the temperature declines with altitude, it is evident that the humidity possibilities of elevation must decline; though in relation to the last statement it must be recollected that during certain seasons and on mountain slopes upon which the clouds gather the humidity is increased. *The dryness of the atmosphere in the arid belt is a primary requisite for the early arrest of the tubercular process.*

Soil.—Whether the soil belongs to the gravel, sand or adobe types it possesses the special characteristic of dryness. It is an unfortunate feature that many of the towns have been built in old river bottoms, where the adobe clay becomes pulverized and makes itself noticeable whenever there is wind or much traffic.

It is worth mentioning that among the alfalfa meadows there

	Elevation	Latitude	Soil	Normal Air-Pressure	Temperature			Humidity				No. of Cloudy Days	Mean Monthly Wind Movement
					Annual	December	August	Relative	Absolute	Dew Points	Rain-fall		
Santa Fe, N.M.	7,000	33.34	Sand and Adobe..	24.50	51	32	71	50	1.90	30	16.1	52	5451
Colorado Springs, Colo.	6,000	38.51	Gravel.....	24.03	47	28	70	51	1.84	29	15.2	58	6565
Denver, Colo.	5,280	38.76	Gravel and Sand..	24.18	49	29	76	50	1.86	30	14.1	63	4898
Flagstaff, Ariz.	6,300	34.26	Gravel and Sand..	.....	53	33	74	51	2.18	38	16.0	51	5150
Oracle, Ariz.	4,650	32.50	Gravel and Adobe	.....	60	44	82	48	.....	..	17.7	..	....
Las Cruces, N.M.	3,850	32.17	Adobe.....	25.02	59	46	77	38	2.95	42	7.2	18	4947
Tucson, Ariz.	2,300	32.14	Sand and Gravel	27.50	69	50	88	42	3.20	44	12.0	57	3765
Phoenix, Ariz.	1,100	32.28	Adobe.....	28.68	70	52	90	45	3.08	42	9.0	52	3380
Yuma, Ariz.	130	32.44	Sand.....	29.90	72	56	96	46	3.22	43	3.1	18	4322

is little or no dust; the writer having recently entered a cottage which had been closed for nearly a year was very much surprised to find practically no dust; the cottage is situated in a broad hacienda where the alfalfa grows luxuriantly.

Applied Climatology.—The tubercular patient, properly selected, who is placed in the indicated environment under competent supervision, soon exhibits the following phenomena: 1. Cough is checked; expectoration increased (at first), and made easy. 2. The respirations are deeper and slower. 3. Febrile symptoms disappear. 4. A noticeable increase in chest development. 5. A diminished anemia. 6. Increased appetite with consequent gain in weight and feeling of well-being.

Flick has stated, "Climate itself is of little value in the treatment of consumption; it is the *outside* air which counts, and it makes very little difference where the outside air is got from, so it is got *every day, and all the day and night.*" (The italics are the writer's.)

The open air plan of treatment, boldly pursued in the arid region, *alone* makes possible this dictum. Osler has stated: "The cure of tuberculosis is a question of nutrition. Digestion and assimilation control the situation; make the patient grow fat and the local disease may be left to care for itself." Nowhere can the truth of this axiom be better exemplified than in the arid belt, where the possibilities of outdoor life are unlimited, where digestion waits on appetite and fresh air is a forerunner of both.

"If it be a good thing for a sick man to change his residence, it must be a proper thing for him to know what it is that he is avoiding, and what it is that he is to *acquire in exchange for it* in another place." If this trite remark of Scoresby-Jackson is in some small way realized through the medium of this article then, indeed, will the writer feel content.

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Selected Articles.

THE VIVISECTION PROBLEM: TWO VIEWS.

I.—VIVISECTION AND A HUMANE SPIRIT.

BY WILLIAM LAWRENCE,
Bishop of Massachusetts.

MANY people are puzzled to-day about the question of vivisection. Is it humane? Is it not cruel? Has any man the right deliberately to experiment on a hundred guinea-pigs in the hope of making some discovery? Granted that a discovery is made, is it worth the sacrifice of the lives of many dumb, helpless animals?

Perhaps it is a presumption on the part of any one who has not a scientific training to write upon the subject. I have thought, however, that some people might like an expression of opinion from a layman in science who has given some consideration to the question.

Some twenty-five years ago I was called to a family in my parish in which a terrible scourge held sway. Diphtheria had struck the home; one child lay dead, another with heartrending gasps was struggling for breath, another was in the early stages of the sickness; their lives were doomed. As one watched the mother's agony and the children's cruel sufferings, his thought was, "O for some relief from this dreadful scourge!" If, by the taste of a tender pigeon or chicken, life could be sustained, how quickly would we serve it! If twenty miles away there were a physician who could stay the disease, the father would ride his horse even unto death to fetch him. Other children near by were dying of the same scourge. What were the lives of a hundred pigeons or a hundred horses, if only the scores of children who were doomed to die of diphtheria in that city during that winter could be saved?

Twenty-five years have passed, and to-day, when diphtheria enters a home, lives are comparatively safe. Thousands, literally thousands, of children are playing in our homes, thousands of men and women are doing their part towards building up our nation, who, except for the beneficent discovery of antitoxin, would, so far as any one of us can see, be dead to-day. Many

animals have been sacrificed in the progress of the discovery, to be sure. Horses are to-day put to discomfort and some slight pain in the manufacture of the material. But the free distribution of antitoxin among the poor of our great cities and its use in the hospitals are saving thousands of human lives. Mothers receive back their children to life again. I start with this discovery, for in it are suggested a few points that we need to keep in mind.

In the first place, I assume that we all agree that man depends for his life upon the use and sacrifice of animals. Every chicken and turkey on our dinner-tables tells us that. The milk that we drink is gained at the cost of the anguish of the cow which is bereft of her calf. The slaughter that goes on in our abattoirs is horrible to contemplate, if we put our mind upon it and dwell on the details; yet every one of us lives daily upon the results of the slaughter.

On the other hand, this is true: this generation is probably more sensitive to the thought of pain and suffering in animals than any other in history. The blessing of anesthetics has so released humanity from the awful terrors of suffering that we cannot endure even the thought of what our fathers passed through. Surgery has become so skilful and painless as to have lost much of its terror. Operations certainly fatal one year are comparatively safe the next year, and are almost without danger the year after; so marvellous has been the increase in the knowledge of the human body, and of the action of its organs and the intricacy of its parts. There never were so many people under the knife as there are to-day; there never have been so many lives saved by surgery and medicine as now; and there never has been so little suffering among the sick and injured. At the same time that these conditions prevail it is also the fact that vivisection was probably never before so much practiced.

The people demand, therefore, and rightly demand, that there shall be no unnecessary suffering laid upon even the lower animals. They will not allow cruelty or wilful injury in any form. The Societies for the Prevention of Cruelty to Animals and the stringent legislation against cruelty in this last generation are the efficient expressions of the feelings of modern society. No class of men, not even the leaders in science, are or should be exempt from these humane laws. Where there is cruelty, wilful injury, or unnecessary loss of life, there the State enters, arrests, and imprisons or fines the guilty.

Here, then, we have the situation. For the life and welfare of men, animals must be sacrificed; we all accept this fact when we sit down to our Sunday roast beef. The cruel or unnecessary sacrifice of animals is universally condemned.

The question in connection with vivisection is, How far have we a right to sacrifice animal life and to inflict pain upon animals for the welfare and life of man?

No one of us would undertake to say how many guinea-pigs could be set against the life of one little child. One? Ten? A thousand? How many against the lives of a thousand children? Clearly, child life and man's life are of high value. The practical question for all of us who desire the welfare of man and the saving of children's lives is, Which shall be sacrificed—men and children, or animals? For experimentation must go on, if lives are to be saved. Shall the experiments be on children or on mice and rabbits?

Shall we allow our children, thousands on thousands of them, to decline in health and become subject to all sorts of diseases through breathing the vitiated air of school-rooms, or shall we follow with interest the careful experiments with animals breathing vitiated air, thus discovering methods of purifying the air, and by the sacrifice, it may be of many, many mice and rabbits, protect and sustain the health of the children of our cities? Shall we allow our surgeons to experiment on the patients in our hospitals, killing man after man in the fruitless attempt to remove one kidney; or shall we encourage them to experiment again and again, and a thousand times again, if necessary, on all sorts of animals, that they may safely undertake the operation when the next sufferer at the hospital is brought to them?

All these things mean vivisection. So did the discovery of the circulation of the blood, on which all surgery and medicine rest; so also artificial respiration, skin-grafting, the alleviation of angina pectoris, and the cure of hydrophobia. To vivisection and experimentation on animals are due, at least in great part, our increasing knowledge of that terrible scourge, tuberculosis, and the means of preventing it. In the amputation of a limb, in these days almost bloodless and painless, nearly every step in the operation has been dependent upon the experience gained in experiments upon animals. The discovery and application of antiseptics have enormously reduced the death-rate in hospitals and sick-rooms, sufferings untold are avoided, and tens of thousands of valuable lives are saved. In his researches towards this discovery Sir Joseph Lister was dependent upon vivisection. In fact, one can hardly name a disease or form of suffering the partial relief of which has not had some relation to vivisection.

Could not these discoveries have been made without vivisection? Some would say "No," and they would have good reason for their answer. I would rather say, "I don't know," but I do know that they were not made without vivisection, and I am sure that without vivisection they would not be known *to-day*. And

are not the hastening of the discoveries and thereby the saving of thousands of precious lives worth all that they have cost?

That some vivisection is probably necessary is, I think, the verdict of almost every one who thinks of the subject at all. Still, there are many questions and doubts lingering in the minds of the people. Perhaps I may put some of them in such form as they have come to me, with a few suggestions for consideration.

(1) "Is not vivisection attended with unnecessary cruelty?" it is asked. "We read of surgeons and students in Europe who do horrible things; we see illustrations that shock us." What may be done in Europe I do not know, though I have the impression that doctors and scientists there are, as a rule, humane men.

What is done in our own communities interests us more closely. Now, if there is any case where an animal is cruelly operated on, if it is put to unnecessary pain, it is time for those who have the evidence to call in the police. Our people will not tolerate cruelty.

It is well for us to remember that, with very rare exceptions, the subject of vivisection is completely under the influence of anesthetics. If the animal moves, however, by reflex muscular action, it is very difficult for some persons not to imagine that it is in pain. We are often told by those who deplore the practice that the subject writhes and struggles.

A bit of personal experience has helped me on this point. Called to undergo as a young man a slight surgical operation, I was etherized. They were not so skilful in giving ether in those days as now. In the midst of the operation I struggled and fought as in the utmost agony. I awoke to find myself on the floor with a rug on top of me, on which the doctor sat to hold me down. The operation was successfully over. My parents were in the utmost distress at the pain I must have suffered—a distress quickly relieved when I told them that my only sensation was a funny dream of a fight, in which I came off second best—not a suggestion of pain.

We need to keep in mind that a hundred dogs may be studied under vivisection and then killed, and beyond the discomfort attending etherization feel no sensation equal to the prick of a pin. And if a student or investigator allow one dog to suffer unnecessarily, he is liable to arrest for cruelty.

There are, as I have just suggested, very exceptional instances where anesthetics may interfere with the object of the experiment; even in those cases the slightest carelessness as to suffering or unnecessary continuance of pain is, under the law, criminal. Granted even that some pain and suffering are necessary, we must remember that these experiments are carried on

with the sole purpose of so advancing science as to relieve men and women from far more suffering and agony than animals endure.

(2) Again, we are asked, "Why should medical students be allowed each one to experiment on animals? Why shouldn't they be shown in the hospitals how the work is done, and then sent forth to do it?"

Why should the motorman be compelled not only to understand the mechanism and see others handle the car, but also to handle it himself under direction before he is trusted with the lives of passengers? Because there is something in personal experience, in the touch, the sense of friction on grades and curves, which no lessons can give.

Medical science is concerned with life, and life must be studied at first hand. The body and its organs are marvellously intricate. Will a mother allow a young doctor to cut open her child's body, if he tells her that this is the first time he ever had a knife in his hand for action? She would let him know in no measured words that he could try his experiments on some one else first; and that is just what the medical student, under the careful direction of his teacher, does; he experiments, so far as is necessary and only so far, on animals, in order that he may not be compelled to experiment on children.

(3) A third question arises, "Why may not the State have an oversight of all these things, and employ agents to inspect and see that everything is done in a humane way?"

One is struck at first thought by the apparent good sense of the proposition. On second thought, one is prompted to ask why the State should take this responsibility and go to this large expense. And if it should, would the results justify the action?

The Harvard Medical School and, I take it, every medical institution are glad to welcome any disinterested and intelligent persons and show them all their methods. Is it worth while to hire agents to force doors that are already open? Are there authenticated cases of cruelty so bad or numerous as to demand inspection?

Again, agents would be required so skilled and advanced in scientific knowledge as to understand the purpose of the operation, its intricacies, and its relation to other operations. Can the State pay for such men? Agents ignorant of the subject would be worse than useless.

In England vivisection has been sharply restricted; the inspection system prevails. The work of science has been so hampered that, to the minds of some, the leadership in surgery at least is passing over to America and other countries. Even Sir Joseph Lister, one of the great benefactors of his race, is said

to have been compelled to leave England after the passage of the restrictive act of 1876, that he might carry on his investigations in behalf of the saving of human life.

The great safeguard against cruelty in vivisection is not legislation or inspection, but the high professional spirit of doctors and investigators. Taking them as a body, is there any set of men to whom we will more confidently trust our health and lives and those of our children? We find them tender and humane in our homes and in the hospitals. We cannot believe that they become brutes in the laboratory, or that they will countenance brutality. We must believe that their ruling motive in life is humane, the good of humanity; and for the good of humanity the sacrifice of animal life is necessary. We men and woman, citizens, who are not doctors, have a vital interest in the subject. Public opinion is powerful.

We want to make the investigator realize that not a sparrow falls without the Father's care, and that he has no right to sacrifice even one humble animal more than is necessary for the good of man by the advancement of science. We want also to hold him so rigidly to his great and beneficent work that he will not hesitate to sacrifice one animal or a hundred if thereby science is so advanced that even one little child may not perish.

Whether men approve or disapprove of vivisection, all are, I believe, led to their opinions by a spirit of humanity. On that common ground we all stand.

II.—FOR RESTRICTION AND LIMITATION.

BY ALBERT LEFFINGWELL, M.D.,

Author of "The Vivisection Question," Director of the American Humane Association, and of the Vivisection Reform Society.

It was about thirty-five years ago, in the city of New York, that I first saw a painful vivisection, performed by a distinguished physiologist for the purpose of impressing upon the memory of students certain physiological facts. Not long after, fortified by observation and personal experimentation, while engaged in teaching some of the elements of physiology to a class of young men, it occurred to me to avail myself of this method of instruction; and accordingly an invitation was extended to the class, or to any one who cared to be present, to come to my improvised "laboratory" at the close of the school session. To my gratification, every member of my class was present; and though a third of a century has passed, I still remember vividly the enthusiasm which my few experiments seemed to excite. Of course, to use present-day phraseology, "no more pain was inflicted than was

necessary for the success of the experiment." I could honestly affirm, too, that "anesthetics were always used"; but nevertheless the accident of "incomplete anesthesia" occasionally happened during my demonstrations—just as I had seen it occur during the experiments of most accomplished vivisectors. Certainly I felt no compunctions; was I not helping forward, in some slight degree, the cause of Science?

It was a period of intellectual ferment, especially for young men. Brown-Séguard, one of the most cruel vivisectors that ever breathed, visited this country, gave a science talk in the lecture-room of Plymouth Church—where we were all proud to shake his hand—and vivisected a lamb, without anesthetics, before the students of a certain medical school, to illustrate his theories. The great names of Tyndall, Darwin, and Huxley were ever on our lips. The medical student of that day was accustomed to smile with significant contempt at any criticism of vivisection; painful or not, it concerned only the scientist. Possibly my vivisections continued for a year or two, during the winter terms.

But, one afternoon, the President of the Polytechnic Institute chanced to visit my laboratory after I had gone home. There he found some pigeons upon which I had performed, before my class, the celebrated experiment of Flourens on the brain. The next day there was remonstrance, with a request that vivisection immediately cease, and that use of the blackboard take its place. The protests of President Cochran deeply impressed me. Going abroad after graduation in medicine, I saw in Paris and elsewhere experiments so atrociously cruel, carried out with such complete indifference to the causation of agony for mere purposes of demonstrating what everybody knew, that the question of their utility and justification was constantly in mind. Admitting that the experiments helped a student to remember his lesson, was that sufficient to justify the agony they cost? I could not assert it. But everything was not painful. Would it not be possible, without impediment to scientific discovery, without injury to scientific teaching, to draw a line which should distinguish between what is permissible and what should be condemned? The extreme pro-vivisection advocates in this country demand that everything shall be permitted to an advanced student of physiology or a teacher of the science. The anti-vivisectionists, on the other hand, as a rule, insist that all use of the lower animals for scientific purposes be legally forbidden. Each view has the merit of simplicity. Yet there are objections to each. And so, twenty-five years ago, I took the position, ever since maintained, that in this matter of vivisection there should be, not abolition of experimentation, but legal regulation.

Within the limits of a brief paper it is manifestly impossible

to mention all the objections that exist regarding more radical views, or the arguments supporting a middle course. Some of these, however, may be briefly stated.

Let it be conceded, in the first place, that a law abolishing every form of experimentation upon animals, with heavy penalties for its infraction, would do very much to lessen the evils of vivisection, and particularly of painful vivisection. Of course it would not prevent the investigations of science, if any were deemed sufficiently important to warrant defiance of the law; it would simply place vivisection on a par with gambling which, although a crime, is nevertheless practiced to a greater or less extent in every large city. That that abolition would occasion any infinitely great injury to human interests, as is sometimes claimed, is most improbable. All the claims of utility are exaggerated when controversially necessary; I do not believe that the average length of human life would be diminished by an hour if never another painful experiment were made, or if all the drugs of Christendom—barring perhaps half a dozen—were dumped into the sea. The latter event is certainly remote, with human credulity as it is at present; so, too, is the abolition of all animal experimentation. Carried into legal effect, such abolition would prevent all painless demonstrations of scientific facts against which the charge of cruelty could not be urged; it would prevent researches which might be exceedingly useful at times in the detection of crime or the causes of disease. Some day, in the distant future, I believe that the human race will take into consideration its whole duty toward our lower kindred. But to-day, in a world of butchery of animals for food, for sport, for clothing, for outer adornment, and for convenience, to expect that society will prohibit even the *painless* forms of scientific research and let all the rest exist, is to expect the impossible. Nevertheless, an agitation which keeps alive a great ethical question cannot be in vain. The service which the abolitionist rendered to the cause of human freedom is the service which the anti-vivisectionist has rendered the cause of humaneness to the lower forms of life.

The position of the free-vivisection party is also simple. For the vivisector it claims absolute freedom from every form of legal regulation or supervision. If he wishes to perform a painless experiment, well and good; if he desires to perform the most excruciating of agonizing operations; merely to demonstrate some well-known fact—well and good also. "Hands off!" is the cry of the vivisector in America, as well as elsewhere. But there is a difficulty. When a leading professor in a great medical school tells the world that "a brief death by burning would be considered a happy release by a human being undergoing the experi-

ence of some of the animals who slowly die in a laboratory," and that "the time will come when the world will look back to modern vivisection in the name of science as it does now to burning at the stake in the name of religion," does one fancy that absolute freedom to perform such experiments will be conceded without inquiry or protest?

Assuming, then, the desirability of some reform, how may it be effected without resort to absolute prohibition, and without impediment to scientific progress? This is the problem of the hour. Sometimes we are told that vivisection is already most carefully restricted by the vivisectors themselves. Well, here is a fair test. Suppose a European physiologist of eminence, whose cruelty is world-renowned, to come to this country, and to be invited by the director in charge of some American laboratory to repeat an experiment involving the utmost degree of torture—*what would prevent?* Any conceivable experiment may now be performed, provided only that permission be accorded by the director in charge of the laboratory. We cannot depend to-day upon our superior humanity. Some of the worst vivisections recorded in history have been made in an American laboratory within the past ten years. "The law should interfere," said Professor Henry G. Bigelow, M.D., of Harvard Medical School, a few years ago. "There can be no doubt that in this relation there exists a case of cruelty to animals far transcending in its refinement and in its horror anything that has been known in the history of nations." I do not take Dr. Bigelow to mean that every vivisector is cruel, or every laboratory a den of cruelty. He means only this: that where there is no legal restriction *everything is possible, because, somewhere, everything has been done.*

But how far can we go with State control of vivisection without detriment to scientific advancement? Limitations of space prevent anything but the briefest outline of what may be done in the direction of reform.

First. Every laboratory where vivisection may be legally carried on should be licensed and placed under the charge of some responsible director. This certainly can harm no one.

Second. The privilege of vivisection should be accorded only to persons holding a State license, granted only upon some specified examination of qualifications, intellectual and moral.

Third. The director in charge of each place licensed for vivisection should cause to be kept a register, wherein should be recorded (1) the number and species of animals received for experimentation; (2) the number of experiments made, and the species of animals upon which they were performed; (3) the object of each experiment, whether for research or for instruction of students; (4) whether the experiment was painless, and

whether the animal was permitted to recover from the anesthetic. An annual report, giving facts and figures desired, should be required from each laboratory, and published for information of the public.

This is by far the most important condition of any reform. It does nothing but this: it removes the veil of secrecy behind which vivisection is now conducted. What objection to such publicity can possibly be urged by men who have nothing to conceal?

Fourth. No painful vivisection should be permitted simply as a demonstration of well-known facts; and, if at all, only for purposes of great utility and with every precaution against abuse.

Inasmuch as we are told that painful experiments are seldom, if ever, performed nowadays, why should there be any objection to this provision?

Finally comes the important question of laboratory inspection by a salaried officer of the State. To this the most strenuous objections have been urged. Some of these seem to me not unreasonable. If admission to all laboratories were freely accorded to certain classes, such as clergymen, physicians and members of the State Legislature, I am inclined to think that paid inspection could be given up. Others, however, regard something of the sort as of supreme importance. The late Dr. Bigelow, of Harvard Medical School, declared that "every laboratory ought to be open to some supervising legal authority competent to determine that it is conducted from roof to cellar on the humanest principles," in default of which it should be suppressed. Here, then, is opportunity for compromise. If we can once agree that it is desirable to prevent certain abuses of vivisection, there will be no long dispute as to the method.

Thus, briefly, I have attempted to outline the views of those who, despite considerable misunderstanding of their aims, are working simply for the legal regulation of vivisection in the United States.—*Outlook*, New York.

A NOTE ON THE TREATMENT OF SCIATICA.

BY ARTHUR H. BOSTOCK, L.R.C.P. (LOND.), M.R.C.S (ENG.).

WHILE house physician at St. Bartholomew's Hospital, I was much struck with the number of cases of sciatica which were not amenable to ordinary methods of treatment, and the object of this note is to recommend the use of a remedy to which I have now given a thorough trial. It has been of most use in the cases of true neuralgia.

The drug is phenalgin (ammonio-phenylacetamido) dose 5 to

20 grs., and I find that this substance so given has no depressing action on the heart, neither does it expose the patient to the risks incurred in the use of such analgesics as opium and morphia. When a case is in the acute stage the patient should be placed in the recumbent position, and poultices should be applied locally. A commencement should be made with phenalgin in a dose of ten grains, repeated every three hours. After the first twenty-four hours, if the drug is acting, I reduce it to ten grains (four tablets) three times a day, and next day to three tablets (seven and a half grains) three times a day. I then leave a few tablets with the patient to take a dose of ten grains, should the pain show a tendency to recur. In my experience doses consisting of less than three tablets (seven and a half grains) are of no use at all.—*London Lancet*, April 15th, 1904.

JAMAICA, A LAND NEVER TOUCHED BY FROST.

THE BLOOM IS PERPETUAL AND THE NORTHERNER FINDS THE
COUNTRY ONE WHERE CARE NEVER LINGERS.

SIMEON L. HARRELL, who has been to Jamaica on several occasions, has written an entertaining story on that land of perpetual bloom which has attracted a great deal of attention. Mr. Harrell believes that when Americans become more acquainted with the eastern paradise they will flock to the island and drink in its vast delights. Mr. Harrell's story of Jamaica follows:

Nature and history have combined to bring the islands of the Caribbean Archipelago into prominence in the eyes of the world at the present time. Travelers visiting these southern waters have always borne testimony to the tropical beauty of these islands and the lingering mediæval civilization of their towns and cities, but it is only recently that the tide of travel has turned in any volume to these attractive shores.

The war with Spain and subsequent relations with Cuba, Porto Rico and the United States, the recent terrible volcanic devastations in Martinique and neighboring islands of the Lesser Antilles, have awakened much interest in regard to these regions. Northern people have just begun to learn that almost at their doors, at the end of a short and delightful sea voyage, is a veritable "Garden of Eden," where there are no chilling winds or frosts, no blazing, heated days, or dull, hot, enervating nights, either in mid-winter or mid-summer; an almost changeless, ideal climate, with rich tropical fruit, foliage and vegetation, constantly in bloom. Such a spot is Jamaica, the largest and most important of the British West Indian possessions. It is situated

1,588 miles south of Boston, 92 miles south of Cuba, and 100 miles west of Hayti. The island is 144 miles long, varying from 21 to 49 miles in width, containing nearly 6,000 square miles. It lies in the path of the Gulf Stream, which it divides, causing a constant flow of mild, crystal blue waters all around it. It is also directly in the track of that mysterious air current—the Trade Winds—which blow steadily half the year from the north-east, and the other half from the south-west. There also extends nearly the entire length of the island a magnificent range of lofty mountains whose verdure-clad peaks tower from 1,500 to 1,800 feet above the sea, sloping frequently toward the sea on either side into lovely valleys, broad plateaus, covered with fertile, smiling plantations and villages. These geographical conditions all combine to cause this really tropical location to possess almost the entire year the delightful atmosphere known in New England as a “perfect day in perfect June,” the thermometer ranging from 70 to 88 degrees.

Jamaica was discovered by Columbus in 1494, during the second voyage to the new world. In 1500 the first Spanish colony was founded. It remained 160 years in possession of Spain—until 1654—when it was captured by an English expedition sent out by Oliver Cromwell, and has since remained under British control.

There were but few of the original Caribs found on the island when Columbus landed, but during the Spanish and a portion of the English occupation many thousands of negroes were brought here by the brutal slave traders, and were held in bondage until between 1834 and 1838, when Great Britain gradually abolished slavery in its colonial possessions. As freemen the negroes proved lazy and unreliable workers on the plantations, consequently the plan was adopted of bringing in thousands of coolies from India on five-year labor contracts, and they have proved valuable workers for the planters. The soil is so rich, producing so many kinds of nourishing foods, that the island sustains a population of over 700,000, about 10 to 15 per cent. of whom are white.

During the Spanish reign, Jamaica was the headquarters of all the pirates, buccaneers, free-booters, cut-throats and slave traders, who roamed the seas and pillaged the Spanish main. They made Dry Harbor and Port Royal their chief rendezvous. On the 17th of June, 1692, the town was shaken by a tremendous earthquake, whole streets, with their inhabitants and dwellings, also a fine cathedral, being swallowed up by the sea. Many of the ruins are now visible when the waters are quiet, and relics and valuables are frequently brought up by divers.

Kingston, the chief town and seat of government, contains a population of about fifty thousand, with several fine government

buildings, a cathedral, fine stores, well kept hotels and boarding houses, chief of which are the Myrtle Bank and the Constant Spring House, the latter being about four miles out in the suburbs, at the end of an electric road. A steam railway extends from the western part of the island to Montego Bay, and another through a wild and interesting gorge to Port Antonio, which is the largest town located on the north-eastern end of the island, the headquarters and great shipping port of the United Fruit Company, formerly (the Boston Fruit Company) of Boston. This company has done a great deal to develop industry and increase the prosperity of Jamaica. They run, twice each week, their four elegant "Admiral" steamers from Philadelphia and Boston to Port Antonio, besides many freight steamers laden with bananas, oranges and other tropical fruits, the yearly traffic amounting to many million dollars. The company have also built an elegant American style hotel, called the Tichfield House. Owing to the increase of travel to Jamaica, and the deserved popularity of the Tichfield, the United Fruit Company have decided to very largely increase the capacity of the hotel and cottages so as to fully meet all demands for hotel accommodations next season. The views from the broad piazzas of this hotel toward the sea, as well as from the mouth of the harbor, taking in the town of Port Antonio and the lofty Blue mountain, clothed to the top with masses of tropical vegetation, is pronounced by many world-wide travelers as the most beautiful views of earth. A famous poet writes of this scene as follows:

" Could you but view the scenery fair
That now beneath my window lies,
You'd think that Nature lavished there
Her purest waves, her softest skies
To make a heaven for us to sigh in,
For bards to live and saints to die in."

There is a sea coast of nearly 500 miles frequently indented with safe harbors and lined with beautiful hard, white, sandy beaches, inviting you to bathe in the waters of the Caribbean, almost as warm as the air, amid shouts of laughter and play of children, and older ones as well, who bid farewell to cares in this ideal land of rest.

The government has built and maintains about 4,000 miles of smooth, hard, macadamized roads, 900 miles of wide paths, besides about 180 miles of railways. There are walks and drives through the banana plantations, along the rocky coasts, ever resounding to the music of the sea waves, up secluded valleys to places with such romantic names as "Golden Vale," "Hope Gardens" and "Paradise," names not inappropriate. If you have the courage to rise before the sun you can obtain a saddled

horse for 50 cents an hour and climb into the mountains, with views hardly surpassed anywhere for beauty and grandeur. Up through banana groves and forests of cocoa palms you come to fields where sheep and cattle are grazing, down into a valley, then up higher hills you find yourself skirting the edges of steep cliffs half hidden by a profusion of tangled vines. The red hibiscus is intertwined with morning glories and roses and flowers of every hue. Here and there you pass cleared fields where peasants are planting yams or sweet potatoes.

To a northern person the most peculiar feature of the Jamaica climate is the absence of seasons. There seems to be no summer or winter, but one continuous blooming springtime. If any time is more delightful to visit the island than another it is from May to October, and we predict that it will not be long before the fashionable crowd will flock to this lovely isle instead of to Florida in winter, and the mountains and lakes of the north in summer, for here there is always a balmy air of rest for tired nerves and weak invalids. Another strange and almost anomalous feature of Jamaica is the absence of flies, mosquitoes, fogs, malaria and venomous insects and reptiles. In this respect it seems unlike any other tropical spot on earth, and a great improvement over many much vaunted northern summer resorts. For the student of botany, geology, or astronomy, this is indeed an ideal place for study and research. The moon and stars seem nearer and clearer than ever before, while that wonderful constellation, "The Southern Cross," shines in all its glory.

The voyage by sea from Boston of five days each way on the elegant "Admiral" steamers of "The United Fruit Company," is well worth the cost of \$60 for the round trip. If you are longing for rest, or an entirely new and delightful experience, the writer would advise a summer trip to Jamaica—"The Gem of the Caribbean Sea."

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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NO. 5.

Editorials.

THE PASSENGER CAR VENTILATION SYSTEM OF THE PENNSYLVANIA RAILROAD.

WE have received a pamphlet, written by Charles B. Dudley, Ph.D., chemist, and issued by the Pennsylvania Railroad Company, in which a description is given of a system of ventilating passenger coaches. This pamphlet, which also contains five ex-

planatory figures, can be understood by the ordinary reader, as it is free from technical terms.

No claim for originality in the general plan of ventilation is made. The fresh air is taken from the outside of a coach through two hoods, situated just above the lower deck roof, at diagonally opposite corners of the car; thence through the down-takes underneath the hoods to the spaces on each side underneath the car floor, bounded by the floor, the false bottom, the outside sill and nearest intermediate sill. These spaces which are in sections about $14 \times 7\frac{1}{2}$ inches, extend the whole length of the car. From these spaces the air passes up through the floor by means of proper apertures over the heating system and thence out into the aisles of the coach through 14 floor openings, 12×2 inches, and finally escapes from the coach through Globe ventilators, situated on the centre line of the upper deck roof. The means for introducing fresh air into the coach is identical with the one used in the ventilation of ships, in which by windsails and cowls turning towards the wind air is driven between the decks and into the hold. In using the wind in this way the difficulty is to distribute the air so that it shall not cause draughts. This is best done by bending the tubes at right angles, two or three times, so as to lessen the velocity, by enlarging the channel toward the opening in the interior of the vessel, by placing valves to partially close the tubes if necessary, and by screens of wire gauze. In the ventilation system we are considering valves are used in the down-takes and the cowls are screened, while there are three angles between the point where the fresh air enters the hood and the points where it issues into the coach. The heating system consists of pipe radiators. The pipes extend nearly the whole length of the car and are enclosed in a continuous boxing, $5\frac{1}{2} \times 8\frac{1}{2}$ inches, inside dimensions. The heating substance is steam.

This ventilating plan provides for the hourly admission and escape of 60,000 cubic feet of air, while the coach is in motion; when at rest, as at a station, about one-third of that amount would be passed through the coach. The difference between the amount of fresh air supplied, when the coach is at rest and when it is in motion, measures the effect of the movement of the railroad train on the ventilating system in the coach.

From what has been said it appears that this ventilating system depends on the perflating power of the wind, as well as

its aspirating power; it is a combination of the plenum and vacuum methods of ventilation. The hood, when the coach is in motion, acts as an injector and forces air into the coach; the Globe ventilators, of which there are seven to each coach, exercise an aspirating action and exhaust the air above the upper deck level of the coach.

Owing to the small cubic space available in a coach holding 60 passengers, about 66.66 cubic feet, per head, the supplying of 1,000 cubic feet of air per head, without inconveniencing the occupants of the car, is a notable achievement. It is true that 1,000 cubic feet of fresh air per hour is a small allowance for an adult male; but sometimes a coach is not half full, while frequently many of the passengers are women and children, who do not excrete carbonic acid in as large quantities as men, and who, therefore, do not require as large an amount of fresh air per head as men do. Thus, according to Parke, adult males, say 160-pound weight, excrete .7 of a cubic foot of carbonic acid per hour; females, say 120 pounds, .6 of a cubic foot, and children, say 80 pounds, .4 of a cubic foot. According to this calculation adult males should have 3,500 cubic feet of fresh air per hour; females, 3,000 cubic feet; children, 2,000 cubic feet; for a mixed community, 3,000 cubic feet. As already stated this system of ventilation supplies to a car holding 60 passengers 1,000 cubic feet per head per hour, but if there should be 25 passengers the amount of fresh air per head would be 2,400 cubic feet, while if there should be but 20 passengers in the ventilated coach, the ideal 3,000 cubic feet would be forthcoming.

All the air which escapes at the roof must pass through the Globe ventilators, as the ordinary movable deck sash is not used in the ventilated car, the deck sash being purposely made tight and immovable. This feature is said to improve the behavior of the lamps, which used to cause much difficulty, on account of cross draughts between the open deck sash. A further advantage of the fixed deck sash is the absence of cold air currents falling on the heads of passengers.

The heating of the ventilated car, even in cold weather, is satisfactory. Careful observations of temperature were made by a competent person during a trip from Philadelphia to Altoona, a distance of about 237 miles, with the thermometer outside at 2° to 5° Fahr. below zero, most of the distance. It was easy to

keep the thermometer on the bell-cord hanger at 70° and above. It seems evident that more steam will be required for a ventilated coach than for an unventilated one; but the report shows that thus far no serious difficulty has been experienced in heating coaches. A few through trains, having from three to five ventilated cars in them, have been operated with perfect success for over a year.

Large cinders are excluded by the gauze netting over the hoods; small cinders, which pass the gauze netting, are deposited in the conduit between the sills. The location of the hoods at the top of the lower deck is thought to greatly diminish the possibility of dust from the track being a serious source of annoyance. The smoke from the locomotive is usually higher than the hoods, or it is diverted to one side of the train or the other by the wind. The report says: "This leaves only the conditions concomitant to long smoky tunnels to be provided for. The closure of the valves in the down-takes and the rapid change of air in the car by this system, only about four minutes being required to completely replace the air in a car, after it has passed the tunnel, so greatly mitigate this difficulty, that no serious trouble has thus far been experienced from the introduction of objectionable matter from without by the ventilating system."

It is also stated that "Practical experience with this ventilating system on the road has been very gratifying. Passengers, officers and trainmen seem to find the new system such an amelioration of conditions that it is not rare for them to pronounce it a marked success. The tendency to open the windows is very greatly diminished, and the possibility of running with closed doors in the heat of summer is clearly noticeable."

At the present time this system of ventilation is in use on 800 cars of the Pennsylvania lines east of Pittsburg and Erie. It is being applied to all new cars as they are built, and to the older cars in the equipment, as fast as conditions will warrant. It has not yet been applied to a sleeping car.

We feel pleasure in giving editorial prominence to the system of car ventilation which is here briefly described, and we think that the laboratory force of the Pennsylvania Railroad and their associates of the mechanical department deserve credit for their very scientific and practical method of improving the ventilation of passenger coaches.

J. J. C.

WHAT SHOULD BE THE CONDUCT OF SANITARIANS TOWARDS PATIENTS WITH VENEREAL DISEASES ?

WRITING on the prevention of venereal diseases, a physician of Western Ontario expresses the following views: "Medical practitioners are liable to fine and punishment if they neglect to promptly report mumps, measles and whooping cough or other simple diseases, affecting defenceless, innocent babes and children, while medical practitioners not only need not, but even dare not, report the moral imbecile, covered with syphilitic sores or saturated with gonorrhoeal discharges, whose foul presence obtrudes itself everywhere—the hotels, the Pullman, the theatre, church, ball, or even private homes." This syphilitic or gonorrhoeal imbecile knows his security, and the medical practitioner, instead of properly and safely isolating the poisonous wretch, is compelled to appear disinterested and meet him anywhere and everywhere just as if the social leper were not the greatest menace to public health."

The respected writer of this letter does not indicate the *modus operandi* of the quarantine which he suggests. No person will deny that the isolation of gonorrhoeal patients is a desirable thing, but the method of doing it adequately is as yet unknown. Probably the principal reasons for the actual condition of public opinion on this question are that the disease is common and thought to be of little moment; while, at the same time, people of both sexes, who have this disease, are most anxious to keep their unhappy possession a profound secret. If a physician were legally bound to report his cases of gonorrhoea to the M. H. O., and were to comply with the law, his practice among the "moral lepers" would soon reach the vanishing point.

But, for argument's sake, let us suppose that every physician and druggist in Ontario were to unite in obeying a law which would call for the reporting of gonorrhoea. Unless it were made an absolute condition that every gonorrhoeal patient would be compelled to retire to an hospital and remain interned until cured, the reporting of some cases would not extinguish gonorrhoea.

It would be certainly in the interest of the public health if gonorrhoeal cases were segregated in an hospital. It would also

be in the interest of the patients themselves. Treated by modern methods uncomplicated cases would be cured in, let us say, eight weeks and the complications which sometimes arise from imperfect or unsafe methods of treatment would not occur at all. The required treatment would be more thoroughly carried out than it can be in a private house, or even at a physician's office; the patient's diet could be supervised, and, in all probability, the disease could be arrested in a period of time less than what has been observed in cases of this disease occurring in private practice.

Instruction could also be given the patient, verbally, or by leaflet, as to the dangers of gonorrhoea to other persons, and an educational campaign could be tried, in order to prevent its spread to innocent persons. It is quite probable, likewise, that the dread of quarantine would powerfully assist in controlling the behests of lust, so much, indeed, as to induce even lechers "to assume a virtue if they have it not."

The quarantine of syphilis would be much more difficult. Instead of a quarantine of eight weeks the syphilitic patient would have to be interned for one or several years. Should a syphilitic patient be quarantined during the primary, as well as the secondary stage of the disease? Prior to answering this question we revert to the already quoted letter of the Ontario physician. He writes: "A patient comes to my office at 6 p.m., from a local bank. He is in a most foul condition from syphilitic disease. At 11 o'clock the same evening I arrive at a society ball, and imagine my surprise to find my recent patient, the Johnny two-step from the bank, quite the lion among pure and innocent young girls and apparently sane matrons."

To this we say: The bank clerk could communicate primary syphilis by the sexual act, but that method of contagion would be unlikely in the case of decent women. If his disease were in the secondary stage he would be more dangerous to the opposite sex, and he should be debarred from flirting with pure and innocent girls until his disease is cured. We have treated two cases in which chancre of the lip was communicated to innocent girls by men who had mucous patches of the mouth, and the literature of syphilis contains many similar cases. Men or women exhibiting signs of secondary syphilis, viz., mucous patches or condylomata of the mouth or anus, and syphilitic eruptions of the

skin, should be quarantined. Neither should children exhibiting the well-known signs of hereditary syphilis be allowed to associate with healthy children until their disease has been cured.

Theoretically these counsels as to gonorrhœa and syphilis would be the part of wisdom; practically we do not think they could be carried out. Vanity, conceit and self-interest would conspire to defeat them. The course advised at the Congress of Venereal Diseases, held at Frankfort, Germany, during the present year seems preferable. At that congress it was determined to send to every physician a leaflet or slip, in which reference is made to the precautions to be taken by venereal patients in order to prevent the extension of their disease to other persons.

During the present year, also, a committee of three has been appointed by the President of the Conference of State and Provincial Boards of Health "To prepare a leaflet that would be acceptable to physicians to give to their patients, setting forth the precautions to be taken by one suffering from a venereal disease, to prevent its communication to others, and to make such other suggestions as it may deem proper," etc.

A quiet, persistent campaign of an educational character, conducted by a physician with an auditory of one, will accomplish a good deal in keeping down venereal diseases, though it would be less sensational than notification and quarantine. We quite agree, however, with the contention of our confrere in the far west of Ontario, that it is galling to a physician's sense of justice to see a man with gonorrhœa or syphilis enjoying his untrammelled liberty, while a patient with measles must be quarantined.

J. J. C.

CAWTHRA MULOCK'S GIFT.

THE trustees of the Toronto General Hospital have accepted the generous offer of Mr. Cawthra Mulock to erect an out-patient building at a cost of \$100,000. Mr. Mulock's letter to Mr. J. W. Flavelle, Chairman of the Board of Trustees, read as follows:

"With reference to the various conversations regarding the present position of the Toronto General Hospital, it has been made evident that, while the present buildings have in the past served the purpose for which they were intended, they have now become entirely inadequate to perform the duties required of a great hospital in a growing city like Toronto.

"To me it appears that the most urgent need at the moment, however, is an out-patient building, in which those who are too poor to pay for hospital service can be properly treated, and in which the clinical teaching so necessary for the School of Medicine in connection with the university can be carried on to the satisfaction of the faculty of medicine.

"In the hope that a general plan for the gradual rebuilding of the whole hospital establishment will be the eventual outcome, I am prepared to build, equip and furnish at an expense of \$100,000 a separate building or wing for such an out-patient department. I do not desire to make any conditions which would embarrass the Board of Trustees of the Toronto General Hospital, but I shall hope that the effect of my gift will be to produce the two results already suggested, namely, the free services to the poor of an out-patient department, and the provision of satisfactory clinical teaching for the University School of Medicine."

Upon the question as to the best site for the proposed new building medical opinion is divided. A number of the profession feel that, as in the big cities of England and the United States, such buildings are usually situated as close as possible to the centre of population, a central site somewhere near old St. John's Ward should be chosen, and they point out that in addition to meeting the wants of the poor it would better serve the purpose of clinical teaching for the University School of Medicine.

Others think that the new building should adjoin the present Toronto General Hospital if it is to be utilized for clinical teaching. They contend that all students are more or less identified with hospital work, and to have the new building close at hand would be a great convenience.

As far as we are concerned, we feel that the trustees should consent to "go easy" in the matter, and rather delay a little now than choose the site too hastily, only to regret the same after the foundation is laid. If we are not mistaken, some important news as to increased hospital accommodation in Toronto is forthcoming very soon, and we would not be at all surprised if before the next twelve months elapse, a still further building appears, in the Queen's Park in the shape of a hospital in direct connection with, and controlled entirely by, the Medical Faculty of Toronto University.

W. A. Y.

A NEW PRISON INSPECTOR.

THE resignation of Dr. T. F. Chamberlain, Inspector of Prisons and Public Charities, was recently accepted by the Provincial Secretary's Department, to take effect October 1st. Dr. Chamberlain's health during the past six months has been such as to necessitate his taking this step. He has been succeeded by Dr. R. W. Bruce-Smith, up till recently assistant physician at the Asylum for the Insane at Brockville.

Dr. Smith formerly practised in Seaforth, and a few years ago accepted the position of President of the Ontario Medical Association. Prior to going to Brockville, he was assistant physician at the Hamilton Asylum. Dr. Smith is highly thought of by the profession, and we heartily congratulate him upon this deserved recognition of his executive ability, and feel certain that he will perform his duties to the eminent satisfaction of not only the Ontario Government, but those with whom he will be brought into contact.

Dr. J. C. Mitchell, of the Toronto Asylum staff, has been appointed assistant physician at Brockville, to succeed Dr. Smith, and will occupy that post till the new buildings at Woodstock are ready next year; and Dr. Harris, at present relieving officer for the public institutions, has been appointed to the position vacated by Dr. Mitchell.

Dr. Chamberlain graduated M.D. at Queen's University in 1862, and practised his profession at Morrisburg. He held a variety of municipal and other offices, including the Reeveship of Morrisburg and the Wardenship of Stormont, Dundas and Glengarry. He was also Superintendent of Public Schools. He sat in the Ontario Legislature in the Liberal interest for Dundas from 1886 to 1888, since which time the constituency has been represented by Mr. J. P. Whitney. He was appointed Inspector of Prisons and Public Charities in September, 1889. During the past summer Dr. Chamberlain was critically ill, and, although he has considerably improved, he is still far from well, and contemplates spending the winter in the South.

W. A. Y.

EDITORIAL NOTES.

WE regret exceedingly not, in this instance, being able to keep faith with our readers and give them the benefit this month of Mr. Mayo Robson's address at the Vancouver meeting of the Canadian Medical Association, the manuscript arriving too late.

The Explanation of Some Marvelous Cures, which are Advertised in the Papers.—In an editorial note which appeared in the *New York Medical Journal* and *Philadelphia Medical Journal*, August 27th, 1904, we observe an Associated Press communication, showing one of the methods by which the patent medicine manufacturers obtain their glowing testimonials:

Remarkable testimony has been obtained by the post office department as to the ways in which testimonials are obtained by some of the big concerns engaged in this business. One large firm admitted, that it had agents out seeking persons who had formerly occupied prominent positions in the community, but had suffered financial reverses and were harassed by debts they were unable to settle. The agents would obtain possession of the unpaid accounts, and would then apply pressure to the unfortunate victims, demanding immediate payment in full. Finally, after long persecution, the desperate victim would be invited or commanded to call at the office of an attorney, where he would be given to understand, that, if he would sign and swear to a testimonial, a receipt in full for the claims against him would be given. This seems incredible, but the facts are now on file in the records of the post office.

The cruelest part of the joke is that the article in the Associated Press communication is headed "Methods of Medical Men."

Auto-Intoxication in Nervous Diseases.—Roger alludes, in his book, "The Introduction to the Study of Medicine," to experiments which show the effects of auto-intoxication in cases of mental diseases. Generally in these cases the toxicity of the urine is increased, and sometimes it shows particular characters, relating to the state of the patients. Brugia holds that the urine of patients suffering from mental excitement produces convulsions, while the urine of others, who suffer from mental depression, produces lowness of spirits and a considerable reduction in temperature. In studying a paroxysmal disease, epilepsy, Dr. Féré shows that the urine of an epileptic before the seizure is very toxic, and causes convulsions if injected into rabbits, but that after the attack, the urine is not toxic, and shows little tendency to cause convulsions. Mairet and Ardin Delteil show that the toxicity of the perspiration collected during and immediately after

an epileptic seizure is most marked. Sajous says, Vol. I., p. 777: "Some cases of acute mania, for instance, may require stimulation of the adrenal system, simply because the engorgement of the neurons may find its cause, not in an exogenous poison, but in accumulation of physiological toxics, which, as in the case of epilepsy, tetanus, etc., give rise to sudden exacerbations of adrenal activity, *i.e.*, to explosions of functional activity calculated to rid the organism of the morbid agencies by a process of active combustion." As Féré's experiments seem to show that idiopathic epilepsy is caused by auto-intoxication, there is a certain resemblance between epilepsy and uremia. In the former, however, the toxic agent is produced at variable intervals, and the quantity or continuance of its production are not sufficient to destroy life, offering, in this respect, a strong contrast to uremia. If this pathological view be correct, knowledge of the nature and source of the toxic agent which produces the convulsive seizure in epilepsy may be acquired, and its elimination from the organism might, as we may hope, render this disease controllable.

Clinical Examination of the Sputa in Children.—The difficulty of obtaining sputa from young children is in one sense a blessing, as they do not contribute to the spitting nuisance. Neither do they spread pneumonia or pulmonary consumption by expectoration. As in suspected cases of tuberculosis, the bacteriologic test is of paramount importance, and as a physician, when treating a child for broncho-pneumonia, may wish to strengthen his diagnosis by a bacteriological test of the sputum, a simple and efficient means of obtaining the sputum is of the first practical importance. A practice which obtains in the French hospitals consists in covering the finger with gauze and passing it into the aperture of the child's glottis. The irritation thus excited causes the little patient to cough, and the mucus expectorated is caught on the gauze and subsequently examined.

Barbers' Shops and Contagious Skin Diseases.—An English surgeon writing to the *British Medical Journal*, August 27th, 1904, claims that he contracted impetigo contagiosa after a shave at one of the leading shops in a suburb of London. He says, that for ten years he had scarcely entered a hairdresser's shop,

preferring to shave himself and submit his hair to the amateur ministrations of his wife. But as he was dining out, and was pressed for time, in a luckless hour he went to a barber's shop, and was shaved. Five days afterwards a pimple developed, and impetigo subsequently developed. He was obliged to have a locum tenens, nearly poisoned himself with drastic mercurial ointments, and generally felt a wreck. That shave, he says, will cost him \$250. In his opinion, compulsory antiseptic precautions ought to be enforced in barbers' shops. When one considers the various diseased and unclean conditions existing on the faces of the patrons of a shaving parlor, one is struck with wonder that more of them are not inoculated with virulent germs, more particularly if the barber uses a dull razor, shaves off a bit of epidermis, or decapitates a pimple. The sterilization of the barber's razor with boiling water for thirty seconds after shaving a customer, and the washing of his own hands, before passing to another customer, should be obligatory. His shaving brush should be placed every night in a closed box, in which it is exposed to the vapor of formalin. If gentlemen of cleanly habits believe that such precautions are necessary, they should not hesitate to ask for them. However, a surgeon, of all men, should be able to shave himself. If he will not do it, the teachings of his profession require, that the razor, shaving brush and soap, used on him by the barber, should be free from infection.

Red Light in the Treatment of Smallpox.—The treatment of smallpox by red light has been described in glowing terms in Scandinavian medical journals, and optimistic views have been expressed in Europe and America as to the curative influence of this agent. In London, as we learn through the *Medical Press*, August 17th, 1904, this method of treating smallpox has been tested and found wanting. Dr. Ricketts, the Medical Superintendent of Joyce Green Smallpox Hospital, made the test and published his experience in the Annual Report of the Metropolitan Asylums Board. A small ward was set apart for the purpose, the windows being covered with ruby fabric, and the ward doors hung with thick curtains of Turkey twill. Illumination was supplied by a red lamp. In this room one or two patients were placed at a time, all of whom were subject to careful selection. Those chosen were in the early papular stage of attacks which

seemed likely to run an ordinary suppurative course. In all some twelve cases were treated, in none of which was the development of the stages of the papules in any way different from what might have been naturally expected. Three patients died and several were badly pitted. In Dr. Ricketts' opinion the red light treatment for smallpox is a dead failure. Smallpox has been successfully treated with red light by Drs. Krohn, Mygind, Peronnet, Abel, Backmann, and others. Dr. Ricketts may, inadvertently, have neglected to observe some important minutiae of Finsen's treatment, total exclusion of the chemical rays of light being the main feature.

Mercurial Injections in Syphilis.—A series of articles on the treatment of syphilis appeared in the July number of the *London Practitioner*. In what may be regarded as the most important paper in the series, Louis Wickham says that the hypodermic method has the great advantage of sparing the stomach. It favors the more direct penetration of the mercury into the blood, a more complete utilization of the dose administered, and permits of exact dosage. If the state of the kidneys is carefully watched and the cleanliness of the mouth maintained, large doses of mercury can be given without causing inconvenience. The initial dose should be small, and then raised gradually, but persistently, as long as no reaction ensues. It is best to raise the dosage to a considerable amount rather than to use a moderate average dose, which may prove quite insufficient in particular cases. It must be remembered that an attack of syphilis which at first appears benign may develop into a grave case. In cases of gravity it is natural to employ large doses, but every case must be looked on as potentially grave, and treated as such. Collateral remedial measures, such as tonics and local dressings, must be carried out; in some cases such measures assume a dominant position. In cases where the weakness of the patient is marked, injections of physiologic serum, apart from the daily injections of mercury, are excellent. The best site for the injection is the buttock, at the point of intersection of two lines, one horizontal line passing through the junction of the upper quarter with the lower three-quarters of the buttock, the other a vertical line through the junction of the inner third with the outer two-thirds of the region. The injections can be made in an area

having a radius of 2 c.m., the point of intersection of the two lines being its centre. Because of the irritation produced by salts of mercury, the injections are almost always intramuscular. In those subjects in whom gluteal, intramuscular injections are not well borne, and in whom it may be necessary to attack the disease vigorously, the intravenous route may be chosen. The injections may be made at the bend of the elbow into the cephalic or basilic nerve on either side. The usual antiseptic precautions must be observed. The salt used is a cyanide of mercury, the largest dose hitherto employed being 0.01 gram daily. J. J. C.

PERSONAL.

DR. A. A. MACDONALD has purchased No. 341 Bloor St. west, and will remove there immediately.

We congratulate Drs. G. B. Smith and W. F. Bryans of Toronto, on the result of the suit entered against them by one Mrs. Stickle.

DR. N. H. BEEMER, of Mimico Asylum, is to be congratulated upon the marriage of his daughter, three weeks ago, to a New York gentleman.

DR. GEO. ELLIOTT, General Secretary of the Canadian Medical Association, removed two weeks or more ago from the corner of John and Nelson Streets to his new home, 203 Beverley Street (corner of Cecil Street).

News of the Month.

OPENING LECTURE OF THE MEDICAL FACULTY OF TORONTO UNIVERSITY.

PROFESSOR J. ALGERNON TEMPLE gave the opening lecture before the Faculty and students in medicine of the University of Toronto, on the evening of October 5th, in the gymnasium building. He made an appeal for private beneficence and a more generous public support of medical and scientific education.

In opening he said that the experience of the past year had demonstrated beyond peradventure the wisdom of federation. The Faculty of Trinity became convinced that it was no longer possible to support by private enterprise a medical school that could do the work demanded for the present time. They saw that medical science must rely on the hope of both Government and private assistance.

Dr. Temple continued: If this country is to retain its prowess the Government must recognize more fully the commercial value of scientific education and scientific work; and the makers of wealth must value more highly those institutions of learning to which is due in a large measure their success in the amassing of money. It now remains for the Government to establish chairs in bacteriology, hygiene and pathology. Public opinion in Canada is scarcely what it should be in regard to education, and it is, therefore, hard to arouse the interest of public men on this question. The emphasis of public opinion in Canada cannot be said to be placed on things of the intellect. The man who is the best shot or the champion sculler receives marked attention. Among the people of the United States there is an intense belief in education. There is an amazing liberality on the part of their public men. Canadians should have more enthusiasm for culture and education, for the reason that the emphasis given to them is a fair criterion of a country's civilization. When the mass of the people are more anxious for quacks and patent medicines than for scientific treatment the condition is not satisfactory. The public press teems with disgusting advertisements that are a disgrace to the public prints. I can't understand why they are admitted.

No other profession is so deeply concerned with the life of the people as the medical profession. It is, therefore, important

that the standard be kept high. I hope that the recent generous gift of Mr. Cawthra Mulock will stimulate other citizens to emulate his example. I trust, concluded Dr. Temple, he will live long enough to see the splendid results of his gift.

Dean Reeve presided, President Loudon, who was to have been in the chair, having been seized with a sudden indisposition shortly after his arrival. He was compelled to go home. At a late hour he was reported as better.

Dr. McPhedran announced that as a mark of approval of the single-mindedness of Dean Reeve the Faculty had decided to continue the Dean Reeve scholarship for research, and through the generosity of Mr. P. C. Larkin they were enabled to do so. The announcement was received with loud applause. The Dean replied briefly and with feeling.

Dr. Primrose announced that provision had been made for instruction in experimental physics for first year men, and for laboratory work in the fifth year.

The Dean made the interesting announcement that 134 had registered in the first year, and that the whole registration exceeded the record of any previous year.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

THE Thirtieth Annual Meeting of the above Association was held in Cincinnati, O., on the 11th to the 13th ult., when the following papers were read:

Address of the President, Hugh T. Patrick.

Address in Medicine. By C. Travis Drennen, Hot Springs, Ark.

Address in Surgery. By W. J. Mayo, Rochester, Minn.

Splenless Men: Report of Two Successful Cases of Splenectomy. By J. H. Carstens, Detroit.

Reflection Upon the Origin of Hallucinations of Sight and Hearing. By Charles J. Aldrich, Cleveland, O.

Prevention of Conception and the Evils Thereof. By William F. Barclay, Pittsburg, Pa.

Relative Dangers of Craniotomy and Cesarian Section. By James M. Barnhill, Columbus, O.

Treatment of Diabetes Mellitus. By R. Alexander Bate, Louisville, Ky.

Prognosis. By John M. Batten, Downingtown, Pa.

Foreign Bodies in the Esophagus. By Carl E. Black, Jacksonville, Ill.

Acute Anterior Poliomyelitis. By Sanger Brown, Chicago.

A Case of Bilateral Tic Douloureux Treated by Intra- and Extra-Cranial Neurectomy. By W. O. Bullock, Lexington, Ky.

Pathologic Changes Resulting from Prostatic Enlargement. By Charles E. Burnett, Fort Wayne, Ind.

Treatment of Tubercular Pleuritis. By James G. Burroughs, Asheville, N.C.

Pseudo-Membranous Croup. By Robert E. Carlton, Latonia, Ky.

Cranial Injuries. By Shelby C. Carson, Greensboro', Ala.

Echinacea. By C. S. Chamberlin, Cincinnati, Ohio.

The Value of the X-Ray to the General Practitioner. By James E. Coleman, Canton, Ill.

Report of Some Unusual Surgical Cases. By A. H. Cordier, Kansas City, Mo.

Loss of Consciousness and Automatism in Inebriety. By Thomas D. Crothers, Hartford, Conn.

The Relation of Trauma to Hernia. By Daniel N. Eisen-drath, Chicago, Ill.

The Typic (Anatomic) Operation for the Radical Cure of Oblique Inguinal Hernia. By Alex. Hugh Ferguson, Chicago, Ill.

Two Factors in the Pelvic Diseases of Women: Their Prevalence, Result and Prevention. By J. H. Firestone, Freeport, Ill.

A Plea for Better Feeding of the Patients in our State Hospitals for the Insane. By W. B. Fletcher, Indianapolis, Ind.

Perilous Calms of Appendicitis. By Robert Wallace Hardon, Chicago, Ill.

Prophylaxis of Appendicitis. By William M. Harsha, Chicago, Ill.

Factitious Eruptions. By M. L. Heidingsfeld, Cincinnati, Ohio.

Infectious Diseases: Their Communicability, Quarantine and Prevention. By Henry D. Holton, Battleboro, Vt.

Formalin in the Treatment of Amebic Dysentery and Hundred Affections. By John L. Jelks, Memphis, Tenn.

Report of a Case of Brain Abscess of Otic Origin, with Some Observations. By George F. Keiper, LaFayette, Ind.

Report of Two Cases of Amputation of Both Legs; Recovery. By F. D. Kendall, Columbia, S. C.

Report of Two Cases of Pancreatic Cyst. By VanBuren Knott, Sioux City, Iowa.

Extra-Uterine Pregnancy. By Florus F. Lawrence, Columbus, O.

Report on Operative Work through the Cystoscope. By Bransford Lewis, St. Louis, Mo.

- Insanity in Relation to Obstetrics and Gynecology. By Henry F. Lewis, Chicago, Ill.
- A Contribution to the Plastic Surgery of the Urethra. By G. Frank Lydston, Chicago, Ill.
- Ectopic Gestation. By H. B. R. McCall, Kansas City, Mo.
- The Mamma: Its Physiological Purposes and Finer Anatomy. By Thomas H. Manley, New York, N.Y.
- Radium: Its Therapeutic Value. By M. Metzzenbaum, Cleveland, O.
- Protection of the Axillary Nerves and Vessels after Dissection of the Axillary Space. By J. B. Murphy, Chicago, Ill.
- The Obstetric Significance of the Transverse Diameter of the Pelvis. By Joseph B. DeLee, Chicago, Ill.
- Hereditary Predisposition to Tuberculosis. By Charles Louis Mix, Chicago, Ill.
- A Clinical Study of the Mental Disorders of Adolescence. By Frank C. Norbury, Jacksonville, Ill.
- Hospital Construction in American Cities. By A. J. Ochsner, Chicago, Ill.
- The Treatment of the Morphine Habit. By Curran Pope, Louisville, Ky.
- What Shall be Done with the Criminal Insane? By John Punton, Kansas City, Mo.
- Strictures of the Urethra. By A. Ravogli, Cincinnati, O.
- Foreign Bodies in the Cornea. By Dudley S. Reynolds, Louisville, Ky.
- The Transverse Fascial Incision for Operations in the Pelvis, with Report of Cases. By Emil Reis, Chicago, Ill.
- Why So Many Errors in the Diagnosis of Graves Disease? By J. H. Stealy, Freeport, Ill.
- Association and Antagonism of Diseases. By Albert E. Sterne, Indianapolis, Ind.
- Suppuration of Nasal Accessory Sinuses; Symptoms and Treatment. By J. A. Stucky, Lexington, Ky.
- The Recognition of Important Eye Lesions by the Practitioner. By George F. Suker, Akron, O.
- Valvotomy *versus* the Clip for Cure of Obstipation. By Sterling B. Taylor, Columbus, O.
- Internal Hemorrhoids and Their Treatment. By Wells Teachnor, Columbus, O.
- A Clinical Experience. By W. W. Vinmedge, La Fayette, Ind.
- Needles, Ligatures and Sutures; Their Uses and Abuses. By H. O. Walker, Detroit, Mich.
- The Combined Method in the Arrest and Cure of Tuberculosis. By H. B. Weaver, Asheville, N.C.

Tenotomy of the Tendo Achillis in Partial Amputations of the Foot in Compound, Comminuted Fractures of the Tibia and Fibula. By J. R. Webster, Chicago, Ill.

Subjective *versus* Objective Requirements in Surgery. By Otho B. Will, Peoria, Ill.

Radical Cure of Hernia. By Hal C. Wyman, Detroit, Mich.

Acute Intestinal Surgery, with Remarks on Technic. By John Young Brown, St. Louis.

ITEMS OF INTEREST.

The American Medical Association.—The date set for the next session of the American Medical Association is July 11-14, 1905.

University Convocation Hall.—It is reported that the tenders for the erection of the University Convocation Hall call for an expenditure of \$174,000. The amount provided was \$100,000. It is not yet decided whether the plans will be changed or an effort made to collect more funds.

Three Hundred Physicians will be needed in Panama to preserve the health of the workmen on the isthmus. This is the preliminary estimate made by Colonel W. C. Gorgas, the chief sanitary officer, who sailed from New York on Tuesday to assume charge of the sanitary works there. These physicians, it is expected, will be drawn from civilian ranks, though quite a number of government surgeons will have the higher posts.—*Med. Age.*

An Unfortunate Error.—On page lxxx of our October issue we published the clinical aspects of a case of amenorrhea, that had recently come under the notice of Dr. M. T. Runyon, of Oberlin, Ohio, which he treated with mechanical vibratory stimulation. Through an error on the part of our printers, but part of the abstract appeared. The instrument used was the "Chattanooga" Vibrator, as made by the Vibrator Instrument Co., of Chattanooga, Tenn. If our readers will kindly refer to the report they will see the method of treatment adopted by Dr. Runyon, and the results, viz., that menstruation became again established normally, thus proving the value of mechanical vibratory stimulation. We tender to Dr. Runyon our regrets for the unintentional mistake and seeming carelessness.

Toronto Medical Society.—An "open" meeting of this society was held in the new medical buildings on October 6th at 8.30 p.m., and was attended by a large number of the profession. The president's (Dr. J. Hunter) address was entitled "The Medical Society." Dr. W. J. Wilson's paper on "The Treatment of Typhoid," which will appear in our next issue, was discussed by Drs. Thistle, Fotheringham, W. P. Caven and others. Dr. A. A. Macdonald gave a talk on his visit to the Canadian Medical Association's meeting in Vancouver, B.C. A most enjoyable evening was spent, and we trust that, under Dr. Hunter's guidance, the Toronto Medical Society will enter upon a new era of success.

Toronto University Senate Elections.—The entire ticket which we supported for appointment to the Senate of Toronto University at the elections held last month received the support of the electors throughout. The graduates in medicine elected the following, who received from a total poll of 1,189 votes the number indicated: Dr. Bingham, Toronto, 812; Professor I. H. Cameron, 799; Dr. Adam Wright, 789; Prof. J. Algernon Temple, 774. Of these, Dr. Bingham and Dr. Temple are new members. Dr. W. H. B. Aikins, 712, and Dr. James M. MacCallum, 356, are defeated candidates. The two latter had previously served on the Senate. Though Dr. MacCallum had announced his intention of not running at all, his announcement was received, however, by the Registrar too late, and therefore largely accounts for the small vote polled in his behalf.

Radio-active Wool.—A new method of employing radium in medicine has been described by E. S. London, a Russian physician, which consists of using cotton-wool which has been submitted to the reaction of radium emanation. The result of a series of experiments seems to justify the conclusion that the effects of the radium emanation and of the direct action of the radium are the same, consisting in an inflammation of the skin and a destruction of protoplasm. Wool so treated, which is convenient for easy distribution over the body, when packed in hermetically sealed jars or other containing vessels, loses its radioactivity very slowly, and can be sent to any distance desired. From a few milligrams of radium a large quantity of wool may be prepared, and thus widely extend the use of a small amount of radium, whose cost is so great as to interfere with its widespread use. Radio-active wool, therefore, may become a stock pharmaceutical preparation, but it still remains for the medical profession to determine its therapeutic value.

Extensive Counterfeiting in Proprietary Medicines in New York.—After immense outlay financially and a tremendous amount of work by the most astute detectives in the country, who were employed by them, The Farbenfabriken Co., of Elberfeld (New York City), have succeeded in running down the worst gang of criminals in the United States, who have for a long period been manufacturing (!) the pharmaceutical products of this well-known house and putting them upon the market through some fourth-rate druggists, under the names of phenacetin, sulphonal, trional, etc. The manufacturers have been on the track of the gang for a long period, but never succeeded in running them to earth till the middle of last month. They sold those medicines under false labels at ruinous prices and have done immense injury to the originators, who are well known as manufacturers of preparations of merit. We are pleased to know that the counterfeiters have been caught red-handed, and trust that long terms of imprisonment will be promptly meted out to them.

Rockefeller Institute Plans.—Plans have been filed for the new laboratory building to be erected on Exterior Street, east of Avenue A, for the Rockefeller Institute of Medical Research, of which Dr. William H. Welch, of Johns Hopkins University, is President, and Dr. S. Flexner, Resident Director. It is to be a five-storey edifice, 136 x 60, with a facade of lime-stone and brick. It will be decorated with pilasters of brick, and have a porch entrance flanked with decorative columns for the support of electric lights. The first floor will be an assembly hall, with a library and study and directors' room. The upper floors will contain large general and special laboratories and research rooms. The fifth will have a dining hall and living quarters, and the roof a special operating room and quarters for the animals under examination. Adjoining the main building will be a two-storey building for the animals used by the doctors, and power-house. The cost of the buildings is estimated at \$325,000.—*Med. News.*

New Surgical Building Dedicated.—The new surgical building at the Johns Hopkins Hospital will be dedicated October 5th. The programme will consist of addresses by several prominent American and foreign physicians, and a large number of eminent medical men, including those gathered at St. Louis this month, will be invited to attend. After dedication it will be inspected and a luncheon will be served. In the afternoon a bronze tablet erected to the memory of Dr. Jesse W. Lazear, who lost his life from yellow fever in Cuba while investigating that disease there in 1900, will be dedicated in one of the amphitheatres. The building cost \$150,000, is of brick and four stories high. Sanita-

tion and ventilation are important features. All the floors are of tiles, every room and hallway used by patients being also wainscotted with glazed white tiles. The stairways are of marble and iron, and there are toilet rooms and baths on each floor. A surgical amphitheatre, forty feet high, also has extensive tiling, marble work and a wide hall with lights composed entirely of wired glass. There are a number of consultation rooms. On the first floor will be emergency rooms for accident cases, minor operation rooms and the orthopedic department. Two large vaults of brick and cement are provided for surgical records.—*Jour. A. M. A.*

Dr. Charles R. Dickson was at St. Louis, September 10th to 20th, returning by Chicago. While in St. Louis he took part in the International Electrical Congress, held in the Coliseum, in connection with the Louisiana Purchase Exposition, being a delegate from the American Electro-Therapeutic Association, and attended the annual meeting of the latter body also, at the Inside Inn. Before a joint session of the Congress and Association he read by invitation a paper on "Some Observations upon the Treatment of Lupus Vulgaris by Phototherapy, Radiotherapy and Otherwise," and at the Association he presented a paper, entitled "Some Aspects of Phototherapy," and was elected a member of the Executive Council for the fifth time. Both meetings were most successful, and very enjoyable. Among the Congress festivities held on the World's Fair Grounds were a reception by the St. Louis Committee at the New York State Building, a reception by the Associazione Elettrotecnica Italiana at the Italian National Pavilion, a luncheon tendered by the Engineers' Club at the Palace of Electricity, followed by participation in the Electricity Day Parade of the grounds in autos, a reception by electrical exhibitors in the Palace of Electricity with special electrical effects in the decorations of the building, grand basin and electric launches for the occasion, a reception by the Commissioner-General of Great Britain and Mrs. Watson at the British National Pavilion, a banquet in honor of foreign members of the Congress at the German National Pavilion, and many lesser, though not less enjoyable functions. Delegates were tendered free use of telegraph and telephones, including long distance services, and all visitors were made to feel that for the time they practically owned the electrical department of the Fair. In addition, a reception was tendered the members of the Association at the Missouri State Building. It was a never-to-be-forgotten week of constant activity and enjoyment. The attendance of so many distinguished foreign delegates lent an added charm.

The American Medical Society for the Study of Alcohol and Other Narcotics was organized June 8, 1904, by the union of the American Association for the Study of Inebriety and the Medical Temperance Association. Both of these societies are composed of physicians interested in the study and treatment of inebriety and the physiological nature and action of alcohol or narcotics in health and disease. The first society was organized in 1870, and has published five volumes of transactions and twenty-seven yearly volumes of the *Quarterly Journal of Inebriety*, the organ of the association. The second society began in 1891, and has issued three volumes of transactions and for seven years published a *Quarterly Bulletin*, containing the papers read at its meetings. The special object of the union of the two societies is to create greater interest among physicians to study one of the greatest evils of modern times. Its plan of work is to encourage and promote more exact scientific studies of the nature and effects of alcohol in health and disease, particularly of its etiological, physiological and therapeutic relations. Second, to secure a more accurate investigation of the diseases associated or following from the use of alcohol and narcotics. Third, to correct the present empirical treatment of these diseases by secret drugs and so-called specifics, and to secure legislation, prohibiting the sale of nostrums claiming to be absolute cures, containing dangerous poisons. Fourth, to encourage special legislation for the care, control and medical treatment of spirit and drug takers. The alcoholic problem and the diseases which centre and spring from it, are becoming more prominent, and its medical and hygienic importance have assumed such proportions that physicians are called on for advice and counsel. Public sentiment is turning to medical men for authoritative facts and conclusions to enable them to realize the causes, means of prevention and cure of this evil. This new society comes to meet this want by enlisting medical men as members, and stimulating new studies and researches from a broader and more scientific point of view. As a medical and hygienic topic the alcoholic problem has an intense personal interest, not only to every physician, but to the public generally, in every town and city in the country. This interest demands concentrated efforts through the medium of a society to clear away the present confusion, educate public sentiment, and make medical men the final authority in the consideration of the remedial measures for cure and prevention. For this purpose a most urgent appeal is made to all physicians to assist in making this society the medium and authority for the scientific study of the subject. The secretary, Dr. T. D. Crothers, of Hartford, Conn., will be pleased to give any further information.

Obituary

DEATH OF DR. ERNEST WILLS, OF CALGARY, N.W.T.

WE feel that the profession, as a body, sincerely regrets the death at Calgary, N.W.T., of Dr. Ernest Wills, on Sept. 22nd, especially those who had the pleasure of his immediate friendship. Dr. Wills established not long ago Calgary Sanatorium, and had succeeded in securing quite a nice patronage from the profession, especially throughout the West. Mrs. Wills writes us to say that the sanatorium will be continued as before under the superintendency of a competent physician, who is well acquainted with all of Dr. Wills' methods and will follow them throughout.

DR. A. E. MALLORY'S DEATH.

DR. ALBERT E. MALLORY, registrar of East Northumberland, died October 5th at his home in Colborne. Dr. Mallory was of U. E. L. descent, and was born at Cobourg, February 1st, 1849. He was educated at Albert College, Belleville, graduated in medicine at McGill University, and started practice at Warkworth, Ont. He was licensed by the Royal College of Surgeons, Edinburgh, and obtained a certificate of British registration in 1878.

Dr. Mallory was for many years one of the most effective speakers the Liberals, then in Opposition, had, and he was a prominent figure in political life in Ontario. He was elected for East Northumberland at the general election in 1887, but unseated, and afterwards defeated at the bye-election. In the one session he sat in the House of Commons he gave great promise as a member. In 1889 he was appointed registrar by the Ontario Government. Dr. Mallory was a member of the Methodist Church. He married a daughter of the late Sheriff Waddell, of Chatham. Mr. C. A. Mallory, the Patron leader, is a brother.

The Physician's Library.

BOOK REVIEWS.

A *Text-Book of the Diseases of Women*. By CHARLES B. PENROSE, M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Fifth edition, thoroughly revised, octavo volume of 539 pages, with 221 fine original illustrations. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, \$3.75 net.

We have frequently referred to a copy of the fourth edition of Dr. Penrose's text-book of Diseases of Women, and always with satisfaction. The author writes happily and presents the newest ideas and best methods of gynecology. The fifth edition, which appears three years after the fourth, speaks eloquently for the author's popularity with medical students and practitioners. In its revised form the work continues to be an admirable exposition of gynecology.

J. J. C.

A *Hand-Book of Pathological Anatomy and Histology*, with an introductory section on post-mortem examinations and the methods of preserving and examining diseased tissues, by FRANCIS DELAFIELD, M.D., LL.D., Emeritus Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York; and T. MITCHELL PRUDDEN, M.D., LL.D., Professor of Pathology and Director of the Department of Pathology, College of Physicians and Surgeons, Columbia University, New York. Seventh edition, with 13 full-page plates and 545 illustrations in the text in black and colors. New York: Wm. Wood & Co. 1904.

Part First of Delafield and Prudden's Hand-book is devoted to the study of autopsies, the lesions caused by certain forms of death, e.g., asphyxia, strangulation, hanging, etc., and the general methods of preserving pathological specimens and preparing them for study. Though this covers but 60 pages of the book, we think that Section 1 is alone worth the price charged for the volume. There are too few of our younger practitioners who know how to correctly perform an autopsy and turn in to a coroner a proper report of the same, and if such will but study the first part of this

volume, they will naturally benefit and find the work thereafter not only much simpler, but vastly more interesting to themselves. Part Second is devoted to general pathology, inflammation, animal and plant parasites, infectious diseases and tumors. Part Three consists of over 500 pages and covers special pathology. We find that Dr. Prudden has wisely extended his footnotes very much throughout the book, rendering the study much more interesting by "pointing the student to other publications in which a fuller bibliography may be found." Quite a number of new illustrations have also been added.

W. A. Y.

The Doctor's Series. By CHAS. WELLS MOULTON, General Editor. Vol. IV., "The Doctor's Red Lamp," a book of short stories, concerning the doctor's daily life. Selected by Chas. Wells Moulton. 1904 Akron, O., Chicago and New York: The Saalfeld Publishing Co. Canadian agents, Chandler & Massey, Limited, Toronto, Montreal and Winnipeg.

Vol. IV. is composed of 22 chapters, each made up of short stories of events occurring in the daily walk and conversation of a busy physician's life. The volume we hardly think just as interesting as its predecessors, but makes withal most enjoyable light reading. The frontispiece, "The Village Doctor," from the painting of H. Kretzschmer, is splendidly executed, and the illustration, "A Spoonful Every Hour," on page 88, is clever in the extreme. To pass away an hour after a hard day's work, we especially recommend as a prescription Chapter VIII., entitled "The Various Tempers of Grandmother Gregg." It is true to life, amusing and clever.

Radiotherapy and Phototherapy, including Radium and High Frequency Currents; their Medical and Surgical applications in Diagnosis and Treatment for Students and Practitioners. By CHARLES WARRENUE ALLEN, M.D., Professor of Dermatology in the New York Post-Graduate Medical School, etc. With the co-operation of Milton Franklin, M.D., Lecturer on Electro-Radiotherapy, New York Polyclinic Medical School, and Samuel Stern, M.D., Radiotherapist to Dr. Lustgarten's Clinic at the Mount Sinai Hospital. Illustrated with 131 engravings and 27 plates in colors and monochrome. New York and Philadelphia: Lea Brothers & Co. 1904.

This is an attempt, and a very successful one, to collect the mass of knowledge regarding the therapeutic value of radiant energy, and to present it in a usable form. The practical and technical side of radiography is treated briefly, nearly all the space being devoted to a discussion of therapeutic indications and methods of treatment. The history and character of the X-ray

is considered in Part I., and medical and surgical diagnosis by means of the rays in Part II. In Part III. radiotherapy is fully discussed under such headings as the treatment of cancer, skin, and other diseases. The remaining four chapters are given up to light, actinotherapy, radiotherapy and high frequency currents. The therapeutic value of the X-ray in cancer and other diseased conditions of the skin is emphasized by many good cuts, showing the condition and appearance before and after treatment. The various kinds of instruments and apparatus used in treatment are illustrated, and fully described, and the author is careful to point out the fact that harm as well as good may be done by their application, and precautionary directions are given. The book is full of interest from first to last and we are sure that everyone who reads it will be delighted with it, and will be well repaid for his labor.

A. E.

The Utero-Ovarian Artery; or, The Genital, Vascular Circle. Anatomy and Physiology, with Their Application in Diagnosis and Surgical Intervention. By BYRON ROBINSON, B.S., M.D., Chicago, Ill., author of "Practical Intestinal Surgery," "Landmarks in Gynecology," etc. Chicago, Ill.: E. H. Colegrove. 1903. Price, \$1.00.

This monograph of 182 pages contains over 100 illustrations, many of them in color, showing the origin and course of the utero-ovarian artery in the formation of the so-called genital, vascular circle. The author says that much time has been spent in securing accurate and reliable illustrations from nature, and that the labor in producing the illustrations has many times exceeded that of the text, which is largely explanatory. The illustrations show the course and relations of the utero-ovarian artery as it is in the adult, as it exists before puberty, and after the menopause. They also include the genital, vascular circle in the guinea-pig, dog, cat, rabbit, leopard, cow, sheep, pig, horse, monkey and baboon.

The whole monograph is designed to be a useful help in diagnosis and a topographical aid in surgical work; but, besides this, it helps to solve many of the problems relating to the vascular supply of the uterus and ovaries which affects so largely the functional activity of these organs.

A. E.

The Principles and Practice of Gynecology for Students and Practitioners. By E. C. DUDLEY, A.M., M.D., President of The American Gynecological Society; Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago; Corre-

sponding Member of the Société Obstetricale et Gynecologique de Paris, etc., etc. Fourth edition, revised. With 419 illustrations in colors and monochrome, of which 18 are full-page plates. Philadelphia and New York: Lea Brothers & Co. 1904.

Dr. Dudley's volume is divided into six parts, the first being devoted to general principles; the second to infections, inflammations and allied disorders; part three to tumors, tubal pregnancy and malformations; four to traumatism; five to displacements of the uterus and other pelvic diseases, and six to disorders of menstruation and sterility. It will thus be seen that the author has followed out a very wise plan in arranging the subjects "in pathological and etiological sequence." In this manner, the reader will realize at once how much more valuable this method is to that so frequently carried out, viz., grouping in each part all the diseases of any particular organ. This we consider a most valuable point in Dr. Dudley's work, and the plan might well be followed by other authors with considerable advantage.

The book has been very largely revised and re-written, some chapters condensed, while others have been enlarged; all the most recent advances in gynecology having been introduced, bringing the volume up-to-date and modernised in the fullest sense of the word. We cannot refrain from referring to the color plates as being the best we have seen in any volume for quite a time. If publishers were, as a rule, to pay more attention to this department, their books would be much more valuable, scientifically and commercially.

W. A. Y.

A Text book of Pathology for Practitioners and Students. By JOSEPH McFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. With 350 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian agents: J. A. Carveth & Co., Toronto.

We anticipated much pleasure and interest as we commenced reading Dr. McFarland's work on pathology, and our greatest expectations have been fully realized, for the book is excellent, indeed.

The author's long experience as a teacher of this subject, besides his extensive personal researches in the laboratory, have well qualified him to write a text-book on pathology. Unlike most works, this subject is treated not from the professors' but the students' point of view in a succinct and intelligent form.

Well-known facts are presented as such, while others not thoroughly understood are dismissed after a brief mention.

Two types of print are used to prevent a common evil, viz., over-voluminousness.

The book is worthy as regards both text and illustrations. Of the latter there are a number of beautiful ones in colors printed directly in the text. Quite a few works on pathology have come to our desk within the past few years, but none have reached a higher standard of excellence.

W. H. P.

A Reference Hand-book of the Medical Sciences, embracing the entire range of scientific and practical medicine and allied science. By various writers. Edited by ALBERT H. BUCK, M.D., New York City. Volume VIII. Illustrated by chromolithographs and 435 half-tone and wood engravings. New York: Wm. Wood & Co. 1904. Canadian agents: The Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

This is the last volume of the new edition of the "Reference Hand-book," and comprises almost everything included in the letters Amb. to Zym. The undertaking on the part of Dr. A. H. Buck and his collaborators has been a very considerable task, and they certainly deserve congratulation upon the successful conclusion of their work. In order to see the enormity of their self-imposed labor, all one has to do is to refer to the list of authors and their contributions, as given at the end of Volume VIII. To each and all the greatest credit is due, the new edition of the "Reference Hand-book" being one of the most voluminous and complete works on the medical sciences issued for many years. The author very nobly attributes the kindly reception accorded to his work by the profession generally to the earnest and sincere efforts of his staff of collaborators, one and all having contributed their honest share of toil towards the end in view. We take this means of conveying to Dr. Buck our congratulations, and bespeak for his "Hand-book" the reception it richly deserves.

The Surgical Treatment of Bright's Disease. By GEORGE M. EDEBOHLS, A.M., M.D., LL.D., Professor of the Diseases of Women in the New York Post-Graduate Medical School and Hospital; Consulting Surgeon to St. Francis' Hospital, New York; Consulting Gynecologist to St. John's Riverside Hospital, Yonkers, N.Y., and to the Nyack Hospital, Nyack, N.Y.; Fellow of the New York Academy of Medicine and of the American Gynecological Society; Honorary Fellow of the Surgical Society of Bucharest; Permanent Member of the

Medical Society of the State of New York, etc. New York: Frank F. Lisiecki, Publisher, 9 to 15 Murray Street. 1904.

Dr. Edebohls has been a regular contributor to current medical literature in America and Europe for twenty years, the list of his papers filling three pages of the present work. His most important paper, entitled "The Cure of Chronic Bright's Disease by Operation," was published in the *Medical Record*, May 4th, 1901, page 601. Since then Dr. Edebohls has published ten articles on the subject of renal decapsulation and the surgical treatment of nephritis. In the present work clinical records are given of the 72 cases of this disease which have been treated by the author. His final conclusion is that "The evidence submitted," in the author's opinion, "not only justifies the surgical treatment of chronic Bright's disease, but establishes surgery as at present the main, if not the only, hope of sufferers from a hitherto incurable malady." The clinical histories of the cases reveal the causative influences of gout, scarlatina, typhoid fever, malaria, measles, influenza, and exposure to cold or wet in the order given. In the majority of the cases a cause is not assigned. Alcoholism appears once, peritonitis once, pneumonia once, fever once and rheumatism once. The bibliography enables the reader to trace the expression of opinion on renal decapsulation in the medical journals of Europe and America. Thus the editorial we published in THE CANADIAN JOURNAL OF MEDICINE AND SURGERY, 1902, XI., 313-317, and the original article by Dr. Primrose, THE CANADIAN JOURNAL OF MEDICINE AND SURGERY, 1902, XI., 143-152, are mentioned. The work is creditable to Dr. Edebohls' literary talent, showing that he is as familiar with the pen as the scalpel. We bespeak for it a large sale among the profession.

J. J. C.

Text-Book of Nervous Diseases and Psychiatry, for the use of students and practitioners of medicine. By CHAS. L. DANA, A.M., M.D., Professor of Nervous Diseases and (*ad interim*) of Mental Diseases in Cornell University Medical College; Visiting Physician to Bellevue Hospital; Neurologist to the Montefiore Hospital, etc. Sixth revised and enlarged edition, illustrated by 244 engravings and 3 plates in black and colors. New York: Wm. Wood & Co. 1904.

The name of Charles L. Dana is well known throughout the continent, and any work on neurology, bearing his name as author, must, almost of necessity, carry with it considerable weight and literary ability. The author has revised most of his books, which to-day comprises nearly 700 pages, and it may safely be said that though the study of insanity and similar conditions as a rule makes somewhat dry reading, Dr. Dana's book presents the sub-

ject in as succinct a style as could be wished for, many parts being quite interesting. He has followed, in his description of the types of insanity, the scheme of classification used by Kraepelin. The views held by Dr. Dana are the result of his own experience and study in asylum practice, and he is a strong believer in making as few people as possible insane. A special chapter has been added on psychological terms, which is quite valuable to the reader.

Practical Materia Medica for Nurses. With an appendix containing Poisons and Their Antidotes, with Poison Emergencies: Mineral Waters; Weights and Measures; Dose List. and a Glossary of the terms used in Materia Medica and Therapeutics. By EMILY A. M. STONEY, Graduate of the Training School for Nurses, Lawrence, Mass. Second edition, thoroughly revised. Philadelphia, New York and London: W. B. Saunders & Co. 1904.

This little volume of three hundred pages is well adapted to the needs of nurses in training. It contains much practical and useful matter relating to the source, action, uses and dosage of the various drugs usually described in works on materia medica. Its usefulness is increased by a carefully prepared chapter on poison emergencies, in which are given the symptoms and the appropriate treatment for ordinary cases of poisoning.

A System of Practical Surgery. By PROF. E. VON BERGMANN, M.D., of Berlin; PROF. P. VON BRUNS, M.D., of Tübingen, and PROF. J. VON MIKULICS, M.D., of Breslau. Volume IV., Surgery of the Alimentary Tract. Translated and edited by William T. Bull, M.D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York; Edward Milton Foote, M.D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Carlton P. Flint, M.D., Instructor in Minor Surgery, College of Physicians and Surgeons, Columbia University, New York; and Walton Martin, M.D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. New York and Philadelphia: Lea Brothers & Co. 1904.

The fourth volume of this admirable system of surgery is fully abreast of its excellent predecessors. The subjects dealt with are discussed under the following headings: malformations, injuries and diseases of the esophagus; injuries and diseases of the abdominal wall; injuries and diseases of the peritoneum: laparotomy; malformations, injuries and diseases of stomach and

intestine; hernia; injuries and diseases of the liver and biliary passages; injuries and diseases of the spleen; injuries and diseases of the pancreas.

Two or three decades ago an exhaustive digest of all the really valuable knowledge pertaining to the surgery of the alimentary canal could have been presented in much less space than the seven hundred and fifty pages contained in this volume. But this field has become so vast within recent years that its literature would fill a good-sized library. Bearing this in mind, instead of being disappointed with the comparative brevity of the discussion of certain topics, the fair-minded critic should rather feel gratified that so much really excellent and up-to-date material is presented in such concise and readable form. It is safe to say that the reader who desires to acquaint himself with the present status of surgical opinion in regard to the subjects which come within the range of this book, is likely to feel well repaid for the time expended in reading its various sections.

Many excellent illustrations are introduced, and the reader will often experience a peculiar satisfaction in having before his eyes, just where they are most needed, reproductions of familiar anatomical cuts with which to refresh his memory regarding the normal anatomy of parts under consideration from the surgical standpoint.

H. P. H. G.

A Text-book of Human Physiology. By ALBERT P. BRUBAKER, A.M., M.D., Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery; Lecturer on Physiology and Hygiene in the Drexel Institute of Art, Science and Industry. With colored plates and 354 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

“The object in view in the preparation of this volume was the selection and presentation of the more important facts of physiology in a form which it is believed will be helpful to students and to practitioners of medicine. Such facts have been selected as will not only elucidate the normal functions of the tissues and organs of the body, but which will be of assistance in understanding their abnormal manifestations as they present themselves in hospital and private practice.”

This is a new work, and it contains the latest reliable teaching on the subject. It contains a large number of good illustrations, but the author was wise in excluding those illustrations which

refer to purely technical subjects, such as physiologic apparatus and the like.

We believe it will be a very popular text-book with medical students, and can recommend it as a useful and handy book of reference for those in practice.

W. A. Y.

The Urine and Clinical Chemistry of the Gastric Contents, the Common Poisons and Milk. By J. W. HOLLAND, M.D., Prof. of Medical Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Forty-one illustrations. Seventh edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904. Price, \$1.00.

This is a very useful work for the student or general practitioner for laboratory or office use. It contains all the best tests used in the examination of urine, gastric contents, common poisons and milk in a very convenient form. It is a compilation, and, consequently, is brief. There are several cuts of apparatus used, and microscopic findings of casts, crystals, etc. The book opens from the end like a notebook and has every other page blank for memoranda. We have much pleasure in recommending this work, which is now in its seventh edition, to our friends.

W. J. W.

1 *Practical Treatise on Diseases of the Skin*, for the use of students and practitioners. By JAS. NEVINS HYDE, A.M., M.D. Professor of Skin, Genito-urinary and Venereal Diseases, Rush Medical College, Chicago; Dermatologist to the Presbyterian, Augustana and Michael Reese Hospitals, of Chicago; and FRANK HUGH MONTGOMERY, M.D., Associate Professor of Skin, Genito-urinary and Venereal Diseases, Rush Medical College, Chicago; Professor of Skin and Venereal Diseases, Chicago Clinical School. Seventh and revised edition, illustrated with 107 engravings and 34 plates in colors and monochrome. Philadelphia and New York: Lea Bros. & Co. 1904.

The revised edition of Hyde and Montgomery consists of a volume covering over 900 pages. It is prefaced with a colored plate, beautifully executed, of Xeroderma pigmentosum (from a painting in oil), and which in itself is a work of art. The authors present now a volume that may be said to have been thoroughly revised, covering fully the subject of Dermatology. They have also eliminated a good deal of material that has become what might be termed out-of-date, and have added quite a number of most creditably colored plates and engravings. "Hyde and Montgomery" may be looked upon as a work on skin diseases of no small merit, full yet concise, thoroughly up-to-date, and altogether a most reliable exponent of the subject which it covers.

A *Treatise on Obstetrics for Students and Practitioners.* By EDWARD P. DAVIS, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College, Professor of Obstetrics in the Philadelphia Polyclinic, etc., etc. Second edition, illustrated with 274 engravings and 39 plates in colors and monochrome. Philadelphia and New York: Lea Bros. & Co. 1904.

The revision of Dr. Davis' work on Obstetrics has resulted in its very considerable enlargement, making it now a volume of about 800 pages. The second edition is a great improvement on the first, and it takes but a short time to recognize the fact that the author has put in a great deal of time in his revision. He now presents to the profession a book that will compare favorably with any in print, there being no branch in medicine in which greater advances have been made than obstetrics. Dr. Davis' volume is the more valuable because it is practical and largely the results of his own experience.

The Principles of Hygiene. A Practical Manual for Students, Physicians and Health Officers. By D. H. BERGEX, A.M., M.D., Assistant Professor of Bacteriology, University of Pennsylvania. Second edition, thoroughly revised. Handsome octavo volume of 536 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$3.00 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Great advances in preventive medicine have resulted in modified views in certain particulars. In Chapter xvii. (Vital Causes of Disease), the author describes the vegetable and animal organisms, which may exist on the human host, and by their presence or through the production of toxins cause disease. A list is given of the bacteria, which are pathogenetic to man and the specific organisms of diseases belonging to the vegetable kingdom, with the date of discovery and the name of the discoverer, *e.g.*, 1863, bacillus of anthrax, Davaine; 1879, micrococcus of gonorrhoea, Neisser, etc., etc. The important question of immunity and susceptibility is discussed at considerable length, descriptions being introduced of the different theories advanced by Pasteur, Chauveau, Metschnikoff, Buchner, Pfeiffer, Bordet and Ehrlich to explain these phenomena. The antitoxic sera, bactericidal immune sera, the prevention of infection by inducing immunity, showing the influence of vaccination in restricting smallpox and Haffkine's sera in the prevention and treatment of typhoid fever, cholera and bubonic plague are likewise explained. The prevention of malaria and yellow fever is also explained. The pathogenic influence of rats, bedbugs, flies, mosquitoes, fleas, and

roaches is also discussed under different heads, and means for removing or destroying these pests given. Trypanosomiasis, helminthiasis and uncinariasis are briefly described, and finally, this chapter winds up with the vegetable parasites, viz., the *Tricophyton* fungus, the *microsporion furfur*, *actinomyces bovis*, *Oidiomycosis*, etc. The quarantine laws of the United States are given in full. The metric system is used throughout the book. The reader will also find all the subjects usually found in such books—air, water, food, disinfection, etc.—well described. Quite an up-to-date book and the author has handled the multifarious material at his disposal with great skill. . J. J. C.

Lectures to General Practitioners on the Diseases of the Stomach and Intestines, with an account of their relations to other diseases, and of the most recent methods applicable to the diagnosis and treatment of them in general; also "The Gastro-intestinal Clinic," in which all such diseases are separately considered. By BOARDMAN REED, M.D., Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology in the Department of Medicine of Temple College, Philadelphia; Attending Physician to the Samaritan Hospital, etc., etc. Illustrated. New York: E. B. Treat & Co., 241 a.n.¹ 243 West 23rd Street. 1904.

We think that we are correct when we state that there is no work, except the one under review, in the English language which in one volume treats of diseases of both the stomach and intestines. This will, therefore, recommend Dr. Boardman Reed's text-book to many. It cannot be said that there is a great multiplicity of books dealing with this subject, so that the publication of Dr. Reed's lectures does not come amiss, especially as his book contains brief concise descriptions of the tests most easily applied by practitioners in studying the derangements, displacements and diseases of the digestive organs, or abdominal viscera. We like the book for the reasons stated, and feel that it will be received well by the profession, especially by those who prefer not too bulky a volume, but one that is "boiled down," and, therefore, to the point.

The Practice of Medicine. A Text-Book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M.D., Professor of Medicine in the University of Pennsylvania and Physician to the Hospital of the University; Physician to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Third edition, thoroughly revised and in parts re-written. With 134 illus-

trations, including colored plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1903. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

It is but seven years since Dr. Tyson published the first edition of his "Practice of Medicine," since which time he has re-written it twice. His third edition may be said to represent in the highest degree the present state of modern medicine. The subject of medicine is a most extensive one, and exceedingly difficult to attempt to cover in one volume of 1,200 pages, so that it cannot be expected that any author will not in some ways fall short of the mark. Dr. Tyson, however, has succeeded admirably, and in his third edition has presented the profession with a volume second to none in print. As would be expected, the part in which the most extensive changes will be found is that devoted to infectious diseases, our knowledge of them becoming more comprehensive every day. The volume is divided into fourteen sections, viz., infectious diseases; diseases of the digestive system; respiratory system; diseases of the heart and blood vessels; diseases of the blood and blood-making organs; of the thyroid gland; urinary organs; constitutional diseases; nervous system; muscular system; the intoxications: effects of exposure to high, though bearable, temperature; animal parasites and the conditions caused by them; and Section XIV. devoted to a summary of symptoms following overdoses of poisons. We congratulate the author upon the result of his labors.

W. A. Y.

A Manual of the Practice of Medicine. By FREDERICK TAYLOR, M.D., F.R.C.P., Senior Physician to, and Lecturer on Medicine at, Guy's Hospital; Consulting Physician to the Evelina Hospital for Sick Children; President of the Clinical Society; Examiner in Medicine at the University of London; late Examiner in Medicine at the University of Durham and the Royal College of Physicians, and in Materia Medica and Pharmaceutical Chemistry at the University of London. Fourth edition. London: J. & A. Churchill, 7 Great Marlborough Street. 1904. Canadian Agents: J. A. Carveth & Co., Toronto.

As one would naturally suppose, this is an up-to-date manual of the Practice of Medicine. It is the fourth edition of a work, the first edition of which was issued in January, 1890, or a new edition every two years. It is a manual and is a handy volume which one can comfortably hold in one's hands without the aid of a table.

The author devotes "most attention to the description of the symptoms, to diagnosis, to prognosis and to treatment, feeling that they are the divisions of the subject which most answer to the idea of practice.

"Dr. Taylor has not devoted much space to the discussion of theories, finding that the facts of medicine are amply sufficient to fill, and more than fill, a volume such as this, and being convinced that these facts require to be seized and held fast by the beginners in medicine, not only for the sake of diagnosis and treatment, but also for the right estimation of the various theories which are advanced."

The subjects now introduced for the first time into the book are sleeping sickness and trypanosomiasis; family periodic paralysis; diseases of the conus medullaris and cauda equina; diseases of the thymus gland; arsenical poisoning; infective arthritis; myelopathic albumosuria, and some of the rarer diseases of the skin.

It may also be stated that at the end of the work there is a treatise on diseases of the skin. There are a good many illustrations scattered through the book. We have read several articles in this work and have been much pleased with the lucidity of the author's statements. The article on neuritis is particularly good, and the presentation of the motor symptoms of hysterical paralysis very instructive. The book is printed in large, readable type, and is neatly bound.

J. J. C.

Appleton's Medical Dictionary. An illustrated dictionary of medicine and allied subjects, in which are given the derivation, accentuation and definition of terms used throughout the entire field of medical science. Edited by FRANK P. FOSTER, M.D., Editor of *The New York Medical Journal* and *Philadelphia Medical Journal*, consolidated, of a reference book of practical therapeutics, and of Foster's Illustrated Encyclopedic Medical Dictionary. New York and London: D. Appleton & Co. 1904. Canadian agents: The Morang Co., Limited, Toronto.

If we wished to sum up in a word or two a suitable and true description of "Appleton's Medical Dictionary," we could not do better than use the Latin expression, "*Multum in parvo.*" As the author himself says, it "is in no sense a compilation, but the outcome of an extensive course of independent reading." It takes but a few minutes to realize the enormous amount of work such a volume has entailed. In many respects Appleton's Dictionary eclipses some others in print, though, on the other hand, in other ways Gould and Dungsison are superior. It is a pity that the pub-

lishers did not give us the benefit of a thumb index, which is exceedingly handy in volumes of this size, naturally alphabetical in arrangement. Again, we think that a considerably greater number of illustrations would have rendered the book more valuable; but altogether, Dr. Foster has given the profession and student population a magnificent volume and one that should have a ready sale.

A Text-Book of Materia Medica, including Laboratory Exercises in the Historic and Chemic Examinations of Drugs. For Pharmaceutic and Medical Schools, and for Home Study. By ROBERT A. HATCHER, Ph.G., M.D., Instructor in Pharmacology in Cornell University Medical School of New York City; and TORALD SOLLMANN, M.D., Assistant Professor in Pharmacology and Materia Medica in the Medical Department of the Western Reserve University of Cleveland. 12mo volume of about 400 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Limited, Toronto. 1904 Flexible leather, \$2.00 net.

We strongly recommend the students, now entering their winter's studies at Toronto University, to purchase Dr. Hatcher's *Materia Medica*, as we feel that it will very materially assist them in their laboratory work. The text-book goes fully into laboratory exercises, a method of teaching that is far ahead of the older didactic system, especially applied to *materia medica*.

Medical Jurisprudence, Insanity and Toxicology. By HENRY C. CHAPMAN, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third edition, thoroughly revised, greatly enlarged and entirely reset. Handsome 12mo volume of 329 pages, fully illustrated, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Co. 1903. Canadian agents: J. A. Carveth & Co., Limited. Cloth, \$1.75 net.

This work is based on the author's practical experience as Coroner's Physician of the City of Philadelphia for a period of six years. Dr. Chapman's book, therefore, is of unusual value to the medical and legal professions, presenting, as it does, the information gained from active participation in medico-legal cases. This third edition, enlarged by the addition of new matter to the extent of seventy-five pages, has been entirely reset, and it is evident that in its preparation every page has undergone a

careful scrutiny, so as to include the very latest advances in this very important branch of medical science. Much of the matter has been rearranged, the text has been more fully illuminated by additional references to cases, and a number of new figures and tables have been added.

In reviewing this excellent work, we have found that it covers the field completely and thoroughly, nothing of practical importance to the physician or lawyer having been omitted. In our opinion, there is no doubt that the work will meet with as great favor as the previous edition—a popularity which it certainly deserves.

Medical Monograph Series. No. IX., Adenoids. By WYATT WINGRAVE. Physician and Pathologist, Central London Throat and Ear Hospital. Pp. 128, crown 8vo. Price 2s. 6d., net. London: Bailliere, Tindall & Cox.

At the Central London Throat Hospital one may, any afternoon, rain or shine, see an interesting gymnastic performance in the removal of tonsils and adenoids under nitrous oxide anesthesia. True, it needs a dextrous surgeon, a somewhat husky nurse to hold the struggling patient—but they do it just the same. The private opinion publicly expressed by the older patients as to the surgeon's character are somewhat interesting, too; but then, what will you?

Of Dr. Wingrave's experience there can be no question, and he has treated the whole question of adenoids in a very readable and thorough manner. He devotes a chapter to the question of recurrence, so that evidently it is not unknown to him, for nitrous oxide anesthesia conduces to acrobatic surgery rather than thoroughness.

AL.

Kirke's Hand-Book of Physiology. Hand-book of Physiology, revised by FREDERICK C. BUSCH, B.S., M.D., Professor of Physiology, Medical Department, University of Buffalo. Fifth American revision, with 535 illustrations, including many in colors. New York: Wm. Wood & Co. 1904.

Kirke's Physiology has for many years been looked upon as a standby for both student and practitioner, and, judging from Dr. Busch's revised edition just to hand, it will be many years before it will be replaced as a college text-book. The book has been carefully gone over and revised, some parts having been condensed and others extended, so that the profession have now a thoroughly modern work on physiology, written in an interesting and concise manner.

CHARTS RECEIVED.

- (1) The Relations of the Segments of the Spinal Cord and Their Nerve Roots to the Vertebra. Mechanical Vibration Chart.
(2) The Sympathetic Nerve. Vibration Chart. Copyrighted by M. H. L. Arnold Snow, M.D. 1904.

BOOKS RECEIVED.

Thirtieth Annual Report of the Secretary of the State Board of Health of the State of Michigan, for the fiscal year ending June 30th, 1902. By authority. Lansing, Michigan: Robert Smith Printing Co., State Printers and Binders. 1903.

Twenty-second Annual Report of the Provincial Board of Health of the Province of Ontario (Canada), for the year 1903. Printed by order of the Legislative Assembly of Ontario, Toronto. Printed and published by L. K. Cameron, Printer to the King's Most Excellent Majesty. 1904.