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### Original Contributions.

#### MEDICAL EVIDENCE.\*

BY JOS. M'DOUGALL, ESQ., Senior Judge, County and Surrogate Court, Toronto.

Mr. President and Gentlemen of Toronto Medical Society:

Evidence is divided into two kinds: First, as to facts that have come under the observation of the witness; and second, evidence as to the interpretation of facts founded on knowledge possessed by witness of a special subject. A witness testifying as to the first class of evidence is styled a common witness; as to the second, an expert witness. A common witness gives evidence of the condition of the person examined by him, describes the wound, the condition of the patient, or other circumstances coming under his personal observation. An expert witness giving evidence acts only as an interpreter of facts, having himself no personal knowledge of them. As for example, referring to a wounded person, he is asked from a description of the wound to say if such a wound is dangerous to life. It is important that a person called to give expert testimony and asked to interpret facts testified to by other witnesses, should be present to hear the discussion It must be borne in mind on which the opinion is asked. that professional secrets are not protected. The witness is bound to answer all relevant questions put to him regarding the matters he may have had communicated to him by his patient while in attendance. This may be repugnant to his mind

<sup>\*</sup> Epitome of an address delivered before the Toronto Medical Society.

and his conscience, but he has no option. In case he refuses to answer, he is liable to all the penalties for contempt. A clergyman is not privileged any more than a medical man. A witness may refresh his memory by looking at notes if such notes were made at the time or immediately after the happening of the events They must be his original notes, though, to which they relate. and not a copy; or should he use a copy, he ought to have with him the original notes, that they may be compared with the copy if Thus he may refer to notes for measurements, names, places, etc., but should not read his notes as testimony, but refer to them only for his data. His testimony must be oral. It often happens that books are quoted by counsel as authorities for statements or contentions made by them. A medical expert witness or common witness, if asked questions upon these lines, disagreeing from the conclusions of counsel, should ask to see the book before contradicting, so that he may examine the context before he attempts to refute or contest the dictum of the writer. expert's opinions are supposed to be the outcome of his own knowledge and experience, and therefore, if he is called upon to express an opinion upon a disputable question, he should hear the witnesses before being asked to give his own opinions upon the facts. The mere reading of the transcript of evidence given by witness is highly unsatisfactory as a method of preparation to answer theoretical propositions or give expert opinions. Then another important fact not to be overlooked, is that an expert witness, if present, is able frequently to suggest to counsel certain questions whereby doubtful facts can be cleared up, or needed data, not to be gathered from the facts stated by the witness, can be supplied.

It is highly important that professional jargon should be avoided as much as possible in the witness box. There are in almost every case English equivalents for medical forms of expression or medical terms. The impropriety and confusion likely to arise to lay minds by the use of technical and scientific expressions can be easily illustrated. A number of physicians listening to lawyers discussing a point of law in court would hear many expressions and terms which would be quite as unintelligible to the doctors as a similar technical medical account of the injuries of an individual would be to the jury, or to the counsel in the case. A description which might be suitable to a medical society would convey but little meaning to a jury. The effect of technical terms on a jury is confusing and misleading; as, for instance, the expression, "a black eye," is a simple thing and would indicate but a trifling offence, but to describe the condition as a large amount of extravasation of blood beneath the cuticle under the left orbit might in the minds of a juryman be the result of a

monstrous offence. In a very valuable little work written for the amusement and instruction of lawyers, the following illustration is given by the learned author. He says a medical man in giving evidence as to the condition of a man who had been assaulted, stated the condition of the victim as follows: "I discovered considerable ecchymosis under the left orbit caused by extravasation of blood beneath the cuticle." The learned judge interrupted and said: "I suppose you mean the man had a black eye?" witness: "Precisely, my Lord." It is just as easy to say arm, ellow, knee, fect or head as to use Latin equivalents. cal man should always use as simple language as possible, and preserve an attentive and impartial demeanor, and try to remember that every part of the body almost that can be thought of has an equivalent English name. You should also be sure that you understand the question. Be sure that the facts are sufficiently stated to form an opinion. It is much wiser to say you do not know than to give an ambiguous answer. If a counsel insists on an answer of yes or no, should the question allow such an answer, answer it; if it does not, qualify your answer and appeal to the Court to relieve you. Above all things, keep your temper. Do not volunteer information. If the counsel calling on you does not know enough to ask you proper questions, that is not your fault or your business. It is better to talk as if you were trying to explain or express your idea intelligently to a boy in the second or third class at a public school. Always consider the capacity of your audience to take in your meaning, and that you are giving your testimony to a number of laymen. Do not talk above people's Medical men are prone to theorize. They are very tenacious of their opinions. They too often take diametrically opposite sides and arrive at opposite and diverse conclusions, not exactly from the same premises, but from a different conception of the same premises or from regarding them from a different stand-It often makes all the difference in the world whether a witness forms his opinion from the facts, or whether he starts a theory and then endeavors to make the facts square with them.

The general public have not a very high opinion of expert testimony. They believe that expert evidence can be hired. They believe that the number of experts obtainable on each side of the case is only limited by the length of purse of the litigants. They are of the opinion that most experts have no conscience or scruples as to which side they may be called on. That their attitude or the side for which they usually give their testimony is determined largely by questions of priority and the extent of the fee. It is also unfortunate that experts are frequently charged with partizanship; with occupying the position of hired advocates. The true position of an expert should be judicial, impartial and fair.

If called on one side, you unduly magnify the injuries, or if called by the other you unduly minimize—you are not acting fairly to yourself or to an honorable profession. If you say there is nothing in the injury, that it is only temporary and will quickly wear away, etc., etc., in a glib off-hand way, the jury probably won't You may question, are not lawyers open to similar believe you. criticism? My answer is, No, because the public know that the profession of a lawyer is to be the advocate of one side, and the public expect he will deal with one side of the case only and present it as favorably as possible. You must remember your reputation and the reputation of your learned profession. years of good honest service and honest conduct may be overridden by ten minutes of dis-service or ten minutes of bad conduct. There are good and bad members in both professions, and it is highly important that you should tre t it as a serious matter. is unwise to be jocular or flippant. Lawyers know human nature, and very often if they can trap a witness into appearing to be jocular, they immediately seize the opportunity to impress the jury when they come to address them with the consideration that a witness who was so lively and flippant is not to be trusted. The lecturer then enlarged upon the ethics of the two professions, and particularly as to those which should be observed by medical men when on the witness stand, and concluded his lecture by making some suggestions as to the requirements necessary in taking dying declarations, stating that it often happened that the medical man was the only available person of intelligence to make a note of serious statements which might become most material later, either upon the trial of an offender, or in some civil action.

He said: In taking dying declarations, it is necessary to be assured of the fact that the victim believes that he is dying. Such belief should also be stated in any written declaration signed. other words, the written declaration should be preceded by a statement which indicated that the declarant was under that firm If a magistrate is not procurable to take the deposition or statement, the medical man should take it. He should, if pessible, have another witness present. If the victim cannot sign the statement, the medical man should read out his statement. He should satisfy himself that the victim is convinced that he is going to die and, as I said before, start his written account with statement of that fact. This statement should be unqualified won't do to start with such ar expression as "No hope of my recovery at present." Such a qualification would utterly prevent its being used. The exact words of the victim should be written No questions should be asked, except to clear up any obscurity, and the statements should be limited to what was done to the deponent at the time that the injuries were inflicted. His own

actions are irrelevant. The statement when so prepared should be read over to the declarant and signed by him if possible. If another witness is present, both he and the doctor should sign the statement. Should death occur so rapidly as to prevent writing down the statement made by the dying man, the physician should listen carefully and take the earliest opportunity afterwards to write down the exact words and to sign it. Should there happen to have been another witness present who heard the same statement, the written statement should be read over to him and also signed by him.

In reference to the physical examination of persons for the purpose of forming opinions, you must remember that you can only make such examination with the person's consent. To attempt to do so by force is to commit an assault. No order of the Court directing the examination will justify the making of it against the will of the person to be examined. If the person to be examined refuses his consent, that ends the matter, and you

can only report the fact to the Court.

#### DISEASE IN KOREA.

#### BY O. R. AVISON. M.D.

A study of the diseases of a country involves an investigation of the habits and social conditions of its people, of the sanitary arrangements of its towns, and the topography and cultivation of its land. The first thing that strikes a foreign physician in Korea is the small size of the houses. They are of one story, have overlanging eaves some two or more feet wide which shut off the sunshine, are enclosed by a wall about five feet high within which is a court often not more than fifteen to twenty feet square. This court is often lower than the street, and across it runs an open gutter into which are thrown all sorts of refuse to be washed away when it rains. The rooms may be one to three in number, and are usually seven to eight feet square and seven feet high, but may be twice as long. The same room serves as dining room, living room and bedroom, and is consequently partly occupied by the cabinets which contain the clothing of the family, and by the quilts and thin mattresses, which at night constitute the beds, but which in the day time are rolled up and piled at one end of the room, the air space being so much the more curtailed. A door, which may be also the window, opens into this room, and is made of lattice-work over which paper is pasted to take the place of glass. Sometimes a small window, one by two feet, is placed on the opposite side of the room, near the ceiling, which would serve nicely for ventilation purposes, did the occupants believe in such a thing, but, as they don't, it is oftener kept closed to make the room easier to heat. In this room the whole family sleep on the floor, parents and children, and oftentimes other relatives, the more the warmer, and the recollection of the odor that can be distinguished in one of our own well ventilated and commodious bedrooms in the morning, after a night's occupancy by even two persons will, in some measure, suggest the condition of the air in such a room as is described above.

Then, cleanliness of person is not a marked characteristic of the Korean people. They do not believe in winter baths, nor in too many summer ones, and so their skins become coated with the accumulations of the winter months, and free perspiration is one of the impossibilities. Their food, too, consisting largely of boiled rice, with very little animal food, is eaten rapidly, and on account of its nature is so bulky that digestive troubles are all too common, while the impure and promiscuous relations of the sexes is so common that veneral diseases constitute a considerable proportion

of the cases that call for treatment.

Sanitation is a modern innovation that has not yet begun to trouble the minds of the dwellers in Korean communities, and so we find narrow streets, often only four to eight feet wide, although some streets in large cities are as much as sixty feet wide, with no drainage except open gutters along the sides, close to the foundations of the houses, which gutters contain all the refuse of the streets and houses, and retain it often, too, until a beneficent rain comes and washes it away. The waterclosets jut out from the sides of the houses or courtyards so as to overhang these gutters, and the night soil drops into them and forms one of the most striking features of the street scenes and odors to the newly-arrived foreigner. A peculiarity of these deposits is the almost constant presence of tape-worms and ordinary ascarides, so that one is almost forced to the conclusion that practically all Koreans are, during a great part of their lives, the hosts of those more or less troublesome intruders. Very little observation serves to discover-The neighborhood wells are frequently lothe reasons for this. cated at the side of the street, within two or three feet of these same gutters, and, being usually very shallow, often serve more as collectors of surface water and soakage from the gutters than as reservoirs of spring water, while the venders of vegetables often wash off the soil from the freshly-plucked lettuce and turnips in the water of the gutters, and give them a cleanness more apparent than real, and then the vegetables, being generally eaten uncooked, scree admirably as a means of transfer of the eggs of the tenia and ascaris from the gutter to the digestive tract of the unthinking

eater, and thus keep up the supply. The presence of these intestinal parasites is so constant that the average Korean believes them to be an integral part of his economy, and only thinks of interfering with them when they become so numerous as to annoy him with griping abdominal pains, which he invariably associates with their presence in numbers too great for his comfort, saying "the worms are coming up" in him.

I buy santonin in 20-lb. lots for use in our dispensary, and so useful is it that the Korean doctors have taken it up, and often send to us for two thousand worm-pills at once. Each pill contains 2 gr. santonin and 1 gr. calomel, and we put them up in the

dispensary so that they are always fresh and soluble.

The most effective remedy we have found for tape-worm is the old extract of male fern, which we give in dram doses on an empty stomach, much to the satisfaction of the patient (after it is all over), but he often grumbles a good deal at the necessary fasting

and preparation by cathartics.

Outside the towns and cities the chief agricultural crop is rice, and as almost all of it is of the lowland variety, it requires very wet soil, the fields being banked up and containing standing water most of the time. These rice fields are either the cause of a great deal of malaria or they are very much maligned. At any rate, malaria is one of the commonest diseases found in Korea, and usually is more frequent where rice fields are most numerous. The presence of mosquitoes in these localities may have something to do with the coincidence of malaria with rice fields if, as recent investigations appear to indicate, it be a fact that these humming birds of the night are the hosts of the malarial parasite outside the human body. Certain it is that rice fields, mosquitoes and malaria form a combination often found together. Some idea of the frequency of malarial attacks may be gathered from the fact that I have known six thousand ounces of quinine to be sold within one year by one man, who had not by any means a monopoly of the business. It was bought largely by native dealers, who took it into the interior and sold it out in single ounces, or often in 5-grain powders, and mainly for the relief of malaria.

This disease appears in all the forms noticed elsewhere—quotidian, tertian and quartan intermittent, with remittent of various types. While cases of all these types not infrequently come for treatment simultaneously, it is much more common for us to have a period marked by a preponderance of one of them, afterward a period during which another type prevails, and so on. They are all usually amenable to quinine, the average quantity given being thirty grains, in divided doses of five grains each, and generally no other med cine is required, but if recovery is not complete a second portion is given, or perhaps a week's treatment with

a mixture of quinine, arsenic, and nitro-hydrochloric acid. I have frequently treated cases successfully by a few enemata of

three to five minim doses of ordinary carbolic acid.

Malaria very often seems to be associated with and to be a factor in the prolongation of many other diseases in Korea, even if it be not their exciting cause, and so we have innumerable cases of diarrhea and dysentery, general malaise, headache and neuralgia, which remain uncured by other forms of treatment, but yield readily when quinine is administered.

What has been said above will lead your readers to the ready conclusion that many of the illnesses of Korea belong to the class

of dirt diseases, and such is the fact.

Outside of malaria, the fevers most prevalent are typhus and relapsing, and some of the eruptive fevers. Typhoid is not unknown, but is certainly rare, typhus apparently taking the place occupied by it in this country. This is the old spotted fever, and is one of the most dreaded of all the many sicknesses that Koreans are subject to. In former days, indeed so late as 1896, typhus fever patients were placed in small (very small) tents made of straw matting, erected in isolated places outside the towns, and there they awaited death or recovery, being attended by a relative who felt bound by ties of blood or affection to run the risks of the contact necessitated by waiting upon him. I have often visited these tents and, creeping through the small opening, sat by the side of the patient who lay on a mat on the ground, there being barely room for a second person inside the booth, and, myself almost smothered by the close odors, wondered that any ever recovered under such conditions. But then they would have been as badly off in their own homes, for they are afraid to ventilate the room of a fever patient. The poorer classes often were simply carried to the outside of the city and left lying on the roadside near the city wall, but it may be that these had even a better chance than had those who secured the supposed advantage of a booth; they got more air, at any rate.

One of my summers was chiefly spent in gathering such outcasts into a hospital which had been established for the purpose. The Koreans do not distinguish between typhus, relapsing, and remittent fevers, excepting that they realize that the spotted kind is more deadly, so I found that my patients were not all of a kind, but developed along those three types. The better food, the fresher air, and the tonic treatment we gave them greatly decreased the death-rate they were accustomed to. We found that most of the

deaths occurred amongst the "spotted cases."

I speak of relapsing fever, but must do so a little guardedly, as I was unfortunately without a microscope when I had the opportunity to examine the blood, and so diagnosed the cases by their

symptoms only, but other physicians have also made the same diagnosis, and it is probably correct. I shall go back, however, better equipped in some ways, and hope to base future diagnoses

on more exact knowledge.

Tuberculosis plays great havoe, being undoubtedly favored by the smallness of their houses, the very unsanitary condition of their surroundings, and the overcrowding of their sleeping apartments. In Korea, at any rate, whatever may be the case elsewhere, this disease does not result from the use of milk, as cows are used only as beasts of burden, never being subjected to the milking process, because the people do not use milk in any form. All forms of tubercular disease are observed—pulmonary, meningeal, and peritoneal—while diseases of bony tissues constitute a considerable proportion of the cases that are operated on in our hospital. Most of these appear to be tubercular, and include spinal column, all the joints, and the several long and flat bones.

Scrofular glands, too, are exceedingly common, and being left untreated for so long, or, if treated at all, subjected to the dirty, irritating applications of the native doctors, they come to us in

very aggravated forms.

As hinted above, venereal diseases are exceedingly prevalent, but as they occur only in the forms that are prevalent here, no special description is necessary. Skin diseases are common in about the same ratio as in other lands, eezema leading easily, with scabies as a good second. We have found no other remedy for this so thorough and so rapid in its action as the golden wash, consisting of a solution of calcium sulphide, made by boiling together in water equal parts of slaked lime and sulphur.

Leprosy has gained a strong foothold in the south of the peninsula. It presents the usual varieties and aspects described in the text-books, viz., tubercular or nodular, anesthetic, or nerve

leprosy, and mixed.

While the uninitiated may find difficulty in diagnosing this disease, especially in its early manifestations, experience gives great facility in recognizing it, because of its very definite symptoms. The first of these to be developed is probably the anesthesia. This occurs in isolated spots, can almost always be found, and is generally considered to be pathognomonic in suspected cases, suspicion being aroused by a peculiar appearance of the face caused by a thickening of the skin of the lower half of the forchead, producing the so-called "leonine" countenance. A feature that strikes one forcibly is the aged expression of the face, a man of twenty years often having the appearance of fifty. This is caused by the wrinkling and thickening of the skin of the face, produced by the deposit of the so-called tuberculous matter in it. Like the leprosy of other countries, that in Korea is apparently

only slightly contagious, for it spreads very slowly, and one case of a boy of about seventeen years of age was brought to me, who had suffered from the disease for seven years, during which time he had lived at home in one of the small houses I have described, in close contact with other members of the family, without any others developing the disease, and this is not an isolated example of such incidents. The development of the disease itself is also very slow, extending in many cases over a period of many years, the patients more often succumbing to other intercurrent troubles, to which the weakened resistance of the tissues renders the victim an easy prey. I should judge that this is the more common end of those unfortunates.

While an occasional case is found northwards, the disease is practically confined to the southern province, and to a somewhat circumscribed locality, so that it would appear to be dependent upon some undetermined conditions of soil (?). I have tried various methods of treatment, and find that the progress of the disease is favorably influenced by removal of the patient to an uninfected district, by attention to cleanliness, and by good food, and that while I have seen no instances of complete cure, I have seen very marked improvement follow the use of antisyphilitic remedies, more especially perchloride of mercury, under the influence of which, in doses of gr. 1-20th three times a day, I have observed severe ulcerations heal up, deposits in the skin become much thinner, the patient resume a younger and brighter aspect, and all the symptoms become markedly changed for the better, but the improvement invariably stopped short of recovery.

I have observed a peculiar disease, the English name of which I do not know. I have been unable to tabulate it under any of The natives speak of it as "toil," which means place disease, as they believe it to be caused by drinking the water of certain localities. It appears to be distributed over the central and southern districts, but is limited to certain localities in these districts, and in those special localities a considerable number are affected. It is a chronic disease which runs a course of years before it destroys the patient, which it does in much the same way as pulmonary tuberculosis. The first symptoms are slight cough, with a little expectoration and slight general debility, but as the disease advances the cough becomes more troublesome, and the expectoration, which is more profuse and purulent, is tinged with blood, fresh and decomposed, and is foul-looking and At the same time the ends of the fingers become clubbed in a marked degree, and form one of the most characteristic features of the condition. I have not observed in any cases any rise of temperature, there is absence of the hectic flush of phthisis, and : Ithough there is considerable debility, this is not

nearly so prominent a feature as one would expect from the amount of cough and expectoration. I have made frequent microscopic examination of the sputum, but have failed to discover the bacillus of tubercle, as has at least one other observer. I do not remember having seen any definite improvement from any of the lines of treatment I have attempted, and the natives do not appear to know of any successful remedy.

Beriberi is found in Korea, but appears to be practically confined to the Japanese residents. It follows the lines described in the text-books, but can scarcely be caused by the rice and fish diet, as this same diet is used by the Koreans, who are free from the

disease.

Of the eruptive fevers, smallpox is the most common, almost all children having it before they are six years old, many families being childless because of it. So certain are they that their children will contract it, and so great is the death-rate, that mothers scarcely think it worth while to reckon as definite members of the family such children as have not yet had it.

Vaccination has been introduced, and has been so successful that many families have grown up of recent years untouched, as a result of which it is fast becoming popular, although prejudice dies as hard there as here. The foreigners, depending upon their vaccination, pay little attention to it, going in and out amongst it

without fear.

It is said by anti-vaccinationists that vaccination is not a reliable protective, because sometimes those who have been vaccinated contract smallpox, but this argument is not effective, because even the disease itself, while almost always protective against a second attack, is not invariably so. I treated a case of this disease at our hospital in a young man who had previously had it, but in spite of his former attack, and in spite of treatment,

the eruption became confluent and the patient died.

Scarlet fever and diphtheria are not prevalent, though they do occur, but measles are as general as in this land, and whooping-cough is also quite common. Asiatic cholera is not endemic, but is epidemic every few years. I went through one epidemic of it, and shall be quite satisfied not to repeat the experience. I can see even yet the rows of blue, cold, clammy, shrivelled, pulseless patients lying on the floor of the temporary hospital, vomiting, purging, crying out with pain, drawing up their cramped limbs, or tossing about with extreme restlessness, while the attendants passed from one case to another, rubbing the limbs and trying to maintain the circulation until the crisis should pass. I can see the dead being carried out to the improvised morgue, to be wrapped in straw mats and borne away to burial, while the vacant places on the floor were filled by new-comers equally blue and

pulseless as they had been. I can see the troubled looks of the dectors as they looked over the records and found a death-rate of 97 per cent., and wondered if nothing could be done to improve it.

All the remedies recommended by various writers were tried, but all seemed equally useless until we got the patients into better quarters where external heat could be used, and then a change came, and the death-rate fell to 65 per cent. The better quarters I refer to consisted of small rooms, having stone floors heated from below, so that the patient lying on the floor could be kept fairly warm and the vitality preserved until the severity of the We thought that salol was of definite disease had passed. assistance when administered in 10-gr. doses every one or two hours, in conjunction with the supply of external heat, but the progress of the disease is so rapid, and the mucous membrane of the digestive tract is throwing out material at such a rate that absorption of medicines and food probably scarcely takes place at all, and greater success comes from recognizing that fact and endeavoring to bring about a reaction and support vitality by the application of heat and friction of the surface than by relying on internal medication.

Thirst is one of the most troublesome symptoms, and although the patient is so cold externally, he will beg for copious drinks of cold water which, being promptly ejected, only adds to the certainty of more rapid collapse, but the slow sucking of bits of ice and the sipping of cold aerated drinks appear to give decided relief from vomiting and thirst. As the result of my summer's experience with the disease, if I were to be treated for it I would prefer to trust myself to clean, warm surroundings, application of plenty of external heat, high lavage of the bowels frequently administered, and free subcutaneous injections of saline solution, than to the administration of any or all the drugs of the pharmacopeia.

Dysentery is one of the plagues of Korea, is often very stubborn and as in other tropical and sub-tropical countries, is not infrequently followed by hepatic abscess. Two of the foreign trained nurses located in Seoul died of that complication. In such cases we prefer to operate as scon as the presence of pus is determined. The last case that came under my notice was a very severe one. The patient was brought in with a history of having slept on a cold floor one night, resulting in the onset of a chill, since which time he had grown worse until he reached his present condition which was as follows: Very anemic; general edema very great, even his face being much swollen; great dyspnea with cough and abundant purulent and brownish expectoration; left lung with a large cavity; right lung almost solidified from compression; apex beat of heart in left axillary line; marked bulging over liver

region, with liver dulness extending from between third and fourth ribs above to the level of the antero-superior iliac spine below, over all of which region he complained of pain and evinced tenderness on percussion; temperature variable; hectic flush frequent, with cold clammy perspiration in the intervals; pulse very rapid and sometimes difficult to find because of weakness and the Aspiration obtained pus such as is usually found in liver abscess, from a point three inches below the last rib and two inches in front of the right axillary line, and also from the seventh interspace, and the diagnosis was hepatic abscess, with perforation into the left lung. We hesitated to operate on what seemed to be a hopeless case, but he pleaded so hard for us to try, even though he should die on the table, that we gave him chloroform very carefully, and made a free opening into the liver just in front of the cartilages of the lower ribs, and evacuated a large quantity of pus and broken down tissue. The cavity was so large that I could pass into it a 9-in. dressing forceps and move it freely from side I should not omit to say that firm adhesions had formed between the liver and abdominal wall, which rendered the operation a comparatively simple one. Having passed in two large rubber drainage tubes, we put on plenty of dressings and awaited During the night he almost died from collapse, which we thought was due partly to shock, but he rallied towards morning and when, on the second day, we attempted to wash out the cavity, we discovered the cause of the shock in an extensive hemorrhage into the abscess cavity, which stopped only when the clot completely filled it, but fortunately in time to prevent death. had considerable difficulty in breaking up and removing this clot, but eventually succeeded. When the cavity had been cleared of solid matter, air passed freely in and out of the drainage tubes to and from the perforated lung.

Microscopic examination of the pus from the liver revealed no amebæ, but only pus cells, liver cells, and broken down liver debris, while the sputum was of the same character. Recovery ultimately took place, and a letter received a few days age spoke of him as

being well and strong.

Fistula in ano is very common, and the cases are left untreated so long that they are sometimes very severe. In one case on which I operated the nates were so undermined with fistulæ, all connected with one another in a net-work, that I was compelled to operate in stages, and by actual measurement I cut through over fifty feet of fistulæ, and finally the buttocks were left covered with such a mass of nodules of cicatricial tissue that I had in the end to cut off almost all the skin and leave a smooth surface to heal by granulation.

Suicide is very frequently attempted. The importation and sale of opium is forbidden, but the Chinese often bring it in, and

so this is a commonly used poison for suicidal purposes. The choice of methods seems to vary at different periods. For several months, almost all the cases I am called to have taken opium, then will follow a period of throat-cutting, then for months most of the cases have used concentrated lye. This is certainly one of the most fearful modes they could adopt, for great suffering is caused, death comes but slowly, and even when the life is for the time being saved, the gradual contraction of cicatricial tissue in the esophagus often causes slow starvation and a terrible death.

One of these cases, an otherwise healthy young married woman, permitted us to attempt gastrostomy, which was successful, and she is still living after a period of two years, as strong and hearty as ever. She masticates her food and then transfers it into her stomach through a small rubber funnel taken from a stomach siphon. During the intervals between meals she stops up the opening with a glass stopper taken from a Worcestershire

sauce bottle, held in place by a bandage.

All forms of eye disease come before us, but the most common is conjunctivitis, which is often a result of want of cleanliness. Next to it is corneal ulcer, often of syphilitic origin. Cataract cases are abundant, and nearly all of them do well after operation. Many eyes are lost from the inflammation accompanying smallpox, this being the ordinary cause of the great number of blind children that we meet.

Native Korean medical practice is a jumble of unscientific, haphazard attempts to interpret symptoms and administer remedies, the traditions of which have been handed down from the distant past by word of mouth, and in some cases by written description. The system has been obtained from China, and is similar to that in vogue there. There are two classes of doctors, one of them using medicines only, for the cure of all kinds of cases, the other despising medicines, and putting his faith in acupuncture, letting out through the little holes made by the needles the humors or disturbing influences which have caused the Patients frequently survive both the medicines of the one and the operations of the other, but not always, for the latter gentlemen have no scruples about inserting their needles into joints and muscles, or even the abdominal cavity, and as their knowledge of bacteriology and the need for cleanliness is yet a minus quantity, their dirty needles often cause abscesses and inflammations which do great damage or even cause death.

They have no knowledge of anatomy, and therefore never attempt surgery, so in that line the foreign physician has a clear field. Prejudice in favor of their own methods is still strong in the minds of the majority of the people, and many consent to give the foreign doctor a trial only when they realize that death is

threatening them in spite of their own doctor's efforts.

#### THE DOCTOR OF THE FUTURE.

BY ALBERT D. WATSON, M.D., TORONTO.

From many years of personal experience and careful observation, I am led to believe that no class of men is more unselfishly devoted to the work to which their lives are given, and none, not even the clergy, is freer from the mercenary blight of modern competition than the medical profession. Whatever, in the modern practice of medicine and surgery, is as it should not be, is as a general rule attributable to conditions which could be corrected by judicious societary reform. In a word, nearly all our needs and defects as a profession are due to extrinsic and not to intrinsic causes.

Like all other good men—and like bad men, too, for that matter—the doctor is often greatly misunderstood. In olden times, he was regarded as an oracle, whose dicta were the repositories of almost magical virtue, and whose acts were a veritable arcana celestia. In this age, when light escorts unsupported theories to the confines of the world and bows them out, the public is disenchanted; the doctor's infallibility is no longer a working theory; he has taken his place beside the seekers after truth, and none is more pleased than he. He is learning to use the culture medium, the microscope, and the syllogism so effectively that his statements of truth, based upon well-substantiated evidence, deduced from a sufficient range of experience, may once more come to be regarded almost, though not oracularly, as the ipsissima verba Dei.

Of the many nightmares that have cantered into the dreams of the profession within the last quarter of a century, the lodge-physician and the patent medicine are the most frightful; yet both are signs of the times. The lodge-physician is the forerunner of the state-physician, but lo! the state-physician is already in our midst, for has not every progressive community its medical health officer, and are we not constantly putting more diseases under his inspection, and have we not already put one disease into his hands exclusively, for treatment, and what physician will say that we should not do likewise with another, and that immediately? Let that brave who will say that tuberculosis should not be treated by a state-physician at the state's charge speak now, and all who hear him will hear a voice from the past.

The lodge is a combine; so also is the insurance company, the street railway company, the department store, the trust, the railway, the city waterworks department, the street commissioner's department, and every partnership on the planet. Every man or woman who writes a letter and mails it to a friend is aiding the

most powerful and highly organized combine known to history, and that physician who has a contract to attend the employees of any firm of merchants or manufacturers, or the workmen of any railroad or street railway company, and who at the same time opposes the principle of lodge practice, is a hypocrite. Let me hasten to say that the dear brother does not seem to know it, so we forgive him and leave him to think it over. The pale moon could as easily thwart the splendors of the dawn as could the medical profession abolish lodge practice, except by supplanting it by introducing state medicine and surgery. The lodge and all other combines, including the trust and the department store, must be extended till they assume national proportions; for the combine principle is all right when viewed from the interior. Let us, then, all get inside, and there will be no lodges left, their uses having vanished in the dawn of a science of national sociology, a universal art of social life.

What, then, of the patent medicine? It is certainly bad. Very bad! Some of our leading physicians, nevertheless, order such medicines in their prescriptions. Some of the professors in the medical faculties of our colleges and universities write prescriptions in which they order compounds, of whose ingredients they are ignorant. I know whereof I speak. What then? Let such persons be silent, or else defend their own practice in this matter. Under the system which is coming into vogue in the future, secrecy in making medicines and ignorance in prescribing them will cease. No intelligent person will then prescribe a medicine of which he does not know the ingredients, and let us hope that no fool will be left who will treat disease without knowing something of physiology, anatomy, pathology, and clinical medicine.

It is to be hoped that in the coming time the public will have more confidence in the physician than, perhaps, they have reason to have at present. The tendency of the public mind to draw conclusions from very partial knowledge is too prevalent in these times. One result of this tendency is the extravagant fear that is now prevalent in so many minds regarding the danger that is supposed to lurk in many essentially good things. The physician has difficulty in getting his patients, and the public generally, to breathe plenty of pure air, so thoroughly have they the fear of bogic draughts before their eyes. Even pure, cold water is banished from the dietary of many homes because of supposed deleterious qualities. The modern viseacre shrivels his otherwise juicy anatomy into a bundle of desiccated tissues, or shatters the firm tone of his nerves by inordinate tea-bibbing, to avoid the use of drinking-water, which his prolific imagination fills with sprouting germs and

wriggling animalcula, with health-destroying and murderous micro-organisms of every description. It is a herculean task imposed upon the doctor—largely, I admit, by his own discoveries but nevertheless the task is imposed—of avoiding the rock of dangerous exposure on the one hand, and at the same time of keeping out of the whirlpool of fear on the other. How this will be remedied I do not know, unless by increasing knowledge and larger confidence in the harmony and healthfulness of nature, which will,

I believe, largely remedy the evil.

Medical men have long been aware that the mental state has a profound influence upon the health of the patient. till recently, however, has the doctor given this matter the The "Mental Scientist," the supernaturalattention it deserves. ist known as the "divine healer," even that absurd extremist, the "Christian Scientist," so called, has drawn the attention of the public, and by slow degrees, of the profession also, to the fact that cures of many painful affections are wrought by psychical influ-The interest and concern of medical men having been aroused, they will go over the whole ground and make new and more correct generalizations than have hitherto been received. That pain can be abolished, in many cases instantaneously, has been demonstrated beyond cavil. Even small tumors are often eradicated by its influence, time being in such cases required for this psychic process. The mass of evidence which supports the marvellous power of psychic influence in the hands of the unscientific is overwhelming. The dogmatism and fool-hardy ignorance of these people has led them into most grievous error, and has victimized hundreds of worthy citizens, but they who have never dogmatized from insufficient evidence should be the first to polt these sinners with the stones of truth, and I, therefore, humbly The future will doubtless lead us into regular psychic paths, and shed harmonious light upon the fields of mental pheno-Till a more thorough and scientific grasp of mental therapeutics is attained, the profession will feel safe in seeking to surround the lives of afflicted ones with all the hopefulness and strength and brightness which it is possible to command.

Every year, tendencies are manifested which are most significant as pointing with promise to the future, and indicating what the model doctor in the model state shall be. One such tendency is, to use less medicine than our predecessors were accustomed to prescribe. Some whole classes of remedies are almost gone out of use already; as, for instance, the emetics and the emmenagogues, while other classes are much less relied on than formerly for internal medication; as, the astringents, stimulants, diaphoretics, directics, and antiphlogistics. Wherever other means will accomplish the desired result, such means are chosen, as being of more

certain action, and less likely to disturb the normal functions of This change has come about through a more thorough clinical and pathological investigation. Such causes will continue to operate till the amount of medicine used by the profession reaches a minimum. In the large majority of cases, the medicine taken in the future will be unauthorized and discountenanced by the profession. Taking medicine will be largely a function Lecommended by quacks, supported and practised by the ignorant, and, except in rare cases, tabooed by the intelligent. Doctors will no more be named appropriately "medical men," the administration of medicine having become one of his least important func-Even now, most physicians treat without medicine such cases as seem not to require it, but there is a prejudice in the public mind against such a course, and a tonic is often given, more to satisfy such a feeling than to treat the disease, for that physician would be thought neglectful who would treat any disease without medicine.

There are those who claim that as intelligence increases in the community, there will be less need for the professions of law and medicine, till by and by the doctor will be defunct. They say that the doctor is fast demonstrating, in an absolutely scientific manner, his own uselessness. Others claim that every man will be his own doctor. In the past, the priest-physician mixed his potions and the tonsorial surgeon bled his victims, but it is said that in the future, though the auto-tonsorial craft will be extinct, every man will be his own priest, his own lawyer, and his own doctor.

There are others who say that very soon there will be no more sickness and no more death. The country is flooded with tracts setting forth this theory, but the "literature" which teaches it does not often reach the physician. Just think "how lovely" such a lifewould be! To get tangled inextricably in the wheels of an express train; to have one's head taken off "as clean as a whistle"; or to lose one's teeth by walking against a shelf in a somnambulistic frame of mind, and straightway to replace the anatomical fragments; to recapitate the headless trunk, and re-jaw the errant ivory by some process of mentation soon to dawn upon the initiated—surely this is a prospect worthy of our self-effacement; and we are quite ready to lay our heads upon the martyr-block of progress—metaphorically, I mean—only we want the undertaker to go, too; indeed, we prefer to have him go first.

Seriously, however, I believe that the doctor will never be defunct. There will always be teachers of truth and rightcousness, and it may not be too great a strain of our imagination to call them clergymen. There will always be those—and may their tribe increase—whose duty it is to teach justice and equity to the citizens of the state, and to judge them in rightcous-

ness; and why should we not call them lawyers? There will always be those who will teach the laws of health and life, and mitigate, by their medical and surgical skill, the accidents and afflictions of the race, and these will be doctors. The physician of the future will perform functions very different in many respects from those which are now regarded as the chief part of his work. His medical and surgical duties will dwindle to a fine point—fine, both in quantity and quality; for while such performances will rarely be necessary, they will be attended with a precision and effectiveness which is now seldom attained. Many of the diseases which prevail at present will be obsolete, and many more will be folding their tents in view of a speedy departure.

There will, nevertheless, be need of the doctor, and chiefly for

the following uses:

1. To teach the laws of health and life; i.e., he will be a doctor.

2. To supplement this teaching and advice, when necessary, with remedies to correct conditions which have resulted from inexperience or indiscretion in violation of these laws; *i.e.*, he will be a physician.

3. To mitigate the accidents of life, and overcome the effects, as far as may be, of infringements of the laws of life and nature, resulting in fractures, dislocations, poisonings, etc.; i.e., he will

be a surgeon.

4. The law of reproduction will make obstetrics a permanent

science and art. Thus, he will be an obstetrician.

In the future, the first class of work named here will be the doctor's chief employment, requiring most of his time and thought and energy. The second and third classes will be modified and minimized and perfected so as essentially to change their nature, and also their relative importance. Many members of the profession are already giving much attention to teaching at the bedside, in the lecture-room and, indeed, upon every convenient occasion. We search the wide world in vain to find a parallel for this self-sacrificing conduct. The doctor is almost never paid for tra hing, yet he teaches. If he teaches the people how to keep well, he cuts off a portion of his own income; yet he teaches. The public expect to pay only for the treatment of sickness; they do not think of paying for teaching. The detor is regarded as a health restorer, not as a health preserver. This is in harmony with that feeling that so many harbor, that the clergyman is chiefly a fire-escape—a sky-pilot, and not a teacher of righteousness. The same view applied to the lawyer makes him one who keeps us out of prison. All of these views are suited only to a barbarous age. The doctor is not a cobbler of broken-down constitutions, he is the health champion of the nation, and will come to be regarded in that light when we come to our majority.

When we see and feel that it is worth more money to keep people well than to restore their health, we shall be willing to pay the doctor for being a doctor literally rather than a last resort in sickness.

The future doctor cannot be described without taking into account the progress which is likely to be made by other people. When health and comfort and fulness of life are the lot of all, there seems no good reason to doubt that the human face and form and movements will become indescribably beautiful and graceful. The average man will be more intelligent than our most enlightened citizens. This fact, and the general tendencies to change in the work of the physician, will make some modifications possible

which would not be open to us now.

Important changes will take place in the distribution of work. When the nation becomes a society of brothers and sisters, and skill is the indispensable possession of every physician, it will matter little what doctor attends the patient in an emergency, and in all other cases the patient can have a choice. will be regarded as one of that vast societary army of heroes who make society great and progressive, and who will yet make it In return, he will have provision for his comfort, health, recreation, and regular rest, similar to those accorded to other heroes of toil, of which good and necessary things he is This will mean more to the doctor now so ruthlessly deprived. than anyone not a doctor can know. The nervous shock of being called up from refreshing sleep time after time in the same night, and night after night in the same week, becomes a threat to the mental as well as to the physical health, and is all the more absurd and criminal because it is unnecessary. There are in the medical profession, as in all other callings, a few cranks and oddities, but in a society which is cohesive rather than separative, where efficiency has no exceptions, and all are brothers, each of whose interests is the concern of all, there would be no hardship if, to a slightly greater extent than now, we were to have some community of doctors.

Something of a parish system would no doubt be found to be effective, and in its operation great advantages would be found to accrue to both doctor and patient. Ever y serious case would have at least two doctors to attend it, so that every visit to such a case would involve a consultation. At present, consultations are often out of the question, even when we most desire them. There is the advantage to the patient of having a multitude of counsel, and to the doctor of having help, counsel, and a division of responsibility. Besides, there is the vast advantage to society of having careful and regular observation made and record kept of the history of every interesting case for the guidance of the profession in the

future. At present, this is often impossible because skilled attendants cannot be obtained to keep such a record. In regard to the surgery of the future, little remains to be said. The specialization of surgery will give the very best service, while the division of labor will make it certain that the surgeons will have time to rest and enjoy life. All important operations will be done in hospitals, which will be thoroughly equipped, so that the essentials of skilful, clean and scientific surgery will be available in every case, no matter who the patient may be.

The doctor, in his function of teacher, will be charged in the future with the task of giving instruction to young people in the art of preserving the health, so as to secure the highest degree of vigor in the whole community. This will mean that doctors will be appointed to attend to the teaching of hygiene and sanitation in all schools, and in this function they will replace the present teachers who have never had a training in the subjects of

physiology and anatomy, both descriptive and practical.

One subject in which careful instruction will be given, pertains to the laws of sexual life, there being at present most lamentable ignorance in reference to all that sphere of human interests. Before reaching a marriageable age, every member of society should have information such as would save him from becoming a victim of his own ignorance or of the intrigues of dishonest advertisers.

Besides visiting the schools, it will be the doctor's duty to call at the homes of the people, to investigate their health and, wherever disease is found to be approaching, to forestall and prevent it if possible. Thus, typhoid fever and all other diseases which attack the body when in a lowered state of vitality will be greatly

diminished in frequency or entirely abolished.

The personal element in the doctor of the future will be a potent factor of progress. Societies are, after all, aggregations of individuals, and as national rightcousness, which is but right societary relationship, can be secured only by personal effort, it is clear that personal development and the perfection of the individual is the primary element in the process by which the perfection of society is attained. The personality of the doctor is, therefore, a very important element in the problem of human progress. As a man of thorough education, high attainments and deep sympathies, he will be one of the first to embody those qualities of power and influence which improve society and, by making men thoughtful, help to put them into the highroad to freedom.

In the future, immeasurably more than now, the doctor will be a man whom it will be a pleasure to meet. His comfortable presence, his sunny smile and hopeful words, his keenness of perception and breadth of culture, his profound scholarship and his greatness of heart, will make, altogether, a personality of confident

strength and helpfulness. Health will be shed from his person. He will move in an atmosphere of light and cheerfulness, so that his patient will be invigorated, spite of all opposing influences, by the irresistible assurance of his words and the quiet forcefulness of his character.

All the evidence that bears on the question goes to prove that health is more contagious than disease. Some of the present generation are evidently immune from this beneficent contagion, but probably in the coming time the prophylaxis of disease will be perfected, and all unnecessary sickness be a record of the past. We may hope that the whole community will contract an epidemic vigor of the most pronounced type, both mental and physical, and that society may become wholesome, and sickness be lonely in our midst, being far from home. In such a community we shall not be able to be sick; we shall not be able to be gloomy; brightness and comfort and peace and plenty and power shall be the attainments of all, for justice will be epidemic in society.

Such a beautiful picture is not to be realized in a day, nor in a year, nor perhaps in a decade; for these things must come by education and evolution, as all good things come. Nevertheless, the forces that were of old unrecognized, and therefore never put to work, will be harnessed; many new methods of their application will be discovered; whole armics of new workers will volunteer in the service of humanity, and the work will move with a constantly increasing impetus—an harmonic progression—which will

outrun the most sanguine expectation.

I am sure that the doctors will be among the first to hail the era of justice and brotherhood and peace. Till then, we are the pitiable victims of a system for which we are all responsible, until we learn a better way and then "live the truth we know."

Filtered Milk.—Milk is filtered through sand in several European cities. By this process all dirt is removed, the number of bacteria is reduced one-third, and the quantity of mucus and slimy matter is greatly lessened, while the loss of fat in new milk is only slight. The filter consists of large cylindrical vessels divided by horizontal perforated diaphragms into five superposed compartments, of which the middle three are filled with fine clean sifted sand into three sizes, the coarsest being placed in the lowest and the finest in the topmost of the three compartments. The milk enters the lowest compartment through a pipe under gravitation pressure, and after having traversed the layers of sand from below upward, is carried by an overflow to a cooler fed with ice water, whence it passes into a cistern, from which it is drawn direct into the locked cans for distribution.—The Dietetic and Hygienic Gazette.

# Pharmacology and

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(ENG.)

Therapeutics.

#### CLINICAL NOTES ON EUQUININE.

BY W. R. D. BLACKWOOD, M.D.

For many years past a substitute for the ordinary and much abused quinine, in all its various salts, has been sought, but with not much success. Many of the other salts obtained from the cinchona bark have been used as a remedy in such diseases as the main ingredient of the bark seemed invaluable in with more or less resulting disappointment. Every one knows that quinine has its defects, and some know that it has its dangers, but, all the same, it has been poured ad libitum into the stomachs of millions of victims who did not need it, and who suffered therefrom in maybe only a temporary inconvenience, or, too frequently, a real injury—for instance, a renal damage amounting to hematuria, or an acute otitis media, ending in permanent deafness.

The craze for ingesting quinine in every possible disease has caused an enormous amount of nervous disorder among business men, who keep the drug in their pockets just as they do car tickets. Many of the most serious cases which come under my notice are due to this drug. I feel safe in asserting that quinine causes more trouble to the community than morphine, although we do not hear so much about it. Drinkers and topers of opium and cocaine are spotted by most of their acquaintances, but the nerve tremor due to the salts of cinchona are put down to overwork, etc. Even medical men are frequently deceived by the symptoms, for I have had many cases sent to me where the cause was never suspected by the family doctor.

Now, as it is imperative at times that something which has the power to do what quinine will do is to be used as a remedial agent, it is a problem to find a substitute if there are reasons militating against the use of the cinchona salt, and what are we going to do For nobody can question the fact that an intermittent must be treated by such agents as will combat the return of the chill, the fever and the ensuing debility.

No one can dispute the fact that for a long while we had to rely upon quinine as a febrifuge of great worth, and although it

has its defects, it also has its virtues.

To-day we possess in the coal-tar products many efficient products which are invaluable in this direction, yet for many reasons they cannot always be employed. A main difficulty is the tendency to depress the heart, notwithstanding the addition of caffeine, ammonia or some such stimulant to the heart action. Most of our patients can be managed by careful attention in this direction, but there are cases which cannot be handled with due care even if the doses are small, and the added difficulty exists that all coal-tar drugs must be given in amounts sufficient to make a decided impression at once, otherwise they fail; they are useless, worse than useless, for time is lost.

Just here Euquinine comes in. Euquinine is quinine; it is not a substitute. Chemically, it has a hydrogen atom removed, for which is substituted a molecule of ethyl-carbonate. It is, therefore, a cincho-chlor-carbonate-ethyl. The taste is not at all bitter; it is not so even when retained in the mouth for a minute

or so; it is the so-called "good quinine."

In small needle crystals it melts at 203 Fahr. It is not very soluble in water, but freely so in alcohol, ether and chloroform. The muriate is the most soluble, next the sulphate and the least the tannate. I do not think that the latter is reliable. It will not produce the effect for me that others believe they get, and if soluble in water (or nearly so) then it is not worth while to use it, unless treated with some other acid which would, of course, change its nature.

It can be given in milk, soup, wine or malt extracts. It will depress the temperature very readily and always without much effect on the heart action, but I have had no experience in heroic doses, as it has served my purpose in moderate ones of from two to five grains, it being about twice the strength of ordinary quinine. It has been administered in amounts up to 30 grains without bad results. It is, however, well not to try this plan in any case, for the same bad habit might thus be assumed as with quinine, for much of the harm attributable to the latter salt came from jugulating congestive remittents, intermittents and the like in those malarial-stricken districts where quinine was the breakfast, and, at times, the other meals likewise.

I do not propose to give detailed cases where Euquinine was used, but simply will refer to the results in such instances as have

come under my notice personally.

In high temperature from any cause this medicament is quite useful, much more so than the ordinary quinine, and specially, so with children and infants, who never forget the bad taste of such drugs as were common to our boyhood days. Some children cannot be managed with or without force once they have been outraged with some of the nasty drugs ordinarily used, and this is of great moment at any time, but largely so where the illness is serious, particularly in the nervous maladies where struggling or excitement may turn the outcome from safety to death.

In the heat of typhoid Euquinine does nicely, so in pneumonia, and very satisfactorily so in pleurisy, where not only the fever

but the pain is controlled nicely.

In the chest pains of phthisis this remedy is an appropriate article, being at once a tonic, an antisudorific and a remedy for

the enhanced temperature.

In intercostal neuralgia Euquinine generally acts well, being apparently in this disorder better than for general neuralgias. I have not found it to do as well for the common neuralgias of the head, face and joints, yet with a small amount of acetanilid, bicarbonate of soda and caffeine (alkaloid, not one of the salts) Euquinine will give considerable relief, and the cinchona salt certainly has some part in the outcome, for, with equally small doses of the antithermic without Euquinine one does not attain the same result as with it.

Combined with phosphoric acid this drug makes a good tonic, and strychnine may be added if desired. A palatable method is to dissolve the dose required in a mixture of cardamon compound with aurani syrup (red) or elixir of curacoa. Another way is to use as follows:

Ŗ.	Liq. arsenic chlor	3 iss
	Euguinine	gr. xlviii
	Tr. lavand, comp	ã j
	Syr. vanillaq. s. ad.	ž iij

M. Sig.—A teaspoonful in water every three hours or as needed.

In closing this paper I wish to enforce the fact that the article under consideration is not a substitute for quinine, it is quinine, molecularly altered by treatment in process of manufacture.

Our friend, Dr. Drodnax, whose lucid ideas and facile pen makes his writings so enjoyable, is doing a vast lot of good in bringing quinine back to its proper place. He is probably doing more than that, for, like the bleeding furor of long ago, the pendulum swung too far, and it has hardly yet gotten back to where that invaluable agent, venesection, really belongs. People die from pneumonia when they could be saved by timely and moderate bleeding, and so in apoplexies. Many should be saved who are lost by men who never saw a vein opened purposely as a remedial measure.

Quinine has slain its thousands who needed not a grain, yet it

has its place in therapeutics just like cod liver oil—plain, medicated or emulsified in whatever pasty manner—which has killed more victims of phthisis than it ever helped to get well, for once the stomach is disordered it is all up with the patient. Quinine is indispensable at times, and this new quinine is apparently a good article to use where cinchona salts are indicated, for the reasons given above. Much more could be said in its favor, but space is valuable in the Summary, and condensed papers are what the busy practitioner wants. Try Euquinine, my readers, and see for yourselves.—Medical Summary.

Rebreathed Air as a Poison per se.—Dr. John Hartley (Lancet, September 17th, 1898; Journal of Laryngology, Rhinology and Otology, April, 1899) says that the modern treatment of phthisis is made up of three essential factors: 1. The discontinuance of the supply of bacilli from without. 2. The abundance of nutritive material for the tissues. 3. The supply of an abundance of fresh air uncontaminated by the products of respiration. This seems to mean that the tissues, if not too enfeebled, may be trusted to deal with the bacilli already present if their metabolism is kept going at high pressure. Rebreathed air and sewer gas should not be looked upon as mere carriers of accidental poisons, but as poisons per se. Hence the writer enters a strong plea for thorough ventilation—a different thing from the small trinkle of air supplied by the tiny "ventilators" which are so hopelessly inadequate.

Liberty and Tuberculosis.—It is the conditions conducive to consumption that we have to combat, not the infection only; and thus we are brought face to face with an enormous question, namely, that of altering the conditions of life of man and the domestic animals. The policy of slaughter is now being much discussed, and there are those who would go needle in hand testing all our herds with tuberculin, and slaughtering those found to be infected. That is the extremest view; but what would even such measures do while the cows are kept in unhealthy byres damp, ill-drained, devoid of light and ventilation—in which they remain imprisoned without exercise so long as milk will fler? These are the conditions which lead to tuberculosis, and killing a few thousand cattle does nothing to alter them. And so with mun; removal of the infected, care as to expectoration, the boiling of milk, and all the rest of it, will do much. They are all useful measures, but they do not alter the conditions of life, and to alter the conditions of life is—well, is almost a social revolution, and one involving the loss of much that goes by the name of "liberty."  $-The\ Hospital.$ 

## · Selected Articles. ·

#### THE LOCAL TREATMENT OF HEMORRHOIDS.

THE local treatment of external piles may be divided into the operative and the non-operative. The first is the preferable plan in nearly all instances. If, however, the patient refuses to submit to the same, recourse must be had to local application during the acute inflammatory stage. It is by this method only that we may expect a radical cure. It may be accomplished by (a) simple incision, or by (b) excision, or by (c) excision and primary suture of

the cutaneous edges of the resulting wound.

(a) Simple incision is applicable only to the venous form, excluding the simple varicose variety, which latter, unless inflamed, hardly requires operative interference. The operation of incision consists in shaving the hair, cleansing the parts thoroughly, and rendering them as aseptic as possible; then anesthetizing the tumor by means of a hypodermic injection of a 4 per cent. solution of the hydrochlorate cocaine, of which ten minims usually suffice; or by a spray of ethyl chloride, which, however, hardens the parts so that the cutting must be done with a very sharp knife; or by freezing the pile with salt and ice, and then catching the tumor between the thumb and forefinger of the left hand, transfixing its base in the direction of the radiating folds of the anus with a curved bistoury, and cutting out; at the same time, by gentle pressure, the clot or clots may be extruded. The subsequent treatment consists in dusting iodoform, or aristol and boric acid, equal parts, or iodol, freely over the raw surface, being careful to see that the same is finely powdered and not lumpy; then applying a piece of lint that has been soaked in carbolized oil to the bottom of the wound, to prevent the sac refilling with blood and to enable healing to occur from below, instead of running the risk of the edges of the wound only uniting, and the formation of a superficial fistula thereby resulting. The patient should be advised to keep quiet for a few days, or, at least, not to take any active exercise. It takes about ten days for the healing process to be completed, and usually the relief from pain is immediate and complete.

(b) Excision is the form of treatment generally employed for the cure of all the various forms of external hemorrhoids. The technique is similar to that described for incision, with the exception that the pile is grasped by some suitable instrument, such as a hemostat, and the tumor is removed in its entirety by means of a pair of seissors curved on the flat. In some instances a small artery may require a ligature. If the operation be properly performed, there will be none of the dangers (so frequently mentioned in the text-books) of the formation of a stricture. Iodoform, or some one of the combinations of the sterate of zinc or nosophen, is to be freely dusted over the raw surface, and a firm pad of gauze

and cotton and a T-bandage complete the dressing.

(c) The essential difference between this method and the one just described consists in the close apposition of the wound by carefully-buried silkworm gut sutures. The following points might, however, bear emphasis. The tumor is anesthetized, and then grasped on either side of its long axis by hemostats. The accessary number of sutures are now inserted, care being taken to place them beneath the base of the pile, so that when the latter is excised the stitches will not be cut or exposed in the wound, but buried.

This plan of dealing with external hemorrhoids has proved most satisfactory, not alone to me, but likewise to the patient. They get well much quicker and suffer less annoyance than when the parts are left to granulate. The sutures are removed on the third day. In stout people I am in the habit of removing the stitches within forty-eight-hours, for fear of the tension producing a fistulous track.

Non-operative or palliative treatment consists primarily in keeping the parts thoroughly cleansed by bathing with warm water and castile soap, and in applying some soothing and astringent lotion during the acute inflammatory stage. The Messrs. Allingham advise for this purpose the following:

R. Strong subacetate of lead solution . . . . . f \( \frac{7}{3} \) i
Tincture of opium . . . . . . . . . . . f \( \frac{7}{2} \) M.

Sig.: One teaspoonful of the lotion to be mixed with one wineglassful of milk, and applied frequently to the anus.

Another formula which I have found very useful is as follows:

Sig.: Apply often to the parts.

Hot or cold applications are often of service. Charles B. Ball, F.R.C.S., considers the local application of a mixture of the extract of belladonna and glycerine, smeared over the anus, and followed by a warm stupe, the best palliative treatment for external hemor-

rhoids In addition the bowels should be freely moved, and a light, easily-digested diet, with rest in bed, prescribed. Any of these remedies will, as a rule, cause the inflammation to subside within a few days; but usually a thickened tag of skin is left, which is liable at any time, on the slightest provocation, to become inflamed.

#### THE TREATMENT OF ASTHMA AND HAY FEVER.

THE treatment of asthma consists of: (1) Arrest of the paroxysm; (2) Prevention of the paroxysms by measures calculated to annul the effects of exciting factors; (3) Renewal of the pathological conditions forming the basis of the paroxysms.

Dr. Jas. F. Goodhart, of Guy's Hospital, says: "It seems impossible to doubt that asthma is one of those nervous actions of which we see so many examples in our economy, and which have been well called by Dr. Edward Liveing paroxysmal neuroses.

Epilepsy is one of those; some forms of insanity are others; migraine is another; asthma is another; and so on. Now, all these more or less obey this law, and the more they come the more they may. Nervous actions, which in their essence and imitation are not abnormal by excess of energy, or of frequency, or of both, become abnormal; and ultimately a bad habit becomes fixed. Surely both in epilepsy and asthma there is much of habit in the intractability of the disease, and if control is to be gained over either it must be by catching it in the earlier days of its appearance, and by arresting it before it becomes confirmed. We think that we can sometimes gain some control over the convulsions of infancy; we can perhaps keep them at bay sometimes, and so stop the child from becoming epileptic. But what case is more hopeless than that of the confirmed epileptic, even though he be persistently stupefied with bromides?

The case of asthma is a parallel one. It has been contended that it is a disease rather of childhood than of adult age; and that to pay attention to this fact and to the suggestions that flow therefrom, offers the best possible chance of stopping the attack, and of preventing the fixation of the habit and the establishment of chronic asthma. The chronic asthmatic is almost as hard to cope

with as the chronic epileptic.

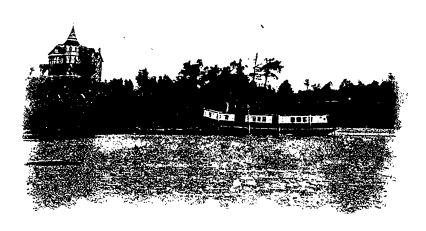
There are two methods of dealing with the asthmatic. On the one hand, we may attempt to make the environment of the patient conform to the conditions required by the individual; or, on the other hand, to harden the individual, to widen his range of accommodation, and so to make him less susceptible. And in the matter of drugs somewhat similar alternatives present themselves; we may either give sedatives to the over-sensitive nerve structures

concerned, or give drugs, if such there be, to raise the level of nervous action to that higher platform that shall enable the perceptive centres to take less heed of their unnatural worries.

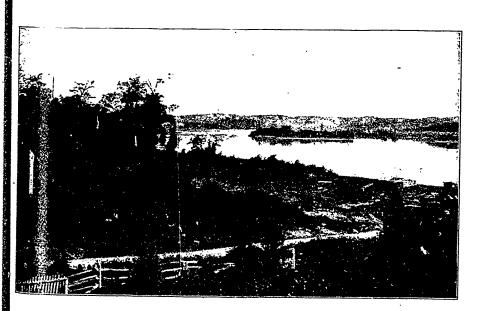
But the asthmatic paroxysm is so distressing that almost always the treatment of it usurps the first place; and too often this urgency of the situation upsets the perspective. If we are called to a patient in the stress of a paroxysm of asthma, clearly, on all accounts, it must be arrested as quickly as may be; there is no time to be very careful and consistent about ways and means. And the quickest way to relieve a paroxysm of asthma is to make the patient inhale some fume or other, as of nitre, nitrite of amyl, or chloroform; or to give him an injection of morphia or a dose of chloral; indeed, as we all very well know, doctors see paroxysms of this kind less often, because various patent powders for creating fumes hold the field so largely that most people do without us, and

stick to their patent remedy.

Thus the treatment of asthma too often becomes a repeated sacrifice to the paroxysm; and the patient drags along, thankful for the small mercy of temporary freedom from his troubles, and easy in his mind if he can carry in his pocket protection from those that are to come. But this plan of campaign is ultimately a most disastrous one. It unquestionably produces temporary ease, but what happens afterwards is this: The vapor, on reaching the mucous membrane, stupefies or exhausts the nervous centres, and stops the spasm for a time. But at the same time some of these remedies, by stimulating the mucous membrane and provoking the flow of mucus, make the local erethism rather worse than it was before. The more sedative kinds of inhalations do but appease by offering bribes to vicious nervous influences. by the nervous centres wake up again to find matters no better, rather the contrary; and then on comes the spasm again, and the whole process is repeated; and, with each repetition of the cycle, the nervous centres, as their nature is, become more exhausted of more irritable, their sleep is shorter, their spasm is more and more quickly repeated, and the poor patient ultimately lands himself, with perhaps some lessening of the severity of each paroxysm, in a more prolonged or persistent stuffiness hardly less distressing to bear; all day long he appeals to his powder, and becomes in fact the slave of an appetite that he has whetted and that he can not Thus ends the chronic asthmatic who betakes himnow control. self to vapors. But this is not all, for by common consent a repeated application of some of these drugs, whether by making matters worse in the lungs, or by worrying the cardiac ganglia or what not, tends to dilatation of the heart, and is equivalent to a good many nails in the coffin of the asthmatic. dread of the paroxysm itself is carried into the preventive treat-



NEAR HUNTSVILLE, LAKE OF BAYS DISTRICT.



PENINSULAR LAKE, LAKE CF BAYS.

ment of the disease, and the patient is submitted to what may be called the glass-case treatment; that is to say, the temperament of the patient is ignored, or not considered of importance, and the disease is supposed to be brought on by chill. If he be wealthy and adventurous, he fights his environment by running away, and thus he may perhaps get along pretty well. If the patient be a child, it is probably kept in doors except in the finest of summer weather; yet, nevertheless, the history too often is that "it has caught another chill "but no one can say how. At first perhaps the child had the whole house to roam about in, but, as "the colds" recur, it is confined to one room with a south aspect; and yet things do not mend. So the doors of the room are carefully screened, the windows perhaps pasted up, and still the success being not all that can be desired, extra clothing may be piled on. And ultimately the doctor finds somewhere hidden under this heap of precautions a pale, moist, flabby, steamy thing, with big eyes, thin cheeks, protruding ribs, and a more or less general bronchitis, a case of "successful" management, because no attack has occurred for some weeks! But is this to be called success? This is to nurse the powers into imbecility, and the inevitable result is, that the first time the patient puts his head outside the door a fresh cold is "caught," and a fresh term of imprisonment is ordered. I venture to say that if asthma is to be prevented at all, it will never be kept at bay by hot-house treatment such as this. Yet unfortunately, it is easy to utter destructive criticisms of this sort, but difficult to point to a better way. I think there can be no doubt that the first requirement for the asthmatic is to put him into a climate in which he can be much out in the air. But there is the difficulty; we know so little about climate; and asthma is so individual a disease. No one can foresee in a particular case whether this place or that will be suitable; and, when the issue is doubtful, experiments in moving invalids about are never likely to be made with any great thoroughness. But for most asthmatic persons there is generally for each his own place or places where he is better or well. Thither he should be sent, at any rate, for a time. This place may be at the sea, or it may be inland; sometimes in a dry place, sometimes a humid; often even it is a large town: "In a great majority of cases an urban air is the air that cures, and of a city air that seems to be the best which is the most urban—the densest and smokiest" (Salter); but wherever it be, the patient should be out and about with very little restriction; and an attempt should be made by this means to render the morbid circuit less prone to discharge. Of games and sports, all should be encouraged that are outdoor and healthy and invigorating.

In diet, it is necessary to be careful, but not too much so. I

is very easy to give a number of restrictions about food, and thus to make matters worse; but asthma certainly often does seem to start from a meal that has not been digested—one which may have been too large or of an improper character, or taken at some irregular hour; the points to aim at are good, plain, light food in moderate quantity and slowly ingested. The asthmatic, particularly children, are often deprived of potatoes, of starchy puddings, jam and sugar, and goodness knows what else, and on the other hand are put on various meat juices and other good things in the wrong place, so as to remove all rocks of offence from the path of their pneumogastrics. But "if these things be done in the green tree, what shall be done in the dry?" What chance has such a child of reaching old age? Any food that is plain and wholesome, and not known to disagree, may be allowed. It is a good thing to have the chief meals early in the day, when digestion is vigorous; therefore breakfast and lunch—an early dinner—should be the main meals; anything taken later must be small in quantity and of the most digestible kind. All meals for the asthmatic should be small ones; the stomach should never be distended. The bowels should be kept carefully regulated and sufficiently open by taking some saline aperient, or other simple laxative. Every effort should be made to keep the patient in as healthy and physically fit a condition as possible. A tepid or cold bath should be taken in the early morning and the living room well ventilated.

These must be the general principles upon which to deal with the asthmatic; and the more unhesitatingly, the younger the patient, and the earlier in the course of the disease that he comes

under treatment the better.

In considering the treatment by drugs, two divisions of the subject naturally suggest themselves; namely, those medicines that are useful in preventing asthma, and those which are so when the actual attack is threatening or in progress. Again, a distinction must be made between the cases which seem to be pure nervous asthma, those which have any degree of persistent bronchial catarrh, and those already mentioned, which come on in later life, and may not irrationally be attributed, on the one hand, to blood conditions that as a group may for convenience be called gouty, and on the other, to degenerative changes in the tissues.

As a preventive remedy in the pure form of asthma, no drug is in my opinion equal or nearly equal to arsenic. It should be taken for three or four weeks, then omitted, and then resumed after an interval of equal length; and so on for three or four courses; and the drug should from time to time be resorted to in periods when from any cause the nervous centres begin to show signs of lowered tone. I have not made much use of phosphorus, but it has been spoken well of, and it might also upon occasion be

of value; and so likewise with other good nerve tonics, such as

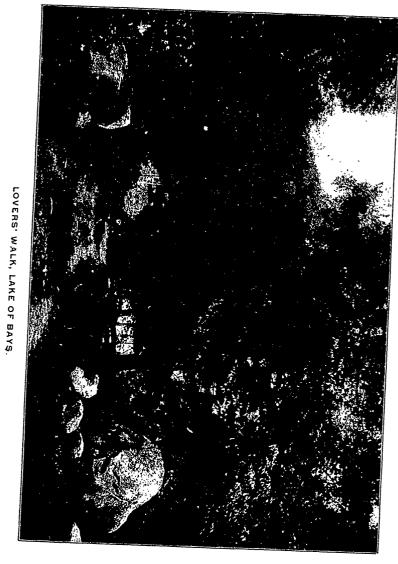
bromides or hydrobromic acid.

The two chief drugs from which much benefit is often derived are strychnine, in three to five drop doses, given steadily for some days, and the iodides, which often prove of great value. Perhaps the one acts as a stimulant to the respiratory centre, the other as an expectorant. For the asthma that occurs in later life, an eliminant treatment is on the whole the best. It is in such cases that blue pill and colocynth in moderate doses once or twice a week are useful, or saline laxatives with careful attention to and restriction of diet. In these cases, again, iodide of potassium, perhaps by a depressing effect upon the arterial pressure, will often help very considerably.

My friend, Dr. Kingscote, maintains that the asthmatic state is much benefited by brine baths and systematic exercises, such as have been elaborated at Nauheim, for the treatment of certain forms of disease of the heart; one can well understand that means of this kind, by stimulating the circulation, and facilitating the flow of blood through the lungs, may prove of much service.

To relieve an attack, or the semi-asthma that forebodes or lingers after an attack, other means may be used. In the threatening of an attack, or in the dyspnea that lingers when the more acute symptoms have subsided, many drugs have been tried, and at one time or another succeeded. Of these I should put first a combination of iodide of potassium with the ethereal tincture of lobelia; five, ten, or even fifteen grains of the one, and ten to fifteen minims of the other, seem to bring relief when other things may have failed. Some prefer stramonium to the lobelia. late Dr. Hyde Salter thought very highly of the Datura stramonium and the D. tatula; their best effects are observed when smoked like tobacco; but they may also be given in a pill, extract, Sometimes a combination of iodide of potassium or tincture. and chloral hydrate has been effectual. It is under such con-· ditions as these that the Euphorbia pilulifera and grindelia robusta are most useful; the former may be given in a decretion, a wineglassful twice a day; or in tincture, ten to thirty minims, twice or three times a day, or as often as may be requisite. grindelia is in the form of a liquid extract, and is given in similar doses to the tineture. This drug is also recommended at the onset of an attack, and half-hourly doses until relief has been attained. I have known it to produce decided relief, but I have not, upon the whole, been very successful either with this drug or with Euphor-In the thick of an attack, the remedies most in use are inhalations of various vapors; and of these perhaps the commonest and one of the most harmless, is blottingpaper soaked in nitrate of potash, which will often relieve, and sometimes very conspicuously.





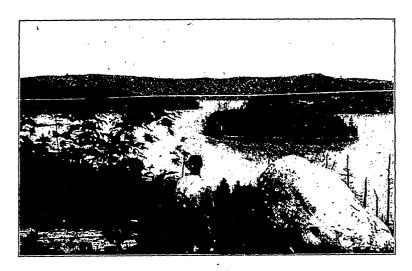
There are many other powders made for the production of fumes. Some are stimulating, and seem to act by provoking cough and the free secretion of mucus; others, and these I believe the less harmful, are of a sedative nature. Some of them are made into cigarettes for smoking, and most of them contain stramonium in some form.

Of inhalations available for more strictly medical uses, three may be mentioned: Nitrate of amyl, iodic ether, spoken well of by Dr. Thorowgood, and of course chloroform. In severe cases, the last named may be of the greatest possible value, although its effect is apt to be but transitory, and the attack may resume its severity as the stupor of the drug wears off. Of all the other drugs that have been recommended for the relief of the paroxysms. morphine probably stands first; a hypodermic injection of a sixth of a grain will often produce almost immediate diminution of the violence of the dyspnea, which gradually ends in complete cessation of the spasm. Pilocarpine is also a valuable drug; a tenth to a quarter of a grain may be given hypodermically; a free secretion from the mouth and fauces is the result, the spasm being thus Sometimes the patient is sick, a thing by no means undesirable; for an emetic is one of the means advocated for arresting an attack, and no doubt sometimes with marked success. combination of bromide of potassium and chloral is also a good sedative to give at the onset of a paroxysm. Belladonna, hyoscyamus, and conium, though not of so much value, are all of use in their way; tobacco is also said, by virtue of its powerful depressing action, to be a useful palliative drug. I have heard it said of pilocarpine that the remedy is worse than the disease, and, considering the distressing nature of the malady, this is a serious attack upon the benefit derived from it. If this be true as regards pilocarpine it must be still more apt for tobacco, which produces a dreadful malaise, and is a difficult drug to control in those who are unaccustomed to its use, in whom only it appears to have the effect wished for.

Of stimulants, too, coffee and alcohol may be mentioned. Strong coffee is indeed a popular remedy that has often given relief, as also has eitrate of caffeine. As regards alcohol, I have no personal knowledge of any special virtue, but Hyde Salter says of it, that while in many cases it does not do much good, in some it has a most powerful effect, particularly when all other remedies have failed. It should be given hot and strong.

Hay fever, or hay asthma, is in the opinion of many a pure form of asthma, and with this opinion I myself coincide; it is accordingly more or less amenable, as are other forms of asthma, to treatment by drugs of the same character. I refer more particularly to arsenic; and I should maintain this even for nasal cases; it relieves the itching and smarting of the eyes, the aching of the frontal sinuses, the itching of the nasal mucous membrane and of the nose itself, the sneezing, the watery discharge, the occlusion of the nostrils, the dryness and irritation of the lips and throat, but Karl Binz and others have maintained that local remedies, used upon germicide principles, give great relief in many of these cases; and those who have worked in the special department of diseases of the nose and throat declare that, by paying special attention to the morbid erectility of the nucous membrane over the spongy bones of the nose, this disease may be much reduced. Binz advocated the irrigation of the nostrils with a solution of quinine; Sir Andrew Clark suggested some carbolic preparation; and of late many have tried the application of solutions of cocaine, more upon alleviative than upon curative principles, perhaps; unless alleviation be an earnest of cure.

No one can doubt that these various measures are all useful in their proper place, nor can anyone doubt that they have their For instance, I saw but the other day a lady who for the discomfort arising from the frequently recurring turgidity of the nostrils, which is characteristic of hay fever, had betaken herself by medical advice or without it to the use of cocaine locally. Accordingly, more or less both by night and day, she would pack her nostrils with a solution of cocaine, of which one grain at each time was put into each nostril; and thereafter, by means of hawking and spitting, and other contortions of her pharyngeal muscles, the solution was spread all over the affected area, and temporary ease was obtained. At least six grains a day were thus disposed of and sometimes more. The position to take with regard to local treatment is this, as it seems to me: the local symptoms are not the disease, and therefore, however necessary it may be at times to relieve conditions that cause great distress by means of this kind, they may do harm by inducing other morbid changes in the part, and conditions that were but temporary may thus be rendered per-For instance, a paroxysmal sneezing will stop immediately under the influence of some diverting train of thought, just as asthma will stop under any sudden and powerful mental All must agree that if there be any actual disease of the mucous membrane, whether due to the existence of polypus, of a deflected septum or what not, it must be advisable to get the mucous surface into as healthy a state as possible, so as to remove one obvious source of possible irritation. But for cases of asthma in which there is no definite nasal worry, the question must at any rate be considered an open one. If the neurotic origin of the disease be accepted, as I think it must, no one can rest content with the treatment of a peripheral symptom. Still, if it can be snown that a large measure of relief is thus obtained, such an



RABBIT BAY, LAKE OF BAYS.



ROUNDING A BEND, MAGNETAWAN RIVER.

experience must of course be utilized upon the principle that half a lost is better than no bread. The difficulty of arriving at any sound conclusion as to the value of such treatment lies in this, that the specialist and the physician see the cases at different times—the one in the first flush of that post-operative quiescence that we all so well recognize as a characteristic of nervous ailments; the other, when that quiescence has passed off, and the old habit has resumed its sway. I have known some patients to be apparently benefited, but others who have not received any

adequate reward.

Thousands of people throughout the habitable globe suffer annually from the most distressing and annoying ailment, hay fever, many of whom are not convalescent for weeks after an attack of the malady, and often days of rest and recuperation are necessary to get back one's strength and accustomed health. ease is also called by other names, such as autumn catarrh, hay asthma, and rose catarrh. In some cases it comes on in June, with the advent of the roses; in others with the new-mown hay; but in the vast majority during the month of August. plaint usually continues until frosty weather, and is aggravated by dust, by riding in street cars, and by the pollen of hay or Few in Canada are aware that almost within a stone's throw (comparatively speaking) of their own doors, lies a locality rich in beautiful scenery, replete with historical interest, a land where health and pleasure go hand in hand, and where perfect immunity from hay fever is assured. This region is the Muskoka Lakes District and the Georgian Bay District combined, situated in the "Highlands of Ontario," the former one hundred and twelve miles north of Toronto, and the latter occupying that vast area west of the Muskoka Lakes District, including the thirty thousand islands of the great eastern arm of Lake Huron, and which are rapidly coming into prominence throughout the continent as the Mecca of the tourist and a haven for those suffering from the malady above mentioned.

A change of climate for the relief of the complaint is always commendable where such weeds and flowers as ragweed, goldenrod or honeysuckle are not indig: nous, as these and many other flowers and grasses aggravate the disease. Many localities have been recommended, such as mountainous regions and the sea coast, but generally at these resorts a great deal depends upon the vagarics of the wind, and results are not always satisfactory, as if the wind should blow off shore, as it frequently does, there is no relief.

In Muskoka and Georgian Bay Districts the conditions are different, and it is of no consequence which way the wind blows. As there are very few farm lands in evidence, and no cultivated fields, golden-rod and the other flowers and grasses are conspicuous

by their absence.

The Muskoka Lakes District covers an area of vast extent, and comprises some eight hundred water courses, including lakes, rivers and streams, and it is at an altitude of one thousand feet above the sea-level. Those in search of health will find the purity of air and general surroundings most beneficial.

The most satisfactory treatment after all is climatic. The only effectual remedy for hay fever consists in removal to a region which is exempt from the disease. By going to such a locality before the attack occurs, and remaining there through the critical period, complete immunity from the disease may be secured.

The time of departure and return must be determined by the previous experience of the person in regard to the date upon which his former attacks have commenced, as the disease seldom comes on exactly the same day every year, but often varies three or four days. The sufferer should be in a place of refuge at least a week before the usual time of attack, and should remain there until he can return in perfect safety.

This is usually about the middle of July, in the early or rose cold, and after the severe frost, severe enough to kill the vegetation,

in the autumnal form.

In fact, the person affected must find a spot where the exciting causes of the disease are absent. The atmosphere in the Muskoka Lakes and Georgian Bay Districts is completely free from the irritating stimuli which induce this painful and distressing affection. The country is covered by forests and interspersed with innumerable lakes, and is not an agricultural country. The geological formation is Laurentian (granite); there is no dust in the air. The water is soft and free from lime. The general elevation of the district is about one thousand feet above sea-level.

Many of the prescriptions and medicines that can be given and taken by the patient suffering from hay fever are more or less useless, and are the means sometimes of only affording temporary relief. However, there is an easy escape from the malady, and thousands of persons have already availed themselves of the opportunity offered in the beautiful and attractive regions situate in the Highlands of Ontario. Each season hundreds of people go into these districts to find relief from this annoying disease, of whom some have been making it their summer home for years, and others are attracted to this vast pleasure-ground by what they had heard from friends as to the complete immunity from hay fever existing there.

A sufferer from hay fever, in an article on the same subject in the American Angler, January, 1899, writes: "Of course thousands of remedies have been offered and tried, but the time and money spent in the trial has generally been wasted, for a partial relief, if any, could only be obtained, and the causes yet remained.

Therefore, in place of heroic sufferings, the only course for a subject of hay fever to pursue, if relief is desired, is to flee from the infected atmosphere and deleterious influences to regions where the air and surroundings are free from the sources of his trouble."

The Muskoka Lakes and Georgian Bay Districts are totally exempt from the causes of the trouble, and immediate relief and a decided cure is assured all who visit this beautiful locality. The main considerations in choosing these regions, in preference to other localities, are:

Relief and total immunity from hay fever.
 Easy accessibility and moderate hotel rates.

3. Good postal service, express and telegraph, railroad and steamboat facilities.

4. Beautifully secluded and charming camping grounds.5. Good hotel accommodation on all the principal lakes.

6. The adaptability of the surroundings to meet the various

or varying modes of invalids, tourists, or sportsmen.

7. The wooded shores of the lakes and rivers, principally balsam and pine, is also one of the accountable reasons for the cura-

tive and healing properties in the atmosphere.

This incomparable range of waters, studded over a vast area like crystalline gems set with emeralds, in one of those gorgeous pictures of nature which defy the power of creative genius to depict, and baffles the skill of brightest imitation, is without doubt the tourist's Mecca of North America, and a land which must be seen to be appreciated. Restful and peaceful pleasures are to be found on every hand, while the eye and heart are enjoying the beautiful scenes spread out before one, while comfortably ensconced on the deck of one of the well equipped and handsomely fitted up steamers which ply these waters, or while comfortably lounging on the verandas of the well appointed and unique hotels throughout the district. In fact, on every hand stands forth nature in all her untouched beauty and magnificence, to charm the heart of the beholder.

The localities mentioned, though rich and varied in their countless attractions for the pleasure-seeker and tourist, are also full of interest for the angler and sportsman. The waters of the lakes teem with the gamiest of bass and the weightiest maskinonge, while speckled and salmon trout are numerous in some parts. For the hunter, deer, bear, fox, ducks, partridge, and other game can be found in goodly numbers.

What has been stated in this article regarding the therapeutic effect of the climate of Muskoka in the treatment of asthma and hay fever refers as much to many other pulmonary complaints,

such as chronic bronchitis.

The hotel accommodation at Rosseau, Port Carling, and Beaumaris, as also various other points in the Muskoka District, has recently undergone great changes for the better. To several of those comfortable hostelries additions have been made in the form of wings, until now there is nothing so soothing to the business man, who is hard at work fifty weeks every year, as a visit for ten days or two weeks at some of the points mentioned, where for a small sum of money expended he can secure most comfortable, cool, sleeping apartments, as clean as a new pin, in close proximity to the edge of the lake, with nothing to disturb his slumbers but



A QUIET NOOK 'MONG THE 30,000 ISLANDS.

the lapping of the water upon the adjacent rocks and the hum of

a very occasional mosquito.

Next season there will be completed in Lake Rosseau one of the most palatial hotels in America. The hotel property consists of about 131 acres, midway between Port Carling and Rosseau, having a shore line of nearly three and a half miles, two large sandy bathing beaches, a spacious land-locked bay, and timbered with magnificent pine, hemlock, beech, and maple trees. The attractions of fishing, yachting, boating and canoeing familiar to Muskoka will be supplemented, we understand, by excellent golf links, for which part of the property is peculiarly well adapted. The hotel will have 250 bedrooms and be four stories in height.

The ground plan of the building is in the form of a cross, permitting thus an unimpeded view of the beautiful surrounding scenery from every room. The building is to be lighted by electricity and have an extended system of bathrooms and perfect sanitation, characteristic of the highest type of modern hotels. It is also the purpose of another company to build a circuit of first-class hotels at some of the most attractive points in the Ontario Highlands, property options having been secured for charming locations at Lake Muskoka, Lake Joseph, Lake of Bays, Lake Couchiching, and Jackson's Point, Lake Simcoe.

It will thus be seen that no longer will there be the necessity for the cry for additional hotel accommodation in Muskoka and other Northern Lakes as has been the case for years past, and physicians will be able to rest assured when they send their patients up through this region that they will get the very best of care and the more rapidly recuperate from their various ail-

ments.

#### ARMY MEDICAL STAFF.

A MILITIA order published these commissions in the army medical staff on the 20th ult.:

To be lieutenant-colonels: Lieut.-Col. J. H. L. Neilson, Surgeon-Lieut.-Cols. C. C. Sewell, from the R. C. A.; A. Codd, from the R. C. D.; G. S. Ryerson, Lieut.-Col. W. Tobin, from the unattached list.

To be majors: Majors A. Worthington, A. B. Osborne, C. W. Wilson, W. Nattress, H. S. Birkett, E. E. King, C. W. Belton, J. D. Brousseau, E. Fiset, from the unattached list; Major C. C. Jones, Surgeon-Lieut. J. T. Fotheringham from the 2nd Battalion. The following on probation, not yet qualified: Major J. E. March, from the unattached list; Surgeon-Major J. H. Bell, from the retired list; Major C. E. Elliott, J. W. Bridges, E. B. Echlin, R. H. Abbott, from the unattached list.

To be captains on probation: Surgeon-Lieuts. J. A. Sponagle, from the 69th Battalion; S. D. Johnson, from the 82nd Battalion; M. McLaren, from the 62nd Battalion; H. J. Harrison, from the 59th Battalion; G. S. Rennie, from the 13th Battalion; G. H. Parke, from the 8th Battalion; A. N. Hayes, from the 27th Battalion; H. A. Archambault, from the 65th Battalion; A. Y. Scott (late 2nd Battalion).

To be lieutenants: Lieut. J. A. Devine, from the unattached list. The following on probation, not yet qualified: J. Herald, O. L. Berdan, A. A. Schaffer, H. B. Anderson, W. W. Thompson, R. F. Preston, D. A. Stewart, J. A. P. McCabe, L. R. Murray,

H. P. Fleming, from the unattached list; J. A. Ross, A.M.S.; R. Ovens, K. Cameron, J. H. Cormack, W. I. Senkler, from the unattached list; 2nd Lieut. E. D. Farrell, A.M.S.; Lieut. E. W. F. Gorrell, from the reserve of officers; J. T. Clarke, H. A. Bruce, F. Fenton, J. M. Cotton, A. T. Shillington.

To be 2nd lieutenants (supernumerary): Lieuts. A. A. Mc-Crimmon, H. H. Sinclair, from the unattached list; J. O. Orr, D. W. McPherson, H. J. Hamilton, C. A. Hodgetts, G. G. Turcott,

J. A. Roberts, L. Drum, D. E. Mundell, G. S. Cameron.

The following officers are allotted to the medical corps units: Bearer companies—No. 2 Company, officer commanding, Major E. B. Echlin; No. 3 Company, officer commanding, Major H. S. Birkett; No. 4 Company, officer commanding, Major J. T. Fotheringham; No. 5 Company, officer commanding, Capt. G. H. Parke.

Field hospitals—No. 2 Company, officer commanding, Major R. H. Abbott; No. 3 Company, officer commanding, Major C. W. Wilson; No. 4 Company, officer commanding, Capt. A. Y. Scott; No. 5 Company, officer commanding, Major C. E. Elliott.

Dr. C. R. Church died suddenly at Ottawa on the 30th ult. He was fifty-nine years of age.

The class of doctors' horses in Toronto must be improving, judging from some of the entries in the recent horse show made by our local medicos. After a while there will have to be a special class for the doctor's nobbiest turn-out.

THE Chas. S. Gray Deaconess Hospital was opened under very favorable auspices at Ironton, O., on the 5th ultimo. It was largely due to the strenuous efforts of Dr. Lester Keller that this new institution has received so enthusiastic a send-of.

Drs. W. J. Wilson, G. Carveth, and Lelia Davis announce to the profession generally that they are prepared to make examinations of tumors, sputa, urine, etc. The work is done at the Western Hospital Laboratories. For full information, physicians should apply to the nurse in charge of Laboratory.

Our readers will be pleased to peruse in this issue, amongst other papers, original articles from the pens of Judge McDougall and Dr. O. R. Avison, the former based upon a discussion which took place at Toronto Medical Society a few weeks ago. Dr. Avison, who is spending a few months in his native city, and earning a much-needed rest from his labors, expects to return to his work of self-denial and missionary effort in Corea this summer. We thank both gentlemen for their contributions.

# The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

#### 69 BLOOR STREET EAST, TORONTO.

Surgery—Dinter L. Rionban, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trink R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. X. C. STAIR, M.B., Toronto, Lecturer and Demonstrator in Amatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

and Hospital for Sick Children.

Citatical Surgery—A.E.X. PRISHOSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University. Associate Professor of Childred Surgery, Toronto University; Secretary Medical Faculty, Toronto University; Orthopedic Surgery—B. E. MCKENZIR, B. A., M.D. Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Dul-Partment, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Momber of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Orthopedic Association; and Orthopedic Association; Almobor of the American Orthopedic Association, Conference of the American Orthopedic Association, Conference of the American Orthopedic Association.

Oral Surgery-P. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology=T. H. MANLAY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—Gro. T. McKeough, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. Lowe, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—N. A. POWELL, M.D., Toronto, and W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

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145 COLLEGE STREET, TORONTO.

- Medicine—J. J. Cassidy, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W.J. Wilson, M.D., Toronto, Physician Toronto Western Hospital.
- Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Pro-lessor of Medicine and Clinical Medicine Toronto University: Physician Toronto General Rospital, St. Michael's Hospital, and Victoria Hospital for Sick Children
- Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insune.
- Public Health and Hygiene—I. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consult-ing Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.
- Pharmacology and Therapeutics-A. J. HARRINGTON, M.D., M.R.C.S.Eng., Toronto.
- Physiology —A. B. EADIE, M.D., Toronto, Profess Physiology Woman's Medical College, Toronto.
- Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.
- Pathology—W. H. PEPLER, M. D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Thinty Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Facific R.R., Toro to; and J. J. MACKENZIE, B.A., M.B., Bacteriologist to Ontario Provincian Beard of Health.
- Ophthatmology and Otology—J. M. MacCallum, M.D., Toronto, Assistant Physician Toronto General Hos-pital; Oculist and Aurist Victoria Hospital for Sick Unlidren, Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Adverts-ing, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

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.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifteenth of the pre-ceding month.

VOL. VII.

TORONTO, MAY, 1900.

NO. 5.

### Editorials.

#### EXPERIMENTAL PRODUCTION OF GOUT.

Dr. Romme abstracts in La Presse Medicale an article by H. Kionka (Berliner klinische Wochenschrift, 1900, No. 1. p. 7), in which some interesting facts are given respecting the production of experimental gout in domestic fowls. The fowls were kept in cages and fed exclusively on hashed horse-meat, which had been previously stripped of sinew and fat, as much water as they wished to drink being also allowed.

The fowls took to the new diet very rapidly, and at the start it seemed to agree with them very well. But, after some time, ordinarily in from three to five months, they began to show signs of disorders presenting all the characteristics of gout.

The disease assumed different forms. In one variety, in which the symptoms appeared at an early date and ran a rapid course, the first change observed in the fowls was that their gait became uncertain, and that they fell to the ground after hopping off the perch. The weakness in their legs went on increasing, and on certain days when probably the pains were felt with more severity, they remained lying down, with their legs drawn under them, and took no food. Their joints were manifestly swollen. These attacks lasted a few days, after which the swelling of the joints disappeared, and the fowls again began to eat and walk about.

After some time, the attacks became more and more frequent, appetite disappeared, the fowls became thin and died. In this form of the disease, slightly marked deposits of urates were found around the joints when examined post mortem. The tophi were well developed in a second variety of the disease, which was not attended with real attacks of gout, as in the first mentioned cas s, but which presented only a simple, temporary aggravation of the accidents of gout, i.e., an uncertain gait and pain in walking. In these cases, when examined post mortem, the tophi, which were well marked, were found in the joints and between the sheaths of the tendons of the legs and claws. The third variety of gout affected the viscera, with deposits of urates on the serous menibranes, and infarcts of uric acid in the kidneys. In all these varieties of gout the kidneys of the fowls, when examined post mortem, were found to be affected with gouty nephritis. There was infiltration of the small cells of the kidneys, the epithelium of the convoluted tubes had disappeared, and did not stain well, and there was also obstruction of the tubuli with urates.

The interstitial changes in the fowls fed on meat presented the following characters: With 150 grammes of meat a day, and water ad libitum, the weight of the total excrements ranged from 200 to 380 grammes, and from ten to twelve grammes of dry

matter. The quantity of nitrogen eliminated each day oscillated between grammes 3.40 and 5.40; ammonia, gramme 0.30 (average). The quantity of uric acid was very large, ranging from 7 to 11 grammes a day.

When lime, in the form of pulverized egg-shells, was given to the fowls, in quantities of 10 grammes a day, the interstitial changes were modified in the following manner: The quantity of excrements was increased, sometimes exceeding 500 grammes day, with 30 grammes of dry matter; at the same time, the reaction, which had previously been acid, became alkaline. The elimination of nitrogen was unchanged, that of ammonia was slightly increased, and the quantity of uric acid was lowered by from 40 to 50 per cent., fluctuating between grammes 3.50 and 6 per diem.

J. J. C.

#### MERCHANDISE AND BUBONIC PLAGUE.

In a letter from Dr. Montizambert, read in the Canadian Senate by the Hon. David Mills during a discussion on bubonic plague, the statement occurs that "it has not been proved that plague was carried by merchandise."

We do not know if this opinion is founded on original observation, or if it is a repetition of an opinion emitted by another writer. For instance, Dr. Walter Wyman, Surgeon-General of the Marine Hospital Service, U.S.A., in a report recently published by the Secretary of State, Treasury Department, U.S.A., holds that "it has not been distinctly proved that merchandise plays a part in the spread of plague." He observes that "the vitality of the plague bacillus outside the human body is very short, and its virulence is rapidly lost under conditions of heat, light, exposure to sun, air, etc." As the reader might conclude from such observations that merchandise forwarded from India and China, countries which are remarkable for solar heat and light, would be amply disinfected before their arrival at our docks, it is only fair to state the whole truth. Heat, light and desiccation do destroy the virulence of the plague bacillus, and dampness, darkness and a low temperature promote its survival.

Netter, in a book published this year at Paris, "La Peste et son Microbe," refers to Buchanan's report upon cases of illness,

suspected to be bubonic plague, occurring in the port of London, XXVIth Report of the Local Government Board, 1896-97. It appears that two Portuguese cooks died of plague at the London Seaman's Hospital on the 27th of September and the 3rd of October, 1896. These men belonged to the crew of a ship, which had cleared from Bombay on the 21st of August and been docked in London on the 19th of September. The other members of the crew, numbering 199 seamen, and the passengers, 119 persons, showed no signs of the disease. The cooks took no part in unloading the ship. They, however, had brought over in their luggage some articles of wearing apparel, necktics and fancy handkerchiefs, which they had purchased at Bombay, and after they arrived at London, they took them out of their trunks and used them as part of their dress.

Netter says: "I think we can agree with Buchanan's opinion, which has been accepted by the English sanitary authority. The articles of dress, purchased at Bombay, had served as a means of introducing the contagion of plague, which had preserved its virulence for a whole month. There is only an apparent contradiction between these epidemiological facts and certain laboratory experiments. On the surfaces of these goods, which had been kept in trunks in a cool, dark place, the pathogenic agents were placed in conditions dissimilar to those acting on plague bacilli, which are spread on sheets of glass or attached to silk threads, both of which are exposed to the action of light and air, and he adds in italics: "The dampness and darkness, which prevail in the hold of a vessel, are precisely the conditions which are extremely favorable to the preservation of the plague bacillus."

It would not be reasonable, therefore, to conclude that there is no risk of introducing plague into Canada from China by the means of merchandise.

If further proof were required to show that the contagion of plague adheres to goods and objects handled by persons ill with plague (particularly the minor ambulant form), it would be found in the regulations pursued at Bombay for restricting the progress of the reigning epidemic. Persons, who have come into contact with cases of plague, are removed to a "contact camp," where they receive an antiseptic bath, and their clothes or other objects belonging to them are disinfected. They are obliged to

remain in the camp for seven days. Out of 5,503 suspects, 131 cases of plague developed, or 4.44 per cent. There is nothing new in all these preventive measures applied to clothing or goods. Similar precautions had to be taken centuries ago in the different countries of Europe, when the most civilized nations of the world were struggling to put down the plague. If Europeans are now more fortunate than their ancestors in the prophylaxis of this formidable disease, part of the reason of their success may be found in the fact, that the discovery of plague can be made with dispatch, owing to the certainty and promptitude of a bacteriological diagnosis. The necessary preventive measures, isolation of cases and suspects, destruction of goods, clothing, etc., can thus be taken before the contagion has had time to spread. For these reasons, therefore, we think that goods or merchandise, particularly second-hand clothing, etc., forwarded to Canada or brought by emigrants to Canada, from ports in China infected with plague, should be disinfected under the scrutiny of a Canadian agent before they are shipped to this country. J. J. C.

#### WHAT'S IN A NAME?

"Wno steals my purse steals trash, but he who steals my good name——." Perhaps this quotation is rather a grandiloquent introduction to the few feeble remarks we have to make upon the abbreviation in names or titles indicative of the vocation followed, and as to the use of prefixes where they do not rightly belong.

Illustrative of the abbreviation of names of all sorts now in vogue, the following may prove amusing. Travelling in the United States, and even in Canada, how oddly it must sound to strangers from another country to be told blandly, "You go by the G. T. R.," or it may be the "C. P. R." No wonder the Englishman said, in reply to some such expression, "Is that a bus or a tram?" We all remember Sara Jeanette Duncan's funny allusions to this in one of her stories a few seasons ago. But a "realizing sense" of the brevity of wit was experienced by a few benighted Canadians at Old Point Comfort last year. Comfortably seated at dinner, some one remarked, "Your party go by the C. & O.; you leave in fifteen minutes." Breathless we arrived at

the depot, and were told by an affable porter, "Oh, no; you go by the Nip (N. Y. P.) and N.; it don't connect with the boat till morning."

But to return and take the short route home, how does it feel when a man has been equipped with a diploma, a good brass sign on the front of his residence, a surgery, a gig and a horse, and sundry other outward and visible signs of his calling, and that he really is a respectable and ethical physician, and like the prophet or apostle (which was it?), wanders up and down the earth on his mission of healing intent, to be stopped in his gentle career at some busy corner, and hailed thus: "Hello, Doc., how is trade!" Immediately "the seventh son of a seventh son, also a Sunday child," must experience that tired feeling which rest cannot as-Vanity, some may call it; no, indeed, self-respect is the better name, and respect for those who so hardly won the good old name of Doctor, and disgust for those who cannot revere anything under the sun. The good old name has been made public property, so to speak, since it has become the prey of all classes of persons of indefinite or unclassed schools of so-called medicine. It is also the fashion of the moment to apply it to dentists, and even vets., and, so familiar has it become, that all classes of charlatans usurp it, and consequently the great public find a third of the community calling themselves Doctor, and so the term is not properly honored, and too much familiarity has bred the contempt among the ignorant of an abbreviation, sometimes, to Doc.

"What we have we'll hold" should have been the stand taken by the ethical physicians some years ago, even in so comparatively small a matter as the holding exclusively the prefix of Doctor (when addressed). Now, some of our most highly respected practitioners in Canada have preferred to lay the term aside reverently, rather than subject it to any indignity, and ere long many more will follow their example.

A country custom, that often causes great amusement, is the breach of good form caused by the use of prefixes where they do not belong. A good story was told the other evening of a farmer's wife near Grimsby, Ont., who was recently entertaining some acquaintances from town, and wanting to impress her friends, and do fitting honor to her guests, she introduced them thus: "Let me make you acquainted with Mrs. the Reverend Sermon; this is

Mrs. Dr. Pills; and this, ladies, is Mrs. Lawyer Blackstone, of Toronto." Truly, some achieve greatness, and some have greatness thrust upon them.

Allied to this subject we notice, in an interesting "London Letter," written to the *Medical News*, the following remarks upon abbreviation in writing and conversation in use in England so much:

"There is a singular tendency in English 'medicalese' to resort to abbreviations and initials of various sorts, most of which are comparatively unknown among us, in spite of our alleged tendency to clip and shorten everything. For instance, a general practitioner is always referred to as a 'G. P.'; a house-physician or house-surgeon as an 'H. P.' or 'H. S.'; a case record of tabes dorsalis is headed with the mystic letters, 'T. D.'; one of general paralysis of the insane, with 'G. P. I.,' and the same contractions are habitually used in conversation. A unique combination of initials as a diagnosis-endorsement is reported to be in vogue at University College Hospital. Whenever a case which is clearly serious enough for admission proves too complicated or difficult to warrant a precise diagnosis upon the hurried examination of the receiving-room, it is promptly initialed 'G. O. K.' and sent up to its appropriate ward for adequate investigation at leisure. mystic characters signify simply 'God only knows.'"

W. A. Y.

#### SOME PEOPLE WANT BADLY A LITTLE HORSE SENSE.

A COUPLE of weeks ago a deputation waited upon Premier Ross to induce him to abolish compulsory vaccination. We regret to find that quite a number of the deputation were physicians, men of whom we could at least expect a larger display of ordinary every-day common sense. It is stated that, in presenting their case, wondrous and varied objections were raised as to the awful effects of vaccination, one stating that it was "the means of conveying tuberculosis, cancer, and the most loathsome skin diseases," another stating that it was "putting poison into the system to perpetuate a base superstition," and a third actually going the length of saying that vaccination was "the most colossal medical delusion in the history of the world," and similar humbug. One

deputant had brains (nit) enough to tell, in cold blood, the Hon. Mr. Ross that, because no other surgical operation had been made compulsory by law, vaccination should not, but be left to the judgment of each parent. Because there are occasional, and only occasional, cases of severe constitutional symptoms accompanying the formation of the vaccine vesicle, why should vaccination be so vigorously condemned by even two or three out of the many? There is no more question that vaccination has been the means of saving hundreds of thousands of valuable lives than there is of the advisability of the removal of a malignant growth before glandular involvement has occurred. Will our friends, the doubting Thomases, permit us to call their attention to the following editorial, which recently appeared in the British Medical Journal, entitled "The Vaccination of a Nation":

"Dr. George G. Goffe gave, not long ago, in the Medical News, an interesting account of the vaccination of the inhabitants of Porto Rico. When the Americans took over the government of the Island of Porto Rico, they found smallpox epidemic. end of January, 1829, the Governor-General ordered a general vaccination of the inhabitants. As for some reason it was not thought advisable to buy the vaccine from the United States, it became necessary to start a "vaccine farm." At first all animals were tested with tuberculin; but no reactions were obtained, so it was concluded that tuberculosis does not occur among the unconfined cattle of the island. The animals were not stabled either before or after inoculation. The lymph was collected upon points, dried, wrapped in bundles of 100 and dated, and sent by mail daily to the vaccine stations. Letters were sent to all medical practitioners and to all the alcaldes, asking their co-operation. The alcaldes at once took action, which resulted in the people appearing on the date ordered, and submitting themselves to vaccination. The instructions to public vaccinators required them (1) to wear clean white clothing, and to disinfect their hands before operation; (2) to scrub each subject's arm with soap and water and then with bichloride solution; (3) to use as scarifiers either needles kept in 1 to 40 carbolic solution (one vaccination only with each needle) or a lancet dipped in 1 to 20 carbolic solution and passed through an alcohol flame before vaccination; (4) to make two scarifications on each subject, the vaccine point to be

wet with sterile water, rubbed thoroughly over the scarifications and allowed to dry thoroughly; (5) to visit every vaccinated person a second time, and either give a certificate or revaccinate; and (6) to report daily upon the work of the day and the needs of the Every post-surgeon was made an inspector of vaccination, and required to enforce the instructions to vaccinators, and to report daily to his director. The director, in his turn reported weekly to the chief surgeon. In three working month, 800,000 people were vaccinated, at a cost of \$32,000, and Dr. Gaffe says that on October 20th not a single case of smallpox was known to either the civil or military authorities in any part of the island. The work was accomplished without a disturbance of any sort. It may strike some of our readers that our Local Government Board might do worse than import a sufficient supply of alcoldes from Porto Rico, and set them to teach local and other authornies in this country how to get vaccination enforced" (italics ours).

W. A. Y.

#### DR. McKAY'S BILL.

WE learn that Dr. McKay's bill, the salient feature of which was the abolition of the Medical Teaching Faculty of Toronto Uni-For so slim a sheet (it was versity, has been withdrawn. printed on one page), it evoked quite a literary breeze, several members of our profession having written letters in the daily rapers espousing one side or the other of the contest between Trinity Medical Faculty and Toronto University Medical Faculty. The relation of our Provincial University to the teaching of medicine should be of an elevating character, and the medical curriculum followed in the University should be of approved merit. It does not follow, however, that every physician should obtain a university degree in medicine, and in Ontario it is unnecessary that he should do so. As long as the pupils of the various medical schools receive a training, which enables them to pass the examinations of the College of Physicians and Surgeons of Ontario, they have done all that is necessary to obtain the right to practise in this province. Should they wish to get, or should they be able to assimilate a more extensive scientific training, ample opportunities are at their disposal.

After all has been said in the matter of medical teaching, the real training of a physician begins when he has to discover, by his own individual experience, the truth of what he has been taught. No teacher can make a student know a subject: at best he can but suggest thoughts. Later on, the mind of the student, in the light of facts independently observed, will evolve the kernel of truth contained in the professor's dictum. The mere reading of other men's books will not make a sound thinker, and an accurate valuation of given data is of more importance in the diagnosis and treatment of disease than a familiar acquaintance with many The bacteriologist can resolve subjects of a medical curriculum. many a doubt, but he can never supersede the clinician. A physician, well endowed mentally, after one year's practice, sees questions in a light, dissimilar to that which appeared to illuminate them when he marched off with the coveted diploma. He would do well to call a truce to his doubts and hie himself to a good medical centre, where he can scrutinize the work of other men, not necessarily adopting the professor's dictum in a slavish way, but measuring it in the light of what he knows, and prepared, when he resumes practice, to "act in the living present," so that he may learn whether the teaching be true or false. J. J. C.

#### EDITORIAL NOTES.

Prohibition of Spitting in the Streets of Paris.—The City Council of the French Capital has passed an ordinance against spitting in public, punishing infraction of the same with fine or imprisonment. Those who are obliged to spit, when out of doors in Paris, will henceforth have to do so in a public lavatory. Notices will be set up in the streets, giving the necessary information, and the ordinance is to come into effect with the least possible delay.

Open Air Treatment of Tuberculosis.—Opinions in favor of the open air treatment of tuberculosis are scattered broadcast throughout the medical press. Probably one of the best recommendations, made in favor of the treatment of tubercular patients in sanatoria, is, that the objective value of residence in such institutions is very great. The patients learn to realize that open air,

sunlight, and a carefully regulated diet are the chief curative agents, attention to hygiene being a most important adjuvant. On leaving the sanatoria, they help to spread the new faith, and thus become powerful agents in the prevention of tuberculosis.

The Ontario Medical Association.—The twentieth annual meeting of the Ontario Medical Association opens on the 6th of next month in the Normal School buildings, Toronto, and lasts for two days. The titles of all papers should be forwarded at once to the General Secretary, Dr. Harold C. Parsons, 97 Bloor Street West, Toronto. Papers, or extracts of the same, must be in the hands of the Committee on Papers by the 15th inst. Fifteen minutes are allowed for the reading of a paper. Dr. Albert A. Macdonald is Chairman of the Committee on Fapers. We hope that the twentieth annual meeting of the Ontario Medical Association will be the best on record.

Dr. Ellictt, of Gravenhurst.—The former Superintendent of the Gravenhurst Sanatorium has gone to seek new laurels in the field of malaria. We notice in the British Medical Journal that the second malarial expedition promoted by the Liverpool School of Tropical Medicine left Liverpool on March 21st, on the Steamship Olenda, for Old Calabar and South Nigeria. The expedition consists of Dr. H. E. Annett, Demonstrator in the School, Dr. Elliott, and Dr. J. E. Dutton, who have been studying in the School. It is intended that the expedition will give special attention to finding the best solid substance or powder for preventing the breeding of anopheles in surface puddles.

The Sanatoria Act.—An Act has been passed by the Ontario Legislature to provide Provincial aid for the establishment of sanatoria for consumptives. It enables the councils of counties, cities or towns separated from counties to establish sanatoria for the treatment of persons suffering from consumption; provides for the management of the sanatoria by a board of not more than five trustees; also enables municipalities to combine for the purpose of establishing sanatoria, and authorizes the Lieutenant-Governor in Council to make a grant not to exceed one-fifth of the sum expended on the site, and not more than \$4,000 altogether, for the purpose; the site and plans to be approved of by the Provincial Board of Health.

Notification of Tuberculosis.—We notice with pleasure that the editor of Le Progres Medical, of Paris, declares in favor of making tuberculosis a notifiable disease. We hope that other medical authorities who are of the same opinion will not hesitate to express it. If the spread of phthisis is to be prevented, disinfection of tubercular sputa, etc., must be practised; but the latter procedure necessarily implies knowledge of the houses where the germs of tuberculosis abound. Not only is disinfection of houses occupied by tubercular patients neglected; but in many a city on this continent, even though a health department is in operation, no disinfection of houses where deaths from consumption have taken place is either asked for or done. Disinfection in such cases should be obligatory.

The Treatment of Obesity.—The treatment of obesity by a modified form of insufficient nourishment is recommended by Dr. Debove, of Paris, particularly when the treatment is carried out in a hospital, and isolation is practised. He presented to the Paris Academy of Medicine last March a patient who, a year before, weighed 322 lbs., and had suffered from lithiasis and albuminuria, but who has been cured of these affections, while his weight has been reduced to 204 lbs., the patient thus losing more than a third of his weight. This very satisfactory result was obtained without medicines, and also without the exercise cure, which would have been impracticable, as at first the patient could scarcely move. For total nourishment he took, at first, two and a half litres of milk a day; later on but two litres, and even one litre of milk a day. During the four months prior to his appearance before the Society, the diet of this patient consisted of green vegetables, herbaceous salads, and as much raw fruit as he wished for.

The New Birth Regulation.—The new regulations regarding the registration of births in Ontario went into effect in Toronto on the 10th of last month. Cards have been sent out from the City Clerk's department to all the physicians and midwives in the city, accompanied by a circular instructing them to fill in the cards with notice of each birth they attend. These cards will be taken through the mails free and will therefore reduce the duty imposed

upon the members of the profession to a trifle. When a card, giving notice of a birth, is received at the City Clerk's department, an enquiry will be sent to the parents asking all particulars, and a printed eard will be sent which can be quickly filled in. These cards will also be carried free, so there is no possible excuse for either doctors, nurses or parents neglecting to notify the City Clerk of a birth. To enforce these regulations, a penalty of \$10 fine will be exacted for each omission to comply with the regulation on the part of either doctors or parents. Those who have failed to register births which have taken place will be given until May 1st to do so, and after that date the fine of \$10 will be imposed.

The Causes of Rheumatism.—At a meeting of the Paris Society of Biology, Dr. Charrin offered a very satisfactory explanation of the varied causes which co-operate in producing rheu-Staphylococcus albus, described by Bouchard as being met with during the course of rheumatism, is the microbe most commonly discovered. Dr. Charrin had found it twice in a patient, who had a rheumatic affection of the smaller joints, associated with a quinsy, the pus from which contained the staphy-There is, however, no microbe constantly found in rheumatism; so that, from the microbic standpoint, perhaps, there would seem to be several different kinds of rheumatism, just as there are varied forms of pleurisy, and different kinds of tonsillitis, depending on four or five different germs, viz.: Staphylococcus albus, S. aureus, bacterium coli, streptococcus. These same germs are found in rheumatic affections, and they grow rapidly as soon as an acid, particularly lactic acid, is injected into the animals on which experiments are made. This constitutional blemish, acidity, commonly affects rheumatic subjects, and rheumatism has long been classed among the acid dyscrasies. heredity exert an influence; should cold, especially damp cold, which closes the glands of the skin that excrete uric acid, act on the body, or should the trophic power of the nervous system be altered, and the alkaline condition of the body fluids be diminished, the microbes immediately begin to grow, develop, and give birth to rheumatism, the origin of which is thus explained by a chemical, a nervous, and an infectious theory.

#### PERSONALS.

Dr. A. J. Johnson has convalesced from his recent indisposition.

Dr. Chas. Sheard has been away recently in New York, but has returned.

WE are pleased that Dr. Chas. O'Reilly's son has recovered from his recent severe illness.

WE congratulate Dr. T. H. Stark upon recovery from very severe illness of his son and heir.

Dr. C. E. STACEY has purchased No. 161 College Street, next door to Dr. W. J. Wilson, and will remove there shortly.

WE tender our sympathies to Dr. H. C. Burritt, of Toronto, in the death of his son last month in Kimberley, South Africa.

Dr. W. A. Young will attend the meeting of the American Medical Association at Atlantic City, New Jersey, next month.

Dr. J. A. Creasor has removed from the corner of Spadina Avenue and Oxford Street to Brunswick Avenue, near Ulster Street:

CONGRATULATIONS, J. M.! You came out all right. The case against Dr. J. M. Cotton, of Simcoe Street, which was called in the Police Court recently, for the alleged non-report of a case of diphtheria to the Medical Health Department, was dismissed.

#### MARRIAGES.

MEYERS—BURSON.—In St. Catharines, March 24th, at the residence of the bride's mother, by the Rev. John James, D.D., assisted by the Rev. Dr. Smith, Donald Campbell Meyers, M.D., M.R.C.S. Eng., of Toronto, to Edith Alexandra, only daughter of the late Rev. George Burson.

RICHARDSON—BUTLAND.—On the 3rd of March, by the Rev. Geo. Richardson, father of the groom, at the home of Mrs. Beckett, Seaton Street, Toronto, T. B. Richardson, M.D., F.R.C.S.E., to Miss Anna C. Butland, only daughter of the late Richard B. Butland, of Toronto.

# Correspondence. A The Editor cannot hold himself responsible for any views



#### "THE WORLD'S GREAT NEED OF CHRISTIAN SCIENCE."\*

Editor Canadian Journal of Medicine and Surgery,

Dear Sir,—In order to make your readers acquainted with the profound wisdom and humanity contained in Christian Science literature, I would ask for space for consideration of the lecture, headed "The World's Great Need of Christian Science." That it fairly represents Christian Science principles and teaching is evident, for it was delivered by a Christian Science doctor, commissioned as a lecturer by the Board in Boston, and is reported in the Christian Science Journal for September, 1899.

"The world's great need" is stated as follows: "Looking out over the earth's vast scene, where the farce of human life continues to be played, and finding nothing but a farce, nothing but unredoes it not stand to reason that there is something

wanting, something that the world has need of?"

"Such a something is the science of being," i.e., Christian If these words mean anything more than a trifling with universal human misery, physical, moral and mental, they mean that human life and all connected with it is a farce, because they are unrealities. How Christian Science can benefit humanity by making them real, and can make them real by denying the existence of sin, sickness, error and death, and even of matter itself, would puzzle a Philadelphia lawyer.

That sin, sickness, death, error and evil cannot be realities, is proved by Christian Science logic: "The light of Being, of common sense, reason and revelation" declare that such things

"could never be."

The logic is exceedingly simple— "1. The unfailing and true must be.

"2. The failing and the false are their 'opposites.' Therefore

"3. The failing and the false cannot be."

Stated in other words: "Two things diametrically opposed to each other cannot both be true, and nothing that is true of one can be true of the other: hence, whatever is, its opposite is not."

How admirable! How conclusive! Because peace prevails

<sup>\*</sup>Lecture by F. J. Fluno, M.D., C.S.D.

in Europe, therefore war cannot prevail in the Transvaal. Because one man is truthful, another man cannot be a liar.

The lecturer favors us with another argument, in order to

prove that what he asserts is a "self-evident truth."

1. Such things as the mutable and false cannot be, because "there could not be the mutable and false unless there were first standard: there could not be the mutable and false unless there were first the immutable and true.

"2. Out of the true the false could never come; out of the

unfailing the failing could never proceed. Therefore

"3. There cannot be the mutable and false."

What wonderful logic! What does the word "standard" mean? Is it not something by which we judge whether actions or motives are good or bad, right or wrong, true or untrue? Is not that which does not come up to the "standard" of truth, falsehood? to the "standard" of right, wrong? As to the contention that "out of the true the false could never come,"etc., I am not aware that any sane man ever thought it could. Nor am I aware that any man ever denied that vice existed, and could not exist because there was a "standard" of morality, until these "thinkers," the Christian Scientists, found out that vice could not exist because it was the "opposite" of morality.

Having proved to a demonstration that, "in the great scientific fact of the being and existence of his hearers there is not, nor could be, a mistake, that there could not be and there is not an error, a flaw, an incorrectness, a something wrong," on the next page he deplores "the large degree of inharmony, unhappiness and dearth of brotherly love, and a great want of peace on earth," among "the throngs that people the earth," but attributes this to what he terms "mortal sense." "Mortal sense, it is true, has its degrees of evil, and its degrees of wrong, and what it calls right: but even its highest degrees of good are still not good, because it has evil in the premise, and its very highest degrees of right are still wrong, because mortality is wrong to begin with."

To remedy this deplorable condition of man Christian Science has come, "admitting of no evil, no wrong, admitting only a perfect God, and a perfect creation, perfect God and perfect man." Let us now inquire how Christian Science meets the "farce of

human life."

1. The farce of famine and destitution. "Looking out over the world's vast extent," we see millions perishing for lack of food. Christian Science comes to their relief by assuring them that "food does not affect the real existence of man" ("Science and Health," 387). What is needed is more goodness, then you will not require food (S. and H. 387).

They are perishing with cold. "Heat and cold are the pro-

ducts of mortal mind; mortal mind products therefore all they need is more "mortal mind."

Thindness and deafness. "No organic construction can give hearing and sight, or make it the medium of mind" (485). "Sensible objects are to be apprehended mentally, not physically" (262).

"The testimony of the senses is false" (14). If so, the blind

or dumb are better without sight or hearing.

3. The farce of filth and dirt. "Ignorance of hygiene is a blessing" (381). "Hygiene is not conducive to health" (58).

4. The farce of ignorance. "We welcome the increase of knowledge, even if it lead us into error, because sinful human invention must have its day, and we want that day to be over " (26). "Education is a cause of disease" (69).

5. The farce of war. Christian Science teaches that wars are "They stir up evil" (which he says does not and cannot exist) "to its utmost, and bring it to the surface, and re-

duce it to its proper state of nothingness" (532).

6. The farce of leprcsy. "All diseases are illusions." Get "your corporeal senses" (which he says are liars) "to respond to the truth, to realize the presence of health," and behold leprosy disappears.

7. The farce of sin. "Sin is an illusion" (528).

unreal" (444).

8. The farce of drunkenness. The lecturer's utterances on the subject of intemperance are characteristic of Christian Science mental obliquity. He first tells us that "the whole world is in the seething maelstrom of intemperance," and immediately afterwards declares that "there is only one mind, that is, God, and that mind admits no evil doer, and no evil; no inebriety and no inebriate; no intoxication, and nothing that can intoxicate."

According to Christian Science teaching there is nothing harmful, or poisonous, or intoxicating. Everything derives its supposed baneful power from the belief of mortal mind. All efforts to rescue mortals from the "maelstrom of intemperance" must fail unless they learn this. "Who more than the temperance advocate himself needs to be healed of intemperance? For who more than

ne is believing that matter can intoxicate?"

The teaching of Christian Science on this subject may be sum-

marized as follows:

The whole world is in a seething maelstrom of intemperance. There is not and cannot be intoxicants nor intoxicated. The terrible results which we daily see are due to the universal belief of "mortal mind" that whiskey, etc., will intoxicate. Lastly, to cap the climax, "Mortal mind itself is not real." "The phrase, mortal mind, implies something untrue, and therefore unreal"(8).

9. The lecturer next proceeds to settle the "financial question." "The world needs Christian Science to settle it. It can never be solved so long as gold or any other commodity is made the basis Where shall value be found but in the 'Pearl of great price'? When men learn Christian Science, 'In God we trust,' then the financial question will be solved."

This is simply pious twaddle. If the learned lecturer should offer to pay for a suit of clothes with the "Pearl of great price," he would be informed that business was not carried on with that

. commodity.

Mrs. Eddy's mansion and eighty acres at Concord, valued at \$800,000, was not purchased with such heavenly currency, nor was it the "basis of value" in payment for her "little book," which she declares is the "little book brought down from heaven by the Angel of the Apocalypse," and which she impiously de-

clares "is the Holy Ghost" (579).

Mrs. Eddy's "financial transactions" with reference to this little book have little to do with "the Pearl of Great Price." She professes to have written the book "as a scribe under orders, transcribing what God indited," and forthwith copyrighted it, and proclaimed herself to be the author. This "little book," "the Holy Ghost," she sells with a profit of \$2.50—good American money—and if the statement made by her chief lecturer, Mr. Carl Norton, is correct, she has realized in hard cash, during twentyfour years, \$500,000, or an income of over \$20,000 a year.

The copyright of this "little book" is so carefully guarded that when an apparently impecunious "reader" ventured to copy the lesson for the day to read to the church, she blasphemously declared that to do so was "seeking again to cast lots for His vesture" ("Miscellaneous Writings," p. 302).

So far from "trusting in God," Mrs. Eddy withheld the revelation she received from God for six years, until she satisfied herself that it could be "profitably published" (Preface S. and H.).

Influenced by the teaching of the Holy Scriptures, thousands of devoted men and women are enduring privation, sacrificing ease, health and comforts, surrounded by ignorance, squalor and brutality, in order to supply some of the world's great need.

Princely hospitals, tens of thousands of dispensaries and infirmaries, supplied with lavish endowments, ministered to gratuitously by tens of thousands of attendants, orphan asylums, sailors' homes, homes for the aged and infirm, refuges for the fallen, etc., stud the earth for the relief of sinful, suffering humanity.

What has Mrs. Eddy done to relieve sin and suffering but publish a book which denies the existence of sin and suffering, which is practically beyond the reach of the suffering multitudes, which is copyrighted so as to prevent others from issuing cheaper

editions and so diminish her enormous profits? She ushers in her book with the triumphant declaration: "To-day is big with blessings. . . . Now, across a night of error (i.e., the 1,850 years since the "pale star appeared to the prophet shepherds"), "shines the guiding orb of truth. The wise men are led to behold and follow the day-star of Christian Science, as it opens the way to eternal harmony!"

Our Saviour said, "I am the light of the world." Mrs. Eddy says the world was enveloped in utter darkness for eighteen and a half centuries, when the "guiding orb of truth" was disclosed to her, and it might have forever remained unseen by the world if she had not satisfied herself that its disclosure could be made a

source of profit to her.

Mrs. Eddy, as I have already pointed out, declares that her "little book" is "the Holy Ghost." If Simon, who "offered money" for the power to confer the Holy Ghost, was rebuked by Peter in the words: "Thy money perish with thee, because thou hast thought that the gift of God may be purchased with money," what must be the condemnation of one who, as she says, having received this gift of God, makes it an article of merchandise, and rolls in wealth with the proceeds!

The lecturer institutes a comparison between civilization and barbarism, much to the disadvantage of the former, and tells us that "Christian Science comes to-day to help the world out of the tangle of so-called civilization, moral culture and refinement."

This needs no comment, it speaks for itself.

He also makes the audacious statement that, "under a regime of four thousand years, sickness and mortality have increased." Besides the refutation this statement receives from the statistics of actuaries, I would merely adduce the indisputable fact that, whereas the number of deaths in Europe during the last half of the last century, from smallpox alone, amounted to six hundred thousand annually, now the dire disease is almost stamped out, thanks to the medical profession, which Mrs. Eddy traduces in almost every page of her "little book," for having, by means of vaccination, isolation, sanitation, etc., shorn smallpox, cholera, plague and other diseases of the greater part of their terror.

The lecturer summarises his argument as follows:

1. The world is hopelessly and helplessly sick.

2. This universal sickness is, however, a mere belief in sick-

3. Christian Science teaches the unreality of sickness.

4. Nothing but Christian Science can teach conclusively what

does, and what does not belong to being.

5. "Therefore, what Christian Science teaches is conclusive; hence, whoever contradicts or presumes to dispute Christian Science will find that he is fighting against Eternal Truth, the Almighty God."

This stage thunder does not terrify me. I not only "venture to dispute" every one of his propositions, except the first, but I unhesitatingly pronounce them to be utter absurdities.

The lecturer further claims that he is only "voicing what

science reveals to him."

There have been other women besides Mrs. Eddy who have professed that they have had revelations from God, with as much authority, and have succeeded in deluding multitudes.

Let us compare Johanna Southcott's career with that of Mrs.

Eddy:

About the latter part of the eighteenth century Johanna Southcott announced that she had received a revelation from God.

J. S. said she was the woman mentioned in the twelfth chapter of Rovelation (q.v.).

- J. S. proclaimed that she was about to give birth to "Shiloh," and her followers subscribed \$1,000 for a cradle, for the reception of the heavenly Babe.
- J. S. sold seals which were to ensure eternal salvation to the purchasers, and thereby realized considerable money.
- J. S. had followers, computed to reach the number of 100,000, who for years after her death, from dropsy, confidently expected to witness her resurrection.
- J. S. published a lot of uninteiligible nonsense.

In the latter part of the nineteenth century Mrs. Eddy pronounced that she had received a revelation from God.

Mrs. E. said she was the woman mentioned in the twelfth chapter of Revelation, and, moreover, that her "little book" was the little book brought down from heaven by the angel mentioned in the tenth chapter of Revelation (q.v.).

Mrs. E. produced her book, which she declares (p. 3) is prophetically referred to in the words: "Unto us a child is born," etc.

Mrs. E. sells a book which she declares "blots out all our iniquities, and heals all our diseases," thereby realizing a fortune.

Mrs. E.'s followers are computed to number hundreds of thousands, many of whom confidently believe she will never die.

Mrs. E. has published a lot of unmitigated nonsense.

In corroboration of the last statement concerning Mrs. Eddy's

publications, let me give a few extracts:

On page 81 we read: "If you take away this erring (i.e, this mortal) mind, the mortal body loses all appearance of life or action, and the human mind calls it dead; but this hilman mind still has a body, through which it acts, and which appears to itself to live—a body like the one it had before death, and which we still see."

The absurdity of this will appear from Mrs. Eddy's statements concerning mortal or erring mind in her book:

1. "Mortal mind and its body are one" (70).

2. "Mortal mind" implies something untrue and unreal (8).

3. This "mortal mind" persists after death—and makes an-

other body, for "mortal mind makes its own body" (118).

4. If after death mortal mind makes another mortal "body like the one it had before death, and which we still see," why do we not see it also?

5. How long will this process of separation from the old dead body, and the formation of another precisely like it, be repeated?

Take another example, p. 256: "In dreams we fly" (we means "mortal mind," for p. 145, "The mortal mind is the dreamer") "to Europe, and meet" (by appointment, I suppose) "a far-off friend. The looker-on sees" (but "the evidence of the senses is false," 14) "the body in bed, but the supposed inhabitant of that body carries it through the air and over the ocean. This shows the possibilities of thought." She goes on to say that when opium- and hashish-eaters dream, "their bodies stay in one place."

Considering that time, in Europe, is five or more hours in advance of time in Concord, one would imagine that if Mrs. Eddy so dreamt, the "meeting" with the far-off friend would be rather embarrassing and indelicate, for if the dream occurred soon after she went to bed, her far-off friend would, in all probability, be also peacefully slumbering in his bed; and if she dreamt towards morning, the friend might be in some public place, and the apparition of a body clad in a nightgown would be rather startling, to say the least.

That anyone should accept as "absolute truth" these specimens of Mrs. Eddy's Science, can only be explained by Mrs. Eddy

herself. She tells us on page 484:

"The less mind there is manifested in matter the better. When the unthinking lobster loses his claw, it grows again. If the science of life were understood . . . then the human limb would be replaced as readily as the lobster's claw—not with an artificial limb, but with the genuine one."

That is to say, when the Christian Scientist thoroughly understands the "science of life" he will be as unthinking as a lobster, and will grow a new limb; or, if he becomes as unthinking as a polyp, you might cut him into little bits, and every bit would grow into a perfect Christian Scientist.

Christian Scientists seem to be fast arriving at this highly desirable condition.

James H. Richardson.

Dr. C. F. Moore, of Toronto, will be married on the 3rd instant Chicago. Fred! congratulations.

### The Physiciar's Library.

#### BOOK REVIEWS.

Hemmeler: Diseases of the Stomach, their Special Pathology, Diagnosis and Treatment, with Sections on Anatomy, Physiology, Chemical and Microscopical Examination of Stomach Contents, Dietetres, Surgery of the Stomach, etc. By John C. Hemmeter, M.E., Professor in the Medical Department of the University of Maryland, Baltimore. With many original illustrations, a number of which are in colors. Second edition, enlarged and revised. Octavo, 898 pages. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Price, \$6.00 net. Cloth.

It must be a matter for congratulation that a little over two years after the issue of the first edition of any book, the author should be called upon to rewrite his work and give his confreres in the profession an opportunity of still further learning from his store of knowledge. We took the opportunity of complimenting Dr. Hemmeter on the first edition of his work on Diseases of the Stomach, and, after looking through his rewritten and revised edition so soon after, we can only add to the paeans of praise already meted out to him but two years ago. We find that the author has rewritten almost the entire work, and has added chapters on electro-diaphany, obstruction of the orifices, hypertrophic stenosis of the pylorus, and on the use and abuse of rest and exercise in the treatment of digestive diseases. The sections on Motor Insufficiency, Enteroptosis and Gastroptosis have been considerably changed. We find also the addition of a number of very fine plates, the majority of which are executed in a most masterly manner. One of the most instructive chapters in the entire book is that dealing with drinks and liquid foods, a subject about which general practitioners are, as a rule, too ignorant. The author gives here the method of preparing all the varied delicacies used in and around the sickroom, such as the different broths, jellies, puddings, gruels, bouillons, soups, It will more than repay practitioners to carefully study this section, as it is full of valuable information, enabling the attendant physician to be in a position frequently to give hints to the nurse, often when she most requires them. Under the heading of Digestive Ferments, the author states that the diet should not be levelled down to the digestive capabilities of the stomach, but that digestion should be levelled up until it can deal efficiently with the amount of food required for the nitrogen equilibrium. The author is of the opinion that the indiscriminate dosing with digestive ferments does more harm than good, the stomach being an organ which very rapidly adapts itself to cease performing the work that is done for it artificially. We read with great attention the chapter on Gastroscopy. Apart from complications that are due to tumors, exudations, enlargement of the liver, etc., apart also from congenital anomalies, two facts are to be considered in the light of an impediment to a successful probing by means of introducing a rigid tube into the stomach-in the first place the bend to the left, or spiral twist, which the esophagus shows so frequently in its subphrenic part; and secondly, the occurrence of spasm at the lower physiological contraction of the organ. With continued practice it becomes apparent that the anatomical obstruction, caused by the change in the direction of the esophagus, may usually be overcome if the instrument is introduced from the right angle of the mouth, preferably while the head is turned slightly to the right, laterally.

A Manual of Pathology. By Joseph Coats, M.D., late Professor of Pathology in the University of Glasgow. Fourth edition. Revised throughout by Lewis R. Sutherland, M.B., Professor of Pathology in the University of St. Andrew's. With 490 illustrations. Longmans, Green & Co., 39 Paternoster Row, London; New York and Bombay. 1900.

Since the first edition of this practical work appeared in 1883, there has been a constant demand for it by students and practitioners; and this posthumous edition which has had the direct counsel and support of the late author up to the very close of his life, and so thoroughly and carefully revised by Lewis R. Sutherland, M.B., Professor of Pathology in the University of St. Andrew's, has added to the excellence already attained in the former editions.

What strikes us at once on looking over the different chapters is the clearness and readableness of the work, which is so essential to the subject, and at the same time preserving its thorough and scientific principles. The late author appears to have limited his doctrines and statements to solid personal and other original research, and to have steered away from mere speculative considerations which we find so often filling up the pages of like manuals. Then, also, the late author was associated as teacher with large practical and systematic classes of undergraduates and post-graduates, which would have the tendency to keep him alive to all the details of modern pathology. The late author has adopted the usual arrangement of diseases, viz., general and special. In Part I we find a section on Teratology, which will be found interesting and very useful to those who have not a special work on this subject. It is a noticeable fact that although teratology should come under the head of pathology, yet in most works on pathology the subject of malformations and monstrosities is conspicuous by its absence.

- Under the heading, Intoxications, we very rightly find such diseases as uremia, gout, diabetes, lipemia, melanemia, myxedema, cretinism, acromegaly, Addison's, disease, which diseases were formerly regarded as widely separate but are now known to be intimately related under one common cause, viz., certain changes in secretion and excretion, and all characterized by changes in the blood and other fluids of the body, either by the presence of toxic substances or by alterations in the chemical constitution of the plasma.

There is a chapter on pyrexia with its accompanying phenomena, as cloudy swelling, influences on pulse, blood pressure, nervous disturbances and post-morten appearances, all of which will prove most useful to students of pathology. All the 490 illustrations are founded largely on personal and other original research, thus adding much to their value.

We can heartily endorse the statement made by W. T. Gairdner, of Glasgow University, in his beautiful tribute to the late author, that this volume is destined to fulfil its mission, viz., to become at once a manual of instruction for the student of medicine, and a work of reference for the practitioner who may be desirous of keeping his pathological knowledge up to date, and will be a worthy memorial of one who was respected and beloved alike by teachers and students.

W. H. P.

The International Text-Book of Surgery. By American and British authors. Edited by J. Collins Warren, M.D., LL.D., Professor of Surgery in Harvard Medical School; Surgeon to the Massachusetts General Hospital; and A. Pearce Gould, M.S., F.R.C.S., Surgeon to Middlesox Hospital: Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Hospital Medical School; Member of the Court of Examiners of the Royal College of Surgeons, England. Volume II., Regional Surgery, with 471 illustrations in the text, and 8 full-page plates in colors. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900. Two volumes. Price, \$5.00 per volume in cloth, \$6.00 in sheep and half morocco. Canadian Agents: J. A. Carveth & Co., Toronto.

Among the contributors to Volume II. of this very fine work appear the names of John B. Deaver, Wm. B. Coley, Christian Fenger, E. T. Collins,

Jas. Cartlie, H. H. Curtis, F. Henrotin, Chas. McBurney, J. Collins Warren, R. W. Parker, W. L. Roaman, and last, but certainly not least, Geo. A. Peters, of Toronto. The chapter we naturally turn to first is that by our own fellow townsman and confrere, Dr. Peters, Chapter XVI. on Diseases of the Rectum This section consists of about twenty-five pages, and includes a number of half-tone plates and drawings which materially elucidate the text. The author, after shortly referring to the anatomy of the rectum, discusses the congenital malformations most commonly found, injuries of the rectum and anus, acute and chronic ischiorectal abscess, fistula in ano with its treatment, irritable ulcer and fissure of the anus with the treatment, hemorrhoids external and internal, prolapsus ani, procidentia recti, polypus, simple syphilitic and tuberculous ulceration, stricture of the rectum, carcinoma of the anus and rectum, and lastly, excision of the rectum. The chapter by Dr. Geo. A. Peters, whom we may say is eminently fit to be a contributor to Volume II. of the "International Text-Book of Surgery." is most readable, our only regret being that the doctor was confined to so limited an amount of space. Apart from diseases of the rectum, the various authors in this volume contribute articles dealing with the surgery of the various organs and cavities of the human frame. with the surgery of the various organs and cavities of the human frame. The Surgery of the Thorax is contributed by Dr. John Murray, of Middlesex Hospital, London; the Surgery of the Esophagus, by Dr. J. B. Deaver, of Philadelphia; the Surgery of the Neck, by Mr. Pearce Gould, of London; the Surgery of the Breast and the Technic of Abdomina; Surgery, by Dr. J. Collins Warren, of Boston; Hernia, by Drs. W. T. Bull and W. B. Coley, of New York; two chapters on Gynecology, by Dr. F. Henrotin, of Chicago; Military Surgery, by Dr. W. H. Forwood; Naval Surgery, Dr. C. A. Siegfried, of the U.S. Navy, and Tropical Surgery from the pen of Dr. Jas. Cantlie, of London. Volume II. of the "International Text-Book of Surgery" is of greater interest to the surgeon even than Volume I. on account of its dealing with Regional Surgery. Typographically it is a model. well illustrated, a credit to Mr. Saunders and replete graphically it is a model, well illustrated, a credit to Mr. Saunders and replete with interest.

The Irrigation Treatment of Gonorrhea, Its Social Complications and Sequela.

By Ferd. C. Valentine, M.D., Professor of Genito-Urinary Diseases, New
York School of Clinical Medicine; Genito-Urinary Surgeon, West Side German Dispensary; Genito-Urinary Consultant to the United Hebrew Charities, and to the Metropolitan Hospital and Dispensary. Illustrated by fifty-seven engravings. New York: William Wood & Company.

Dr. Valentine's book gives a short, concise description of the methods employed in treating gonorrhea by irrigation. The author states that Goldberg's researches show that by this plan 90 per cent. of cases are cured within fourteen days. The average general practitioner, and his patient too,

would certainly consider such results satisfactory.

Dr. Valentine describes his irrigator minutely, and gives full and complete directions regarding its use in acute anterior gonorrhea and in acute p scerior gonorrhea and for washing out the bladder. The author states that "a" the steps of intravesical irrigation, like those of anterior irrigation can be effectively, thoroughly and painlessly performed without soiling any part of the patient's person or body, or of the office." The complications and sequelee of genorrhea are considered in detail and appropriate treatment is suggested. An important chapter is devoted to chronic gonorrhea, its causes, diagnosis and treatment.

In another chapter the author gives valuable instructions in regard to

digital palpation of the urethral adnexa. Uncured, latent, or "residual gonorrhea in women" is certainly responsible for many cases in which the exact source of the infection is in doubt. The diagnosis of this condition is given

in a short, interesting and satisfactory chapter.

It is Dr. Valentine's opinion that the diagnosis in cases of chronic gonorrhea is practically impossible without the aid of the urethroscope. He states that the technique of this instrument is learned with difficulty from written descriptions, but that it can be readily acquired by a few lessons from a colleague who has been properly instructed. For the benefit of "those who are prevented from obtaining personal instruction in the urethroscopic appearances," the author describes the normal and the pathological conditions that may be observed with this instrument.

Every general practitioner who treats cases of gonorrhea should read Dr. Valentine's book.

Imperative Surgery for the General Practitioner, the Specialist and the Recent Graduate. By Howard Lilienthal, M.D., Attending Surgeon to Mount Sinai Hospital, New York City. With numerous original illustrations from photographs and drawings. New York: The Macmillan Co.; London: Macmillan & Co., Limited. 1900. Toronto: Carveth & Co. Price, seventeen shillings net.

It takes but a moment for anyone taking up Lilienthal's "Imperative Surgery" to judge well of the book. Why? Because in the first place it is printed on magnificent paper, giving a typographical richness which is too often absent in works which have, owing to their nature, to be freely illustrated. Good, clear illustrations, and especially those from photographs or drawings made during the progress of the actual work, add greatly to the value of any book, and we don't hesitate to state that those in Dr. Lilienthal's work are amongst the finest we have ever seen. We are delighted with the type used throughout the book, as it is considerably larger than that ordinarily found in medical That feature also adds to the value of any volume, and we wish publishers would take the hint, even though the price of the work has to be increased somewhat. What the author has accomplished here is to take up the diagnosis and treatment of conditions demanding immediate operative measures. He has taken it for granted that there is no expert assistance within call, and that the attendant is left largely to his own resources to carry through the case. One point we are pleased to notice is that Dr. Lilienthal does not leave his reader, placed in the throes of an emergency, to have to pick and choose one out of several methods of procedure, but pins him down to one and one only, and that one the best. We cannot refrain from referring specially to the illustrations given in the article on appendectomy. They are simply grand, and so clear that one would almost imagine that he was standing immediately behind the operator. We heartily recommend to all the purchase of Lilienthal's "Imperative Surgery."

The Medical Annual and Practitioners' Index. A work of reference for Medical Practitioners. Contributors: Jas. Cantlie, M.A., M.B., Prof. A. H. Carter, Prof. Hy. D. Chapin, J. E. Cooney, L.R.C.P., R. J. Coulter, M.B., F. Richardson Cross, M.B., R. M. Fenn, M.B., T. Colcott Fox, B.A., S. G. Gant, M.D., H. Bellamy Gardner, M.R.C.S., A. E. Giles, M.D., E. W. Goodall, M.D., J. D. Grant, M.D., G. M. Hammond, M.D., Lieut.-Col. W. Keith Hatch, F.R.C.S., G. A. Hawkins-Ambler, F.R.C.S., Robert Jones, F.R.C.S., Priestley Leech, M.D., and twenty-one others. 1900. Eighteenth year. Bristol: John Wright & Co., Stone Bridge; London: Simpkin, Marshall, Hamilton, Kent & Co., Limited; New York: E. B. Treat & Co.; Toronto: J. A. Carveth & Co.

There are some books the annual appearance of which is always looked forward to. Of that number the "Medical Annual" is certainly among the foremost, and there are very few indeed of those, who for many years past have been regular subscribers, who do not take pleasure in paying out the small amount necessary for its purchase. The "Medical Annual" is becoming larger and larger as each issue comes to hand, till now with the eighteenth year of its existence just opening, the book will in size compare well with many of the more pretentious ones on the shelves of the practitioner's library. The 1900 Annual is a success. It is full from cover to cover of the most recent information on a vast number of subjects, and the information given is epitomized to such an extent as to be perused in a short time and therefore most acceptable to the busy doctor. The 1900 Annual, we predict, will have the largest sale in its listory.

Surgical Pathology and Therapeutics. By John Collins Warren, M.D., LL.D., Professor of Surgery in Harvard University; Surgeon to the Massachusetts General Hospital. Illustrated. Second edition, with appendix containing an enumeration of the scientific aids to surgical diagnosis, together with a series of sections on Regional Bacteriology. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900: Canadian Agents: J. A. Carveth & Co., Toronto. Price, §5.00 in cloth, §6.00 in half morocco.

A reliable work on surgical pathology is of absolute necessity to the practising surgeon, as no man can expect to do successful work in surgery without a keen knowlege of pathology and bacteriology. To one with such knowledge at his finger tips, the most complicated problems become comparative simplicaties, and the ability to correctly diagnose, a matter of far greater ease. Dr. Warren has in this work so associated pathological conditions with surgical diseases, their symptoms and treatment, as to make the two subjects of surgical pathology and surgery seem as one, and a most interesting and readable one at that. The author has done so in such a manner as to impress the student with the value of these lines of study as the only correct foundation for successful clinical research. The second edition of this book is considerably larger than the first and is in every respect fully up to date. This edition shows a great deal of additional work on the part of the author since the first came from the press, especially in the new appendix and the chapter on Antiseptic Surgery. The latter is one of the most interesting chapters we have ever read on the subject, and is alone worth the price of the book. W. A. Y.

A System of Gynecology by many Writers. Edited by Thomas Clifford Albutt, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge, Fellow of Gonville and Caius College; and W. S. Playfair, M.D., IJl.D., F.R.C.P., Professor of Obstetric Medicine in King's College and Obstetric Physician to King's College Hospital. New York: The Macmillan Company; London: Macmillan & Co., Limited; Toronto: J. A. Carveth & Co.

We think it was a very wise idea of Dr. Allbutt in publishing his magnificent "System of Medicine," to issue a separate volume on Gynecology, this department of medicine having of late years grown to such an extent as to require more than a mere section or series of chapters forming but part of another volume. There is no doubt that the advances in gynecology have been no less than remarkable, and it is well that the practitioner of to-day has at his elbow a book such as that of Allbutt and Playfair, giving in condensed form this subject, splendidly arranged and presented most palatably. Though this book has been on the market a year or two now, we find comparatively little which can be improved upon to any extent, excepting here and there throughout the work, where the views taken are not of course as modern as those now entertained. Among the contributors are Berry Hart, A. H. F. Barbour, John Halliday Croom, A. R. Simpson, J. Bland Sutton, J. K. Thornton, R. Milne Murray, Henry Morris and J. Greig Smith.

Saunders' Question-Compends, No. 2. Essentials of Surgery, together with a full description of the handkerchief and roller bandage. Arranged in the form of questions and answers. Prepared especially for students of medicine by Edward Martin, A.M., M.D., Clinical Professor of Genito-Urinary Diseases in the University of Pennsylvania. Illustrated. Seventh edition. Revised and enlarged, with an appendix containing full directions and prescriptions for the preparation of the various materials used in antiseptic surgery; also several hundred receipts covering the medical treatment of surgical affections. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900. Toronto: Carveth & Co. Price, \$1.00.

The seventh edition of Dr. Martin's Question-Compend on the Essentials of Surgery is certainly larger and more complete than any of its predecessors. There is no doubt that such a work can prove of wonderful value in assisting

the student to form a good groundwork for his more complete study of the subject later on, and many a graduate of the present day can look back and thank just such a book as this for putting him through a stiff oral examination in surgery, by having impressed upon his memory facts which might otherwise have slipped away.

Injuries to the Eye in Their Medico-Legal Aspect. By S. Baudry, M.D., Professor in the Faculty of Medicine, University of Lille, France, etc. Translated from the original by Alfred James Ostheimer, jun., M.D., of Philadelphia, Pa. Revised and edited by Charles A. Oliver, A.M., M.D., Attending Surgeon to the Wills Eye Hospital; Ophthalmic Surgeon to the Philadelphia Hospital; Member of the American and French Ophthalmological Societies, etc. With an adaptation of the Medico-Legal Chapter to the Courts of the United States of America, by Charles Sinkler, Esq., Member of the Philadelphia Bar. Extra cloth, \$1.00 net. Philadelphia: The F. A. Davis Co.

This small book will prove of the greatest value to those practitioners who act as attendant surgeons to large factories and institutions where possibly hundreds of hands are daily employed and where injuries are being constantly sustained by one or more of the employees. Lesions of the eye are becoming more and more frequent ever day with damage suits as the natural sequence, and the practitioner is often called upon to give evidence bearing upon such cases. A book such as this of Dr. Charles A. Oliver's will throw light upon this subject, and will, we feel sure, in many instances prove of the greatest value to medical jurists.

The Refraction of the Eye, including a complete treatise on Ophthalmometry. By A. E. Davis, A.M., M.D. adjunct Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital. The Macmillan Company, London and New York. 1900. Price, \$3.00.

This is the only work in English devoted to the ophthalmometer. On refraction, retinoscopy, and ophthalmoscopy we have works galore, but the ophthalmometer has heretofore, by English authors at least, not been thought worthy of a monograph however brief. They do not agree with the author who prefers the easy but inexact estimation of refraction by the ophthalmometer and trial lenses to the more difficult and more exact method by retinoscopy and ophthalmoscopy. While we cannot agree with the estimate of the author as to the clinical value of the ophthalmometer we can say that he has produced a most useful guide to the use of that instrument, and that his book gives evidence of abundant and careful work. The ophthalmometer is no royal road to refraction, as the victims of the "oculist opticians" daily bear witness.

J. M. M.

#### (LUBLISHER'S DEPARTMENT.)

Cystogen.—Hexamethylen-tretamin, the ammonia salt of formic aldehyde, was introduced into therapeutics by Nicolaier, of Berlin, ince which time articles have appeared in European and America journals commending its use. Cystogen is an American output of this same salt, is a weak base, occurs as white crystals, and is freely soluble in water. It is best administered in a glass of water, the average does being five grains three or four times daily. It may be administered in this quantity for months without ill effects. Ten or fifteen minutes after administration, cystogen and also formaldehyde can be detected in the urine, showing conclusively that this salt liberates formaldehyde in the genito-urinary tract, and in all probability in the blood itself. For days

after its administration has been discontinued it has been detected in the urine. The influence of cystogen, therefore, as a germicide or hindrance to the development of micro-organisms and as a solvent of uric acid may be expected to be continuous. This salt offers the opportunity of employing the well-known germicidal properties of formic aldehyde without experiencing any of the irritating properties which forbid the use of the latter. In the treatment of the uric acid and rheumatic diathesis it has proven a valuable agent. It is indicated in the treatment of tonsillitis, hay-fever, non-suppurative otitis media involving diathesis.

Magee's Emulsion.—Dr. Willis A. Hammond, of Madison, N.Y., one of the most prominent physicians and surgeons in his part of the State, in answer to our recent inquiry, writes as follows: "Yes, sir, I know all about your Emulsion. I think I have used your preparation of cod liver oil ever since it has been on the market. I use no other; and it is just what I use to restore the strength after la grippe. It is an elegant preparation, suitable to all stomachs, and 'children cry for it.' I cannot say too much in its praise." What more can we add?

Boston, Mass., December 1st, 1899.

Magee Emulsion Co., Troy, N.Y.

Gentlemen,—We want in a word to convey to you our satisfaction in the use of your valuable product. We have found the results to be not only quick but, in the great majority of cases, permanent. The class of people who come to our doors are the working people, who, from the nature of their calling, are sadly in need of what will at once show result, and we can say that we find in all cases that it has done more than we anticipated.

Very truly yours,
The Suffolk Hospital,
By Albert C. Smith, President.

ALBERTON, MD., October 13th, 1899.

Magee Emulsion Co., Troy, N.Y.

Gentlemen,—I intended writing you some time ago, but coming across your letter of March 27th, I am reminded that I have not done so. The bottle of Magee's Emulsion so kindly sent was given to the four-year-old child, spoken of in my letter of March 24th. This little fellow brushed very close to the dark valley, with as bad a case of broncho-pneumonia as I have ever seen; he was so weak that he actually fainted lying on his pillow. The Emulsion was all that one could wish for in the rapidity and permanency of its effects, as his recovery was quick and perfect.

Very truly yours,
WM. B. GAMBRILL.