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U. OGDEN, M.D.,
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R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

ON THE TREATMENT OF PLEURITIC EFFUSION.*

BY T. CLIFFORD ALLBUTT, M.A., M.D.,

Physician to the General Infirmary, Leeds.

In the paper I am to read before this Section, I can scarcely hope to say much that is new, but I may hope to put the old before you strengthened by the results of a maturer experience. My own views of the treatment of pleuritic effusion have been laid repeatedly before the profession, and have contributed to the formation of a bolder habit of procedure in the matter. It is, therefore, neither needful nor possible in the time before me to enter into any full or minute discussion of the whole of our subject, but rather to set forth as pointedly as possible my views on the more difficult or disputed points. Under such circumstances, I must ask your forgiveness for any apparent abruptness or dogmatism.

It appears to me that our first duty is so to divide pleurisies into classes as to enable us to know more clearly what we have to deal with, and thus to avoid much of that controversy which gathers about ill-defined propositions as parasites gather about ill-nourished tissues. Although no hard lines can be drawn around them, yet the following divisions are fairly recognisable if we disregard transitional cases.

1. Dry pleurisies, in which the tubercular may be included.

2. Acute effusive pleurisies, in which the rheumatic are included.

3. Quiet effusive pleurisies in the serous stage.

4. Empyemata.

5. Pleuritic dropsy.

Of Class I, I have now nothing to say. The tubercular pleurisies are at times effusive, but the exigencies of individual cases are too various to be here considered.

Class II. Acute effusive pleurisies are those of an actively inflammatory kind, which make themselves sharply felt from the beginning by pyrexia and pain. The treatment of such cases seems to me to be clear. It is this. At the outset, that is, within twenty-four or forty-eight hours at farthest, leeches should be liberally applied to the parts, according to the forces of the patient, and a poultice applied to receive the bleeding. As soon as the bleeding has ceased, the affected side should be bound down by strapping after the manner best described by Dr. Roberts. Of medicines, I advise a mild saline purgative at the beginning, followed by the use of mercury and chalk combined with Dover's powder in fractional doses, or in weakly patients by the use of Dover's powder alone. Between these powders, I give a mixture containing acetate of potash and large doses of liquor ammoniæ acetatis. By this method, I obtain far better results than were wont to follow my expectant treatment of former years. The fibrinous effusion which issues in these cases almost always subsides when it has reached its height; and, if this height be the height of the spine of the scapula and the fourth rib, I am for this reason never in haste to interfere by operation so long as the patient breathes in tolerable comfort and the other lung is well at work. On the other

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August, 1877.

hand, if the patient be uneasy, or if the entry of blood to the right heart be hindered, I do not hesitate to tap at once. The favourable aspect of operation in such cases is that suppurative conversion rarely occurs in these highly organized effusions, even if air enter the pleura. Once, in a case of impending death from double rheumatic pleurisy and pericarditis, all with effusion, we, being in haste, did not hesitate to plunge a bistoury into the fuller pleural cavity, and to allow the effusion to escape as it might, relying on the highly fibrinous quality of it which did not tend to suppuration. The wound soon closed, and the patient did well. Such effusions, being full of clots, are often difficult to remove by small cannulæ, or even to exhaust by aspiration; if opportunity permit, however, the proper plan is to use the aspirator with fine cannulæ, and to puncture the pleura repeatedly, drawing off what is to be had at each point. It is better to do this than to fumble in the first puncture, and the patient and his friends must be prepared beforehand for the probability of repeated punctures; I repeat, however, that operation is rarely needed in acute fibrinous pleurisy, and that its exudations, even if profuse, tend for the most to steady reabsorption. If, when all fever is past, such an effusion linger at its height or linger after a partial ebb, the use of a blister or repeated blisters certainly favours its removal. It is better to repeat the blisters than to allow the first or any one of them to proceed to full vesication. Sometimes, indeed, these measures may fail, and abiding dulness, silence, and immobility in the affected side will continue. Such a condition is often treated with indifference, and no doubt some time may elapse before such a side is completely restored to its normal state; nay, more, it is rare that the marks of such a pleurisy vanish as they came. More often they remain for years, or even for a lifetime. But, on the other hand, if the dulness, and other signs be considerable, I am very unwilling to treat them with neglect, for such conditions may end in serious impairment of the lung, and even to chronic interstitial fibrosis of the lung. It is my practice, therefore, and I speak from some experience, as pleurisy is very common in Yorkshire, to

put the patient under a course of mercury rather than allow this morbid state to remain. A combination of the bichloride of mercury with iodide of potassium and bark or iron may be given fearlessly for weeks, and will rarely fail to promote the removal of the remaining products of the inflammation and to restore health and activity to the affected organs. Such a course must needs be given most carefully, and the patient, on the conclusion of it, advised to take sea-air and tonic medicines. Routine drugging, pursued in ignorance of the natural course of disease, very rightly was displaced by expectant treatment; yet I fear that expectant treatment, having now helped us to learn more clearly the ways of disease, has in its turn sinned of omission to answer for as great as or greater than the sins of commission laid at the door of the apothecary.

I will now pass on to Class III, quiet effusive pleurisy in the serous stage. Although the acuter pleurisies may run to large effusions and to effusions poor in fibrin, yet we more commonly see the larger and poorer effusions in cases where the pain has been trifling and the pyrexia moderate if more continuous. A daily evening rise of two degrees is easily overlooked by the physician and easily regarded by the patient as mere malaise. Such patients, with one moiety of the chest full or nearly full of water, are treated with tonics to relieve debility and anæmia, or are sent to watering-places to recruit their strength, until, perhaps, their actual state is revealed by accident. If such effusions come on slowly, as no doubt they often do, the sufferer may complain of but little more dyspnœa than is common to most weakly persons, and one patient who consulted me was able to lie on either side and to sleep on either side, although his left pleura was crammed with effusion. On the other hand, such effusions may come on with great rapidity and destroy life by the sudden dislocation of parts. Such cases, however, are not likely to be misapprehended; as, although fever and pain may be slight or absent, the dyspnœa compels a minute examination of the chest. But, let me earnestly impress upon my brethren a warning which, sounded again and again, has not yet aroused the profession to a full sense of the

perilous state of those whose chests contain large effusions. Where the water floods the chest in a few days or hours, the alarm may be taken, it can scarcely be neglected; but those whose effusions have gathered more stealthily are in as great a danger if time pass and no precautions be taken. One terrible warning in my early life taught me this lesson, while it turned my heart to the search for help to these sufferers. When yet upon the threshold of my medical studies, I was standing on the terrace in front of Addenbrooke's Hospital waiting for a young girl who had descended from a market-cart and was walking, slowly it may be but firmly, towards the house. She had crossed the green, when suddenly a cry escaped her and she fell dead at my feet. The porter and myself raised her, and gave restoratives in vain. She was gone, and the cause of her premature and sudden end was the effusion of fluid into the left pleural cavity. Now, shocking as this was to one who saw it, it is by no means an uncommon accident. At least thrice in my experience at the Leeds Infirmary have patients thus fallen dead from the same cause, and some instances of the like have come before me in my private practice. Let him, then, who hesitates to tap the pleura remember that, before his next visit, his patient, seemingly so tranquil, may have passed into the deeper stillness of death. Whether the effusion, then, be rapid or be slow in its flood, if the cavity be full, operate without delay. This is, I believe, one of those golden rules to which there is no exception. If the effusion be below the capacity of the pleura, immediate action is less imperative. Speaking of myself alone, I have never seen death by syncope except from a full pleura, though I presume such a death is possible. It depends, no doubt, on a dislocation of the heart and great veins, such as to form clot, or directly to impede the filling of the auricle or auricles; and I believe such pressure is rarely exerted to any degree until the compression of the lung has reached its limit. Still, I shrink, even before a patient at his ease, from allowing the breadth of three fingers to stand between him and death. A sudden swelling of the tide might occur even in the night, and help be absent. Moreover,

the continued pressure of such exudation by soddening injures the lung, or by extending adhesions favours the permanent imprisonment of this organ, or by its own deterioration drifts towards an empyema. Nevertheless, with a patient of good promise, with fairly full arteries and respirations under 30, and whose exudation reaches no higher than the scapular ridge behind and the third rib in front, I counsel delay, warning the patient against rising up suddenly, and instructing his attendant to call the doctor in case of more numerous breathing or a change of complexion. If the patient be able to take solids, I advise a dry diet, gentle saline purgatives such as Hunyadi water, and syrup of iodide of iron with digitalis. Mercury I withhold, save as an occasional alterative. I do not strap the chest, as I prefer to be able to apply repeated blisters, stopping short of vesication. These quiet effusions are, however, hard to move, and so often increase that one is not sorry to have to operate and thus to shorten the duration of the case. In my inmost heart, I believe it will be found better in the end to tap all cases where more than two pints of fluid are present, as the results of medicine alone in quiet effusions are very tedious and unsatisfactory. An operation upon the chest is, however, as yet too unfamiliar and too dreadful to the public to permit us to turn to it hastily, and in these cases there is the not inconsiderable risk of so setting up an empyema, a risk nearly absent in mere fibrinous effusions on the one hand, and in mere dropsies on the other. It can scarcely be doubted, however, that tapping of the pleura, as it becomes better known and the procedure more perfect, will be applied to those smaller effusions which persist in spite of a short course of nursing and medicine.

In now confining myself to the larger effusions, let me again repeat, formally and unmistakably, that physicians must admit that the medicinal treatment of the larger quiet effusions is, on the whole, a failure, and where it succeeds runs the risk of injury to the lung, of empyema, and even of sudden death. Not only so, but pleuritic effusions in the right cavity, by pressing upon the vena cava and twisting it upon the heart, are not uncommonly

attended by dropsy in the legs and elsewhere. On the other hand, my own experience of operation in large serous effusion is very favourable; and, if I confine myself to simple cases and early operation, my results have been excellent, and have converted a serious malady into a moderate indisposition. Over and over again, by this procedure is fluid removed in bulk from the chest by one operation needing no repetition, and rapid recovery is obtained.

In opposition to some writers, I find that the chances against reaccumulation are in cases of early operation very moderate and even small; and, unless pus be formed, a third operation is in my experience quite rare. Add to this, that an illness of three months is reduced to an illness of three weeks, and the merits of early operation are even more convincing. The longer, however, operation is deferred, the less confidently can the best results be hoped for, the more danger of formation of clots and of empyema, and the more the danger of injury to lung and constitution.

The aspirator, which is valuable in highly fibrinous effusion, is even undesirable in serous effusion. It is better to allow the lung to expand at its own pace, and not to draw off more fluid than the lung can at that time replace. Even a partial relief of this kind generally leads to absorption of the remnant, and does not lead to severe cough and albuminous expectoration. Nor do I like instruments with angles in them, which are liable to become clogged. A fine trocar and cannula, the latter attached to a long flexible tube, through the wall of which the trocar should be passed on the distal side of the shoulder, is the best instrument. The tube closes upon the trocar as it is withdrawn, and no air can pass beside or after it, if carefully managed and the trocar be two-edged. A bayonet-pointed trocar wounds the tube too much. The instrument should be well carbolyzed before insertion, the tube filled with carbolyzed water, and the end immersed in a basin of carbolyzed water. By raising or lowering the basin, the syphon action may be increased or diminished at will. It is as well to keep a spray in motion about the puncture until all be over and the orifice closed with antiseptic dressing.

Now, of this simple operation our Yorkshire experience is so large that I may permit myself to marvel at the fear or hesitation which it excites, even in the medical breast, and, moreover, to doubt the reality of those untoward consequences which are said at times to follow it. That, if the operation be long deferred, its success is less sure, needs no reiteration; that a person in whom syncope is imminent may not always avert that syncope by operation, especially if the fluid be aspirated rapidly, is possible; that a tendency to clot, or the establishment of clot, in the central blood-vessels, is always to be feared in long standing cases; that a patient honeycombed by disease may die coincidentally with or even consequently upon the smallest operation is certain, but who is to be deterred by these events from taking the course of operation in a promising case?

In a paper like the present, we cannot discuss rare exceptions; we can only lay down general rules.

I will now pass on to Class IV—empyema. With empyema, operation of some kind is inevitable, and as, encysted empyemata apart, a pus containing pleura means a full pleura, and as again we have decided that all full pleurae are to be tapped promptly, there can be no difficulty in the matter of diagnosis. The presence of œdema in the wall of the thorax, however, will generally tell when the contents are purulent. That an encysted empyema may dry up is possible; but, if it do, it leaves caseous matter behind which may become a source of general poisoning—tuberculous or other—or it may remain latent for years and finally cause death, as in the case of a patient who died lately under my observation. In his case, the necropsy showed that an encysted empyema of ten years' standing was the cause of death by perforation of lung, etc., although apparent complete recovery had taken place at the time of the original illness. If I have one conviction in medicine more urgent than another, it is this: if pus or other septic material be present in the body, we must not rest until it is removed. I, therefore, dislike and reprobate all temporizing with an empyema. Out with it, and provide against the chance of reaccumulation. We are advised by some persons to

draw off an empyema by repeated aspirations.* I have seen two successful cases, so-called, of this practice. One spat pus within a month of his recovery, and the other died of hectic. Twice I have seen pus spat up while the systematic aspirations were carried out. I would not trust any reputed recovery under this plan till the patient had been watched for years. My two objections, and these complete ones, to repeated aspiration are: 1. Aspiration does not prevent the formation of a pulmonary fistula; 2. It does not prevent absorption, but rather favours it. By the pressure of a full cavity, absorption is often prevented and fever absent; draw off some of the pus, you relieve pressure, and absorption begins. I put before you charts illustrative of this; from them, you will see that by complete drainage alone fever is averted, and by the presence of fever after operation for empyema I detect at once a defect in the operation or a defect in the nursing. By a free opening at the lowest point of the cavity and as far back as possible, the pus must be run out, and complete drainage secured. The whole must be done under the antiseptic method, and antiseptic dressing continued. I have rarely found injections of any value, and should only resort to them in case of very fetid retained material, and should then use them of the mildest and simplest kind. But this plan, it is said, means a three months' illness, and perhaps death by exhaustion. Be it so, and be it remembered that empyema taking its own course is a three years' illness, and death probably at the end of that. Nor can any sleight of hand make a huge internal abscess anything but a terrible infliction. I can only say that the miserable broken down creatures who seek shelter in a hospital are generally cured completely in twelve or fifteen weeks; and that in private practice I have never yet lost a reasonably favourable case. As the cavity contracts to small dimensions, the drainage tube must be shortened. If a pulmonary fistula have formed before the patient comes under treatment, a counter-opening must be made and the chest drained, as in other cases.

* I mean here aspirations as the chest refills. On the other hand, the more recent proposal to aspirate every other day, or at very short intervals, is, in my opinion, well deserving of careful trial.

Class V. Pleural dropsies will not detain us long. These being often dependent upon disease elsewhere, and, therefore, often double, puncture should be used only in case of urgency. Fortunately, in these cases operation is of the simplest kind. There is no fear whatever of pus-formation, and the water may be allowed to run through an unguarded trocar, as in the case of ascites. At the same time, if circumstances permit, it is well to form an antiseptic atmosphere around the opening.—*British Medical Journal*.

RECTAL ALIMENTATION.

BY AUSTIN FLINT, M.D.

* * * * *

INDICATIONS FOR RECTAL ALIMENTATION.

In cases of disease seated in the œsophagus, at the cardiac orifice of the stomach and at the pylorus, involving sufficient obstruction to prevent adequate nutrition, it is a very obvious indication to nourish by the rectum. I can recall cases in my past experience in which, with our present knowledge of rectal alimentation, as there is reason to believe, life might thereby have been much prolonged and suffering alleviated. In a case of cancer of the œsophagus, occurring in the practice of Dr. Purple within the past year, suffering from a sense of hunger was removed, and probably death postponed, by nutritive injections. Recently, in a case treated by Dr. Varrick, of Jersey City, a stricture of the œsophagus occurred which was relieved by the use of bougies. Before this was accomplished, the patient, who was extremely feeble, would probably have died had he not been sustained by food introduced into the rectum. He was subsequently able to take very little aliment into the stomach, owing to an invincible anorexia probably connected with degeneration of the gastro-intestinal tubules, and, under these circumstances, life was apparently prolonged by a continuance of the nutritive injections.

As regards prolongation of life and recovery, of course, the success of rectal alimentation will depend greatly on the nature of the disease irrespective of the mechanical obstruction. In cases of carcinoma, the most frequent of the ob-

structive affections in these situations, recovery is not to be expected, and postponement of a fatal ending, for a greater or less period, is all that can be hoped for, beyond relief of the suffering incident to death by slow inanition. Such cases, it is evident, afford no criterion of the expectations and hopes which may be entertained when obstruction alone threatens life, and especially when the obstruction may be removed if only time can be gained.

In gastric ulcer, to sustain the patient wholly by the rectum, thereby securing for the stomach absolute rest, is not only fulfilling an important indication, but there is clinical proof that by this measure alone the disease is effectively treated. Twelve years ago I treated in this way a case in Bellevue Hospital, nourishing the patient exclusively by injections of the essence of beef and milk, repeated every four hours for three weeks. The treatment would have been continued longer but for the irritability of the rectum. However, at the end of that period the stomach tolerated food, and the patient recovered. Dr. Balthazar Foster has reported several cases in which complete rest of stomach, thus secured for a few days, was followed by speedy recovery. Other cases have been reported in medical journals, showing the success of the treatment.

The treatment is indicated in cases of hæmatemesis (gastrorrhagia), whether the hæmorrhage depend on gastric ulcer or not. The rationale is the complete functional rest of the stomach which the treatment secures.

On the principle that rest of the inflamed part is of primary importance in the treatment of all inflammatory affections, nourishment by the rectum is indicated in acute gastritis. In a case recently occurring in the practice of Dr. Leale, nothing was introduced into the stomach for ten days. The patient was nourished by injections alternately of beef essence, chicken broth and milk, repeated every two hours. No form of opiate was added to the injections. After the first day or two, no dejection occurred during the remainder of the time that the nutritive injections were continued. The symptoms of gastric inflammation, under this treatment, disappeared; and the patient was so well satisfied with his rectal diet, and so apprehensive of the

return of his gastric distress, that it was difficult to persuade him to return to alimentation by the mouth. When he consented to the change, the stomach was found to tolerate food without inconvenience. This case was seen by Dr. Purple and by me in consultation. Quite recently a case of acute gastritis caused by alcoholic excesses, in my service at Bellevue Hospital, was treated by nutritive injections, which, with a blister to the epigastrium, constituted the whole treatment. The gastric symptoms speedily diminished, and after a few days the patient was able to ingest food without inconvenience.

Persistent irritability of the stomach and almost complete intolerance of food,—a purely functional affection, occurring chiefly in women and especially in early life,—is an extremely rebellious malady, with which every physician of much experience is familiar. There is ground for the opinion that in these cases securing complete temporary rest of the stomach will be found to be the most effective plan of treatment. Within the past year I have met with two instances in which it has proved successful. One of the cases was in the practice of Professor Lusk, and the other was a patient of the late Professor Crosby. In the latter case Leube's meat solution, as prepared by Frederick Hoffman, apothecary and chemist, of this city, was used; and in the former case the form of rectal diet employed by Leube, which will be noticed presently. Prof. Lusk's patient was nourished by the rectum for seventeen days. During this time there was no apparent loss in weight. Prof. Lusk states in a note kindly furnished, that during the greater part of this period "the stomach was unable to retain even a swallow of water, so that, in addition to the nutritive enemata, considerable quantities of water were introduced into the system by the bowel to allay thirst." He adds: "I have had a number of similar cases since, but in all the irritability of the bowel has proved an insurmountable obstacle to prolonged treatment." In a recent hospital case of typhoid fever there was exceptionally constipation, and this was associated with great gastric irritability. The patient, under these circumstances, was nourished for two weeks by the rectum. During this period convalescence

took place, and the patient was so well satisfied with the rectal alimentation that she was reluctant to begin to take food by the stomach.

Rectal alimentation is clearly indicated in the cases of invincible anorexia with progressive diminution of weight and strength, ending fatally from inanition, the cases occurring in persons of middle and advanced age, and the pathology, probably, involving degeneration of the gastro-intestinal tubules. I have not clinical data sufficient for forming an opinion in relation to the success of the measure in these cases. It is to be feared that the morbid conditions which underlie the inability to ingest food, and the defective ability to digest in the stomach and small intestine, will be found to prevent the digestion of aliment introduced into the rectum.

Finally, resource is to be had to rectal alimentation when, owing to blunted mental perceptions or coma, an adequate amount of food cannot be introduced into the stomach by voluntary deglutition. If alimentation by the rectum will suffice, it is an easier method, under the circumstances, than the introduction of food into the stomach without the voluntary co-operation of the patient. And the rectal method of nourishment, if sufficient, is to be preferred to its forcible administration through the cesophagus in spite of the patient's resistance.

RECTAL DIET.

What kinds of aliment are best suited to form a rectal diet, is an important point of inquiry. With reference to this inquiry, I can not pass by the physiological question, how is digestion in the large intestine effected? From the failure to procure from the mucous membrane of the colon and rectum a digestive juice, and from experiments on lower animals, physiologists have been led to doubt the ability of these portions of the alimentary canal to perform the function of digestion. Yet, secreting glands analogous to those of Lieberkühn are found in considerable numbers in the large intestine, and it is not difficult to understand that they may take on a vicarious activity when the glands of the stomach and small intestine are not excited by the presence of ingesta. This supposition is not inconsistent with the absence of a digestive juice in the large intestine

when digestion in the stomach and small intestine is not interrupted. Another supposition which I will venture to make, is that food introduced into the rectum excites secretion by the gastric and intestinal glands, and in the absence of ingesta in the stomach and small intestine, the fluids secreted by these glands pass into the large intestine in a sufficient quantity to effect digestion within the latter. Whatever may be the explanation, clinical experience fully establishes the fact that the digestion of animal broths, milk and eggs, takes place in the rectum without the addition of agents,—namely, pepsin and hydrochloric acid,—which are capable of affecting artificial digestion. This is not saying that these agents are not useful as conducive to digestion within the large intestine.

The articles of diet just named have generally been used in nourishing by the rectum. That they are adequate to the needs of assimilation and nutrition, is demonstrated by the cases which have been cited. Leube has proposed a form of rectal diet, called the "pancreatic meat emulsion," which is prepared as follows:—From five to ten ounces of meat are chopped very finely, and one-third of this weight of finely minced pancreas (of the pig or ox), free from fat, added. This mixture is then rubbed up in a mortar with five ounces of lukewarm water, being reduced to the consistency of thick soup. Leube's "meat solution" would seem to be not less appropriate as a diet for the rectum than for the stomach. This differs from his rectal food in having been exposed to the temperature of boiling water, in a Papin's digester, for over thirty hours, hydrochloric acid having been added, and afterwards nearly neutralized by the carbonate of potassa.*

* The formula for the meat solution is as follows:—Take 1,000 grammes of beef, free from fat and bone, put into an earthen or porcelain jar, and add 1,000 C. C. of water and 20 C. C. of pure hydrochloric acid. Place the jar in a Papin's digester, screw the cover tight, and boil from ten to fifteen hours, stirring occasionally during the first few hours. Then remove the contents of the jar to a mortar, and rub the mass until it has the appearance of an emulsion. Boil again for fifteen or twenty hours without raising the cover of the digester. Add pure potassium carbonate until the mass is nearly neutralized, then evaporate to a pulpy consistence. Vide American edition of Ziemssen's Cyclopædia, Vol. XII, note before table of contents. This article is prepared by F. Hoffman, 797 Sixth Avenue, New York City.

This form of diet was used in the case which I saw with the late Prof. Crosby.

Leube's paper on nourishment by the rectum contains a number of experiments on dogs, proving that his "pancreatic meat emulsion" disappears from the rectum and is assimilated. These experiments are open to the criticism that the "dickdarm" of the dog may not be the analogue of the large intestine of man. Clinical experience, however, amply sustains the application of the results of these experiments to the human body. Leube assumes, at the outset, that milk, eggs and meat broths, are unsuited for rectal alimentation. In this he is in error, as shown conclusively by clinical experience. He errs also, probably, in thinking that there is not sufficient proof of the competency of the large intestine to take any efficient part in the digestive process; in other words, that the digestion which takes place in this situation is wholly artificial. His studies, although useful, are one-sided, inasmuch as they have for their object chiefly to substantiate the claims of the "pancreatic meat emulsion," which he seems to think should exclude other forms of rectal diet. It is a rational supposition that what is true of digestion in the stomach and small intestine, is true also of digestion in the large intestine, namely, a varied diet is better than the persistent use of the same kind of food prepared in precisely the same way; in other words, the alternation of different kinds of food may be of importance. Reasoning by analogy, it is probable that the addition of agents which are found to promote the digestive process in the stomach, and which are capable of effecting digestion out of the body, may be advantageously added to the rectal diet. I refer especially to pepsin and the hydrochloric acid. Concerning these and other points relating to rectal diet, the results of further clinical experience are desirable. If some enthusiastic physician or medical student were to submit himself to a series of well devised, carefully conducted experiments, he might hope thereby to furnish valuable practical information bearing on this important topic.

Thus far, in the cases which I have had the opportunity of observing, the articles of diet

employed have been the "meat solution," and the "pancreatic meat emulsion" of Leube, "Liebig's extract of meat," with milk, milk either alone or combined with egg, beef, mutton and chicken broths. These varieties have severally proved satisfactory, but it is desirable to determine more accurately than our present knowledge enables us to do, the combinations and variations which render rectal alimentation more effective, and also whether the range of rectal diet may not with advantage be extended. The basis of increased knowledge in these regards must be, not theoretical considerations, nor the results of experiments on inferior animals, but experimental observations, in health and disease, on the human subject.

PRACTICAL RULES IN RECTAL ALIMENTATION.

Practical rules based on our present knowledge of rectal alimentation, will doubtless receive important additions and modifications from experimentation and further clinical experience. In the cases which have come under my observation, the nutritive injections have generally not been carried above the rectum. It is easy to introduce a flexible tube, and inject nutriment into the colon. From half a pint to a pint of milk was in this way frequently injected in a case which I saw many times with Dr. Linsly and Dr. Ellsworth Eliot, the patient being an aged man suffering from a complication of exhausting maladies, and either unable or unwilling to take by the mouth an adequate amount of food. These injections were retained, causing no inconvenience, and apparently contributing to alimentary support. It remains for clinical experience to determine whether this method has not decided advantages.

Introduced into the rectum, the quantity at each injection should not, as a rule, be large. From three to six ounces may be stated as the average quantity. The intervals between the injections should be from three to six hours. In the case seen with Dr. Leale, they were tolerated without inconvenience every two hours. If not well tolerated, a few drops of laudanum, or a drachm of the United States solution of morphia, may be added to each injection. This is not necessary in all cases.

It is a point to be settled by experience whether the addition of an opiate impairs the activity of digestion in the large intestine; in other words, whether opium has the effect here which it has upon stomach digestion. Prior to commencing rectal alimentation, the contents of the large intestine should be removed by simple enemas, and, if not contraindicated by the feebleness of the patient, an efficient laxative should be given by the mouth. The nutritive injections sometimes provoke fecal evacuations at first, owing to the contents of the large intestine not having been entirely discharged, and afterward they are retained, no evacuation taking place for days or weeks, without any uncomfortable sense of accumulation. The latter fact was strikingly illustrated in the case reported by Dr. Purple, and also that seen with Dr. Leale. As a substitute for drink, when the need for more liquid than that contained in the nutritive injections is expressed by thirst, and when water or pieces of ice are to be withheld from the stomach, simple water may be injected, and sponging freely the surface of the body, is a means of the introduction of liquid. In Dr. Purple's case, thirst was relieved by this means. If alcoholics be indicated, they may be either added to the nutritive injections, or properly diluted and injected separately. Alcoholics administered by the rectum are not, perhaps, open to the moral objections sometimes made to their use *per orem*. The addition of a little brandy or whisky does not appear to impair the ability to retain the injections. If, however, it should seem to be otherwise, alcoholics, if indicated, may be introduced hypodermically.

It happens not infrequently that nutritive injections at first are not retained, and they are discontinued in consequence. If persisted in, however, they may, after a short time, be well tolerated. As Leubé says, the rectum seems to acquire the ability to retain nourishment. On the other hand, the injections are first retained in some cases, but after a time the rectum becomes intolerant of them. When the latter happens, it is advisable to discontinue them for a day, and, after this brief period of rest, the ability to retain them may be regained.

It is certainly not necessary in all cases as

advised by Foster and others, to wash out the rectum by a simple enema before each nutritive injection. So far as my experience goes, this requirement is the exception rather than the rule. I have at this time under observation a case of long protracted functional anorexia and vomiting with great prostration, in which for many weeks the alimentation has been, for the most part, rectal. In this case, for two weeks or longer, no dejection has occurred, without any inconvenience from constipation, nutritive enemata being almost invariably retained. I may add that in this case improvement has been slowly progressive, and for the past week enough food has been retained by the stomach to render rectal alimentation unnecessary. During this week free evacuations from the bowels have taken place.

The nutritive injection should be tepid, that is neither hot nor cold. Directly after their administration, firm pressure should be made, by means of a sponge or napkin, upon the anus until the desire for their expulsion passes away.

Evidence that the rectal diet is sufficient in quantity and suitable in kind, is afforded by the feelings of the patient. If the injections meet the requirements for alimentation, they are followed by a sensation of comfort, such as is experienced after a satisfactory meal ingested in the ordinary way. In the case reported by Dr. Purple, the patient described the effect of each injection as fully satisfying the desire for food, and conducive to pleasant sleep. It is a striking fact that in several of the cases which I have observed, the complete satisfaction derived from alimentation by the rectum, has produced, not merely indifference, but a disinclination toward stomach digestion.

In conclusion, if the cases and remarks submitted in this paper have contributed but little to our knowledge of rectal alimentation, I trust they may be of some service in directing attention to the importance of the subject.—*American Practitioner*.

Alfred Hudson, M.D., has succeeded the late Dr. Stokes as Physician in Ordinary to Her Majesty in Ireland.

Surgery.

ON ROTARY-LATERAL CURVATURE OF THE SPINE.

BY PROFESSOR LEWIS A. SAYRE.

Delivered at Bellevue Hospital, November 28th, 1877.

Reported by P. BAYNBERG PORTER, M. D.

GENTLEMEN:—Before commencing the subject which I wish to bring specially before you to-day, I will show you the patient upon whom I performed what is known as *brisement force*, for ankylosis of the knee joint, just one week ago, and whom I have not seen since. The house surgeon informs me that, except immediately after the operation, it has not been necessary to give him a single dose of opium, on account of any pain, and that there has been no febrile reaction or inflammatory trouble whatever. About three weeks ago I made a little attempt to move the patella, and succeeded in gaining a small amount of motion, but not having the requisite time then to finish the operation, the limb was left undressed; and in consequence of that very slight movement an acute constitutional fever set in, from which the patient did not recover for a fortnight, and which for ten days required very active treatment, and the constant application of ice to the inflamed joint. All this followed from simply neglecting to employ the proper after-treatment, upon which I lay so much stress. In the operation a week ago I used an infinitely greater amount of force; yet because the joint was properly dressed afterward, there has not been, as you see, the slightest constitutional disturbance in consequence.

You will remember that at that time I succeeded, after a good deal of muscular exertion on my own part, in flexing the leg to less than a right angle, and then by working it backward and forward I broke up the adhesions in the most thorough manner and knocked off all the little projecting points which might be a source of irritation or stiffness in the future. Then the appropriate dressing was applied, and upon this dressing, you will remember that I told you in the most emphatic manner, the entire success of the operation depends. A bandage was applied from the very extremity of the limb, great care being taken to place cotton over all pro-

jecting points, and especially to put a large sponge or bunch of cotton in the popliteal space, in order to remove pressure from the flexor muscles; adhesive strips were adjusted, by which extension could be made; and a small piece of sponge was placed over the femoral artery in its lower third, the bandage being carried over it with sufficient tightness to make partial compression of the vessel, and thus diminish the blood supply of the joint. This last manoeuvre is carrying out the idea of the late Dr. David L. Rogers, who ligated the artery for inflammation of the joint; and Dr. Stephen Smith informs me that it was done before him by Dr. Onderdonk, though I have not met with any notice of the fact myself. You must be aware of losing the limb by making this compression too great, for if the artery is too much occluded, of course you will have gangrene result. It is important in the after-treatment that constant extension should be kept up, and that the slightest motion should be prevented. In the present instance plaster-of-paris was used for the latter purpose, and it is the first time that I have employed it in this connection.

The house surgeon having now cut through and removed the plaster casing, we will take off the bandage and look at the joint, in which we desire to get motion, if possible, though we may not succeed in this. There is fortunately no heat about the knee, and, strange to say, no ecchymosis from extravasation of blood, which is so common after such rough handling as this limb has received. I am now able to make slight movement in the joint, and the patient says that it does not give him the slightest pain. This is quite exceptional, for very often it is necessary to give chloroform before making any motion whatever. I have obtained sufficient movement to prevent adhesions from forming, and each succeeding day it will be found that a little more motion has been gained, until at last the patient will be provided with an instrument with a key, by which he can make the motion himself. In the meanwhile the sponge may now be left off of the artery, and friction, shampooing, and electricity may be used about the joint.

Having two or three very interesting cases of rotary-lateral curvature to show you to-day,

I should like to make a few remarks on that subject. This affection is a vast deal more frequent than most persons would suppose. Formerly I used to have an idea that it was pretty nearly confined to women and young girls growing up; but of late I have been quite surprised to find such a large number of men afflicted with it. Until the last two years I always disliked very much to have anything to do with such cases, because I felt that I could really do nothing for them. In Pott's disease I had some success among the rich, though the treatment was not very satisfactory, with Taylor's splint; and among the poor, who could not afford to buy the apparatus, I got along a great deal better with the plaster-of-paris "turtle shell" applied to the back. But with lateral curvatures I could not do anything at all, and I used to send them all to anybody who said he could cure them. I like Dr. Banning's method the best, and he used to get most of them; but in the end they all came back again without having received any benefit, and some of them worse than before. You see here half a cart load of old iron, steel and brass, which is really a part of the various appliances which patients have been wearing when they have consulted me for treatment. Mr. Broadhurst's apparatus, which I now show you, for screw and lever power, excels any that I have ever seen; but the trouble with it is that after the screw is turned to a certain point it only does injury instead of good. The torture resulting from such instruments is almost indescribable, and the agony that I have seen patients endure while wearing them has been most affecting. Yet a young girl with a large fortune, a pretty face and a crooked back will suffer anything and do anything in the world if she thinks she can only be made straight by it.

But, owing to recent progress in this department of orthopedic surgery, I am glad to say that we are now able to discard them all, and Dr. Judson, of this city, has given us a beautiful demonstration, which shows why it is that we can improve upon the old methods of treatment. The grandchild of one of the first surgeons in England, who had lateral curvature, and was also supposed to have hip-joint disease, for a

long period wore this elaborate back and leg splint which I here show you, and which weighs no less than forty-two pounds. At last the agony of the child became so great that he could not bear the instrument any longer, and during my recent visit to England I was requested to see him. On making a careful examination I found that there was no hip-joint disease whatever, but that the leg on the affected side was an inch and a quarter shorter than the other, in consequence of diastasis of the hip, which had occurred in early childhood, and which is, as you know, equivalent to a fracture of the thigh. The child had gotten well with simply a shortened limb; but, owing to this, the back had become temporarily distorted, a primary and secondary curve of the spine resulting from his efforts to keep his equilibrium. An inch and a half was added to the sole and heel of the shoe worn on the shortened limb, and when this was put on it was found that the back became perfectly straight, and this instrument was, in consequence, presented to me as a trophy of correct diagnosis. This case illustrates very forcibly the paramount importance of always getting at the cause of a curvature.

I now exhibit to you Dr. Judson's very ingenious contrivance for showing the philosophy and mode of production of lateral curvature. It is, as you observe, simply a spinal column with a flexible steel rod running through it, and the several vertebræ attached to the frame-work, in which it rests by means of elastic ends. When pressure is made upon the top of the column, it will be observed that rotation of the vertebræ is always produced, and that there are always two curves, a primary and a secondary (or, it may be, a number of primary and secondary curves), resulting. So long as the column is compressed, you can put on all the instruments in the world, and the curves will still exist, and until it can be extended, it is utterly impossible to straighten it. You may even crush in the ribs with the force applied; but no power on earth will make the spine straight until it is loosened at the one end or the other. For this admirable demonstration, as I said, the profession is indebted to Dr. Judson.

The first case that I show you to-day is that

of a young lad, who first came to me three days ago, and who even in that short time has become much less crooked than he was then. Suspension by the head and hands was first practised by Dr. Benjamin Lee, of Philadelphia, in following out the idea of the late Dr. Mitchell, who recommended suspension by the hands alone, but never brought the matter prominently before the profession. The first time that I suspended this young man, the latissimus dorsi muscle stood out so prominently that I thought I should have to make a subcutaneous section of it, but I now find that this will not be at all necessary. During the three days he has been practising self-suspension by means of the tripod and suspensory apparatus which I have had occasion to show the class so frequently, and he is already greatly improved. Having taken a measurement of the patient's height standing, we now proceed to suspend him equally by the head and axilla, in order to put on the plaster jacket. Before this is applied the patient should always procure a skin-fitting shirt, which should be knit to order, after careful measurement. Before putting on the plaster, a folded towel, which I am in the habit of calling a "dinner-pad," should be placed along the anterior part of the chest abdomen, and we are then ready to commence. The bandage, which, as you know, is made of crinoline, into which powdered plaster has been thoroughly rubbed, and is to be soaked through with water when it is to be used, should be snugly wound around the trunk without being at all tight; and as the house surgeon is making the successive turns, I follow with my hand, rubbing the folds well into all the irregularities of the surface. The latter is a very important part of the proper application of the plaster dressing, and should never be neglected. It also prevents air from remaining between the folds of the roller. After one or two thicknesses of the bandage have been applied, narrow tins, about a foot in length, may be laid along the thorax, as they help to support the dressing, without adding materially to its weight. The jacket being all complete now, I proceed to make use of a device for causing the plaster to set quickly, which I obtained from an Irish lady during the last summer, and that is the application of a heated

iron, and for this purpose I have had constructed a little roller, which is very handy. It also adds a hardness, finish, and polish to the exterior dressing which it would not otherwise have. Before the plaster gets thoroughly hardened (after laying the patient down), your assistant should hold the top of the shirt firmly while you draw out the "dinner-pad," and with your hands you should then press upon the casing, just in front of the anterior spinous process of the ilium, on both sides, so as to flatten it out a little and remove pressure over the bony prominences. If the dressing seems a little weak at any point, it is very easy to strengthen it by wetting the hands and rubbing on some more plaster; and if the jacket extends too high up under the axilla, or is found to be so long as to cause discomfort when the patient sits, it should be cut a little at these points. It is in such careful attention to little details that the success of the treatment in a large measure depends. The plaster being sufficiently hard, the patient may stand up again, when we find that he has now gained, by actual measurement, one inch and some eighths by this single application of the jacket. It is probable that as time goes on, he may unfold at least half an inch further.

The second patient is an adult man who ought to have been fully six feet high, but who is, you will observe, very much less than that. As he suspends himself by his head, and raises himself by grasping the rope with his hands above it, you will notice that the back straightens a good deal; but this is a very bad case, and in such it takes several months to get the ribs into the right position, and sometimes they never yield. Whatever you can gain by suspension, however, you can retain by means of the plaster. When the patient is not suspended, you will observe that there is in his side a very deep depression, and when I place my hand in it, it is pressed upon very forcibly by the distorted ribs. I regret to say that the iron cross-piece of our tripod, which was not constructed of good material, has given way, and in consequence we will not be able to apply the plaster dressing to this patient at present.

In conclusion, I will make a few remarks on

the after-treatment. Each patient should be provided with an apparatus for practising self-suspension. When at home, it can be attached to the wall or ceiling by means of a strong screw, and when the person is travelling a folding tripod should be carried along. Every night and morning the patient should suspend himself or herself three times, and during each suspension should make three deep and full inspirations. It was apprehended by some that respiration would be interfered with by the plaster jacket; but in every single case that has been under my care the power of respiration has been markedly increased, as actually demonstrated by the spirometer. This increase is usually from sixteen to twenty-two cubic inches. The colour of these patients is usually very bad before treatment, owing to the impeded circulation, but at once changes when they have been suspended and the plaster applied. There was one young lady I remember in particular, who was sent to me by Dr. Mary Putnam Jacobi, and who had always previously been exceedingly pale, but whose cheeks became as rosy as any you could wish to see in the short space of twenty-four hours. In the course of a few days after a jacket has been applied, it will be found to have become too loose, and it should then be cut down and tightened, or else an entirely new one applied. It may then be worn from one to four weeks, as the case may be, and somewhat later it may be cut down the front and made to lace up like a corset. Still later in the treatment, when it is no longer necessary to wear the plaster jacket, an appropriately made corset may be used, with great benefit, in its place.

The old notion of curing spinal curvature by lifting the axillæ is an absurd one, for the axillæ have really nothing to do with the spine; but it is a very different matter when the patient suspends himself by the hands placed above the head. In that case you in reality elevate the ribs by means of the serrati muscles; and if you can fasten the thorax while thus stretched out to its fullest extent, and then continue to maintain it in that position, you have gained a very great deal, as must be evident to the dullest comprehension. This the application of the plaster jacket enables us to do, and in the most successful manner.—*Med. and Surgical Reporter.*

ON STRICTURES OF THE INTESTINE STATISTICALLY CONSIDERED WITH REGARD TO DIAGNOSIS AND TREATMENT.

We append a synopsis of a paper on this subject jointly prepared by Dr. Sidney Coupland and Mr. Henry Morris of the Middlesex Hospital, and read at the late meeting of the British Medical Association at Manchester. The subject is considered under five headings, (1) Situation of strictures, (2) Nature, (3) Perforation, (4) Treatment, and (5) Diagnosis; and the sources of enquiry were the *post-mortem* records of the Middlesex Hospital from 1844 to 1877 and the *Transactions of the Pathological Society* from the inception of the Society in 1846 to date. The former source afforded 31 cases, the latter 32.

I. SITUATION OF STRICTURES.—Out of the 31 cases in the hospital records in no fewer than 27 was the disease found in the large intestine. Of the remaining 4 cases, in 1 it involved the ileo cæcal valve, in another the lower end of the ileum, in a third the upper part of the ileum, and in the fourth the jejunum. Out of the 32 recorded in the *Transactions* 31 involved the large bowel alone, and 1 the lower end of the ileum and the cæcum. No strictures of small intestine are recorded by Brinton, Fagge or Duchaussoy, and hence it would appear that strictures of the ileum, or of the gut above, are of extreme rarity. In one of the cases here referred to the stricture was so small as only to admit of the passage of a No. 7 Catheter, and yet it had given rise to no symptoms during life. In 58 out of 63 cases therefore the seat of stricture was in the large intestine. Out of the 27 Middlesex cases in 24 the stricture was in the sigmoid flexure and rectum (12 in each), in 2 in the middle of the transverse colon, and in 1 in the descending colon. Out of the 31 cases in the *Pathological Transactions* we find 1 in the cæcum, 3 in the hepatic flexure, 2 in the splenic flexure, and 2 in the middle part of the transverse colon, 2 in the descending colon, 13 in the sigmoid flexure, and 8 in the rectum. Thus in round numbers nearly three-fourths of the cases affect the lower end of the intestines.

II. NATURE OF THE STRICTURES.—It may be stated in general terms that the majority of the strictures are malignant. The absence of secondary infection of remote viscera may be explained by the fact that the new growths mostly belong “to the class of Epitheliomata, which are notoriously the most local of all forms of cancer, and also possibly because they lead to fatal results before the system comes to be infected.” The writers are inclined to regard those strictures presenting to the naked eye the appearance of “annular ulcers” as being malignant, since microscopically they present infiltration of the deeper tissues with an exuberant growth of cylindrical epithelium. A small number are due to scirrhus and colloid cancer, and the remainder are due to cicatrization of tubercular, dysenteric and syphilitic ulceration, the latter being chiefly limited to the rectum. Out of the 32 cases recorded in the *Transactions* 18 are recorded as cancer, 8 as simple stricture (of which 7 affected the sigmoid flexure, and some were probably epithelioma), 1 as tubercular ulceration of sigmoid, 2 of the same region not classified, and 2 syphilitic strictures of rectum, and 1 dysenteric ulcer. Out of the 31 in the Middlesex register, 20 were undoubtedly cancerous, 7 described as simple strictures (of which some were in the form of “annular ulcers”), and 4 as “ulceration with stricture.”

III. PERFORATION.—In a large number in which the obstruction was complete and unrelieved by operation up to the time of death, the fatal issue was due to perforation of the gut either just above the seat of stricture or at the cæcum. The reasons why the cæcum suffers in this way are: its shape—a mere *cul-de-sac* acting as a reservoir—its dependent position, which favours accumulation, and its fixity between the abdominal wall in front and the musculus iliacus behind, and the constant chafing to which the distended gut is subjected between these two large muscular masses.

IV. TREATMENT.—In those cases of rectal cancer in which the diagnosis by means of physical examination is easy, of course, the only rational procedure is the performance of left colotomy; “and all, in such cases, recognize

the futility of delay, and the long-lasting relief, for months, or even for years, frequently obtained by that operation.” “In all other cases, where the history is one of chronic obstruction, where the age of the patient favours the view of cancer, where, in fine, it is probable that a stricture of the bowel exists, then, without wasting time over repeated injections, administering powerful and harmful purgatives, we think that recourse should speedily be had to colotomy in the right loin.” Right colotomy is recommended under these circumstances, because in about one-fourth of the cases the stricture is higher than the sigmoid flexure, and in all an undue strain is thrown upon the cæcum which, if not soon relieved, will give way beneath the pressure. “The danger of delaying this operation cannot be too strictly insisted upon.” The disease may be seated in the cæcum itself or in the small intestine, and under such circumstances the operation for right colotomy may find the ascending colon collapsed and empty, the wound in the loin should then be stitched up and enterotomy performed, or the small bowel may be opened at the loin if thought desirable. “For ourselves we may say that to us it seems that, in all such cases, where the distention of the intestines is a source of suffering as well as of danger, the operation of enterotomy is as imperatively called for as is that of puncture of the bladder in cases of over distension from impermeable stricture, and notwithstanding that fatal disease of the kidney may be already established.” They regard a free opening into the bowel as more effectual and safer than acupuncture. “It is true that many hold with Trousseau that puncture is not dangerous; but in a recent discussion at the Clinical Society of London, there appeared to be a pretty general consensus of opinion that acupuncture of the bowels was in many cases attended with considerable risk.”

V. DIAGNOSIS.—This is a matter of much difficulty; and “it is often impossible to be sure whether the disease is situated in the small or large bowel.” All rules have occasionally been found wanting; and the amount of fluid which may be injected, auscultation over various parts during its injection, and

even the passage of the long tube have proved fallacious. If digital examination have proved negative, it may be worth while to have recourse to the method, largely employed by Simon of Heidelberg, and first practised in England by Maunder, of introducing the whole hand into the rectum. *A propos* of this a very pertinent caution is inculcated in the remark, "This method was employed in one of our cases of stricture of the sigmoid, but, owing to the folds of the canal the stricture was not reached; and it was well that it was not, for at the necropsy subsequently, the bowel at the seat of stricture gave way on the slightest traction." Others have been more successful in reaching the stricture, and also in bursting the gut. But fortunately the precise determination of the seat of stricture is not of primary importance. "We know that three-fourths of the cases of stricture involve the rectum and the sigmoid flexure; and we know that of the remaining one-fourth a very small proportion are seated above the ileo-cæcal valve." "We know also that the chief part to suffer from the effects of stricture of the large bowel is the cæcum; and we know that if the ascending colon be opened, in 90 per cent. of these cases the opening will be above the seat of stricture, and will also give relief to the over-distended cæcum; whilst, as for the remainder—that is, those cases in which colotomy fails in its object—enterotomy should be performed, and relief thus afforded, although it may be with but a very imperfect conception as to the exact locality of the source of obstruction."

DETECTION OF PARTICLES OF HEPATIC STRUCTURE IN ABSCESS OF LIVER.—Dr. Samuel Fenwick recommends (*Lancet*, Nov. 17, 1877) a careful examination of the discharge of a hepatic abscess, however produced, as the amount of hepatic or pulmonary structures that may be present is the best indication of the gravity of the case. The same method of procedure should also be extended to the examination of the discharge from other organs, and thus not only may the exact structure from which the pus proceeds be detected, but the rate at which the ulceration is progressing may be ascertained, and thereby a more accurate prognosis formed.

IRRIGATION OF THE LARGE INTESTINE.

BY C. W. DULLES, M. D.

Some time since, in reporting a clinical lecture of Dr. Alois Monti, of Vienna, (*Philadelphia Medical Times*, August 4, 1877, p. 517), I gave an account of the method of irrigating the large intestine, which he uses so successfully in treating inflammatory conditions of that part of the bowel.

About the time of this publication I met one day Dr. W. C. Barrett, who spoke to me of a severe case of infantile enteritis then under his care. The child was aged six months; had been very ill, vomiting and purging incessantly; had at that time a rapid, feeble pulse; was in a state of extreme depression, and he thought must die. He had employed the usual remedies,—chalk, bismuth, opium, aromatic and astringent tinctures, with enemata of laudanum and acetate of lead; but all apparently in vain. Consequently he was quite ready, at my suggestion, to try the plan of irrigating the large intestine alluded to. This he carried out with a so-called fountain syringe, to the tube of which was attached a flexible male catheter. This being introduced into the rectum, cool—not cold—water was allowed to flow from a height of about two feet until good distention was secured, when with scarcely any pressure the end of the catheter passed smoothly through and beyond the sigmoid flexure, going well up into the descending colon. The water was now allowed to flow steadily on until about a pint and a half had entered, and inspection and percussion showed a large portion of the colon to have been filled. All medicine was then stopped, except *mistura cretæ*, and for food, milk was allowed and the sucking of a piece of slightly-roasted beef.

The next day there was a marked improvement. "The method," says Dr Barrett, "worked like a charm." He now repeated the irrigation, using not quite so much water. The improvement continued, and convalescence was so rapid that he considered the child well in six days. The vomiting and purging were gone, it was able to suckle and digest properly, and the only treatment used afterwards was a short tonic course to assist nature in repairing the

inroads made by the disease upon the child's general condition.

The success achieved in this case seemed so plainly dependent upon the procedure described that it furnishes me a welcome opportunity to recommend it to others more explicitly than in the previous article. I have seen it used by Monti in a variety of disorders of the large intestine, as well as for the expulsion of worms and flatus, and always with good results.

In inflammatory conditions of the colon in children he has used solutions of nitrate of silver, such as have been recently recommended in the treatment of dysentery in adults by Prof. H. C. Wood (see *Philadelphia Medical Times*, October 27, 1877), but decidedly prefers less powerful astringents when—which is very rarely—any are required. In such a case he is apt to select alum in a one or two per cent. solution, sometimes adding a few drops of laudanum. In general, however, he confines himself to the use of simple water, beginning with a temperature barely cool and descending with the successive irrigations till it is about that of spring-water.

He never uses a predetermined quantity, but allows enough to flow in to fill the whole colon "to the *valvula coli*." In children not yet weaned he finds more than two pints may be used; older children require up to twice this quantity. The quantities used in Prof. Wood's cases of adults were very small compared to these.

It should be stated, in regard to the mode of effecting irrigation, that Monti strenuously opposes the use of a syringe of any kind. The intermittent and uncertain action of these provokes resistance on the part of the intestine, and he thinks may do harm. The securing of an even and easily-regulated hydrostatic pressure is an essential feature of his method. *Still more essential is the distention of the rectum with fluid before attempting to pass the tube through the sigmoid flexure.* This precaution secures the smoothing out of the folds of mucous membrane and straightens the curves of the flexure, thus rendering the passage of the tube perfectly safe and easy.

Whatever variety of opinion there may be in regard to the possibility of sending an injection beyond the sigmoid flexure, there can be none in regard to the feasibility of "irrigation" by any who have tried or seen it.

Finally, I may say that no special position of the patient is necessary, though it is well, if convenient, to have the pelvis a little elevated. The steps of the procedure are sufficiently indicated in the case given above.—*Phil. Med. Times.*

Midwifery.

ON DYS-PAREUNIA.

BY T. GAILLARD THOMAS, M.D.,

Professor of Obstetrics and the Diseases of Women and Children in the College of Physicians and Surgeons, New York.

(Reported by P. Bryenberg Porter, M.D.)

GENTLEMEN: The case which I bring before you to-day is one of considerable interest in several respects; but there is one special feature about it upon which I should like to dwell at some length a little further on. The patient's name is Mrs. Rose G., aged thirty-eight years. She is a native of Ireland, has been married fourteen years, and has had five children and one miscarriage. Her youngest child is two years old, and the miscarriage, which was at the third month, occurred two months ago. Though never very robust, she tells us that the trouble of which she now complains has been experienced only since July last (four months). She suffers continually from a fixed pain seated in the right iliac fossa, and not infrequently extending down the lower extremity of that side as far as the toes, and chiefly affecting the great toe. It always runs down the anterior and inner aspect of the limb, and never the posterior part as well. At the time of the menstrual periods this pain becomes very greatly increased, and extends around to the back, which is never the case at any other time. At the last two menstrual epochs it has been so severe as to confine her to bed, and cause her the most intense suffering. It becomes severe, she says, about two days before the catamenia make their appearance; but when the flow begins it again diminishes. From the history to which you have just listened, my suspicions were at once excited in regard to one organ, and that was the right ovary. But why not the uterus or left ovary? Because of the seat and peculiar character of the pain, which, you will remember, is fixed at all times in the right iliac fossa, is excessively aggravated and extends around to the back, at the menstrual epochs (and at this time only), by reflex action runs down the inner side of the leg to the great toe, becomes increased two days before the appearance of the menstrual flow, and, lastly, is relieved when the flow begins. These are the

peculiarities of ovarian pain, and whenever they are noticed you should always suspect one, or perhaps both, of these organs. Putting a few direct questions to the patient, we find that she suffers constantly from leucorrhœa, but has no irritability of the bladder or rectum; and that the pain of which she complains has been much worse during the last two months (or, in other words, since her miscarriage) than it was before.

In the physical examination, with the patient lying on her back, the first thing that I noticed when I passed my finger into the vagina was, that the os uteri was not in its normal position, but considerably higher up than it ought to have been; and I also found that the cervix was lacerated to a certain extent. Carrying the finger back of the cervix, I felt a soft mass apparently connected with it, which I suspected to be the body of the uterus; and, on conjoined manipulation, which was made without any difficulty, after a few forced expirations, on account of the laxness of the abdominal walls, I ascertained with certainty that the uterus was enlarged, retroverted, and tender on pressure. But this was not all that I discovered; for, upon pressing over the right broad ligament with the hand that was upon the abdomen, I detected a pulpy mass of the size of an English walnut lying back of the uterus in Douglas's cul-de-sac, and so exquisitely sensitive that the patient cried out with pain the moment that I touched it. Now I was fully prepared to find such a body in this position, and would have been much disappointed if I had not, because the history pointed so evidently to chronic ovaritis of the right side. It might, perhaps, be supposed that the body which I felt was either a fibroid or a small phlegmon; but fibroids are not sensitive, and cannot be pushed away from the uterus, as I found it possible to do with this mass, and though phlegmons are tender on pressure, its mobility also showed that it could not be one of these. Furthermore, the great nervousness of the patient was an additional reason for supposing it to be an ovary.

The patient was now placed upon the side, and a Sim's speculum introduced, when the ovary was pushed completely up out of reach.

In order to confirm the diagnosis of retroversion, the uterine probe was passed to the fundus (which did not occasion the patient the slightest inconvenience), and it was found to take a downward and backward direction. Here, then, was a case of laceration of the cervix, hyperplasia, and retroversion of the uterus (the latter being probably caused by the former), and of chronic ovaritis. The patient is at a loss to account for the miscarriage from which she suffered two months ago, but it was no doubt due to one or more of the above abnormal conditions.

But there is one other symptom of the case of which I have not as yet spoken, but which is a very prominent one, and one to which I now desire to call your particular attention, and that is *dyspareunia*. I have already had occasion to allude to it in connection with the first case presented to you at the clinic this session; but to-day I propose to examine a little more fully into its causes and treatment. I accept the term, which means difficult or painful coitus, from Dr. Barnes. It is derived from the Greek word *δυσπαρευνοσ*, signifying *ill-mated*. The only way to treat this symptom is to find out all that you possibly can about the cause, and then remove that if it is practicable. Now how shall we approach it in the case before us? When the finger is passed into the vagina, three tender points are detected by it. The first met with is the cervix, at the part where it has been lacerated, for this accident has produced a neuralgic condition here. The second is the congested and displaced uterus, and this may, perhaps, have something to do with its causation; but neither of these conditions, as I would have you particularly note, is often concerned in the production of dyspareunia. Thirdly, we have an inflamed and exquisitely sensitive ovary, and that, you will find, is one of the commonest of its causes. The pain on pressure, too, is far more acute than at either of the other points just spoken of. You remember the aphorism of Hippocrates, *Propter uterum mulier est*. Prof. Peaslee in his work has rendered it more strictly correct by substituting the word *ovaria* for *uterum*. The ovary may be not inappropriately termed the pendulum of the female clock; and I have

not the slightest doubt that this woman could be easily thrown into an hysterical condition by a little continued pressure on the diseased organ.

These cases of dyspareunia are often exceedingly troublesome, and they will tax your ingenuity to the utmost when you get into practice. It is a most prolific cause of domestic infelicity, for the husband is made unhappy, and the wife is not only rendered mentally miserable, but suffers from the most profound derangement of her nervous system. The causes of dyspareunia are numerous, but I will endeavour to enumerate all that you will be at all likely to meet with. You will be pretty certain to find one or more of these conditions present in every case of the affection in which you are consulted, and if you will bear them in mind, you will be surprised to see how often you can remedy the trouble, and how much real happiness you will thus have the means of conferring. You all know how much a man is physically disordered when he is unhappy; a woman's disorder is always tenfold greater from the same cause. The first cause that I will mention is—

(1) *Hyperæsthesia of the Hymen and Ostium Vaginæ*.—If you will recall the case of vaginismus which I showed you about a month ago, and the extreme suffering which the mere attempt to introduce the finger within the vulva occasioned the patient, you can readily appreciate why this should be a very prominent cause of dyspareunia. But it sometimes happens that after this condition has been removed, the symptom still persists, because there has been some other cause present as well.

(2) *Diseased conditions of the Os and Cervix Uteri*.—Lacerations sometimes produce it, as we have seen, and it is also occasioned by hyperplasia of the cervix resulting from chronic inflammation of its lining membrane, which affects the nerves supplying the parenchyma.

(3) *Stricture of the Vagina*.—This is sometimes congenital and sometimes the result of the exanthemata or of continued fevers, like typhoid and typhus, occurring during childhood. I have seen one case in which it followed measles. Sloughing of the vagina was a concomitant or sequel of the disease, and a stricture

was its result. Such strictures often escape notice entirely until after marriage, for they do not amount to complete atresia of the vagina; but while they permit a free passage of the menstrual blood they present an effectual barrier to sexual intercourse.

(4) *Pelvic Cellulitis and Peritonitis*.—These are two of the most irremediable causes that you will meet with. As a result of the inflammatory process, the whole pelvic roof becomes, as Dougherty expresses it, as hard as a deal board, and often extremely sensitive to the slightest pressure upon it.

(5) *Uterine Displacements*.—The dislocated organ is in a neuralgic condition, because there is marked derangement of its innervation and circulation. Unlike the last, this condition is one of the most curable of the causes of dyspareunia.

(6) *Coccydynia*.—The attention of the profession was first prominently directed to this affection by Sir James Y. Simpson, but it was really observed before this by the late Dr. Nott of this city. There are two forms of it, one purely neuralgic in character, and the other an actual disease of the bone (caries), and the latter is much the more severe. There is sometimes a most violent pain during defecation from it, and sometimes a continued neuralgic condition of the coccygeal nerves.

(7) *Fissure of the Anus*, and

(8) *Irritable Urethral Caruncle*.—The latter is a little proliferation of the structures of the mucous membrane at the meatus urinarius, usually about the size of a small strawberry, and having loops of nerves running down into it, which render it excessively painful during micturition and coition.

(9) *Chronic Cystitis*.—This is quite a common affection among females, though it is, perhaps, a somewhat rare cause of dyspareunia. But sometimes the inflamed viscus is acutely sensitive, and the irritability which characterizes it is communicated to the adjacent parts.

(10) *Short Vagina*.—This is another cause which is congenital, and which remains unaltered through life. The uterus remains in a constant state of irritation from coitus (which occasions the patient very great suffering), and continually pours forth a glairy discharge of

mucus. The greatest unhappiness to both man and wife frequently results, and to illustrate this I will relate a case which came under my notice some time ago. The husband was a vigorous man of powerful physique, and, though very wealthy, of not much refinement. His wife, unfortunately, suffered from the trouble which we are now discussing, and in consequence he became exceedingly morose, and at length left her altogether. He then got into bad habits, and about a year ago committed suicide; this melancholy result being attributable, as I believe, to the condition spoken of. Of course, I may be mistaken in my explanation of the case, but from the circumstances I can hardly doubt that it is the true one. Before leaving it, I may say that, owing to the constant discharge from the cervix, the patient was never pregnant.

(11) *Disproportion*.—As we read in the Scriptures that “there were giants in those days,” so there are now. To no class of cases can the original signification of the word dyspareunia, “ill-mated,” be more appropriately applied. This is one of the causes which, as you may readily imagine, is the most irremediable, and this unfortunate abnormal development on the part of the male often occasions the greatest amount of distress. Lastly, we come to the cause which is no doubt the true one in the case before us, and which I have left to the last not because it is an unimportant one, but simply for the reason that it exists in our patient, viz. :—

(12) *Chronic Ovaritis*.

There are two other conditions which occasionally produce dyspareunia, but I would not rank them with those already given, because when present they are accompanied by other symptoms which are much more prominent than this. They are—

(13) *Malignant Disease of the Cervix*.—
And—

(14) *Fibroids situated near the Cervix*.—
These are ordinarily not at all sensitive; but if they take on an inflammatory process, as is occasionally the case, they become so.

I now propose to speak of the removal of some of these causes. The first step towards this in any given case is, of course, to ascertain

what is the true cause of the dyspareunia. Have we done so in the present instance? I think so, but am not positively sure in regard to it. I think it probable that if the inflamed ovary could be kept up in its proper position in the pelvis, where it would be out of reach of the irritation produced by coitus, and its present diseased condition be somewhat ameliorated, the dyspareunia would entirely disappear. But, as we have seen, there are other conditions present here which may possibly give rise to the symptom. How shall we then decide? Well, we may regard the matter as pretty certainly determined by the fact that the ovary presents the point of maximum tenderness, the sensitiveness of the other two points before mentioned being insignificant compared with it. If the first cause upon the list, viz., hyperæsthesia of the hymen and ostium vaginae, were present, the mere attempt to separate the labia would occasion the patient an extreme amount of suffering, and produce a high state of nervous excitement. I have so recently spoken of the treatment in this condition that it will be unnecessary for me to go into the subject now. If there is some diseased condition of the cervix, like the laceration in the present case, a careful digital and specular examination will reveal all that is requisite to enable us to relieve it. If there is a stricture of the vagina, or an abnormally short vagina, the mere passage of the finger will be sufficient to detect the condition, though unless the greatest care is observed, we may be deceived as to the fact of a vagina being really too short. If dyspareunia is the result of pelvic cellulitis and peritonitis, we would find great tenderness existing all over the hypogastrium, when conjoined manipulation is attempted, and about the roof of the pelvis. We may also find hard masses of exudation or collections of pus, which have resulted from the inflammatory affection.

Some of the other conditions mentioned must be looked for very carefully, or we shall fail to discover them. It is astonishing how frequently patients, in describing their symptoms, will entirely omit to mention the most important of all. A woman, for instance, will come to you with a vague account of some dyspeptic derangement, and never say a word

about the pint of blood which she may have vomited a day or two previously. I once knew of a sailor on a man-of-war who, while under treatment for fracture of the thigh by the young assistant surgeon of the ship, was visited by the fleet-surgeon in his rounds, and described to him a long train of symptoms, but neglected altogether to mention the broken leg. Intense agony during defecation is the most prominent symptom of fissure of the anus, and yet those who suffer from it will sometimes not mention it, because females, as a rule, dislike very much to speak of this condition. You know how much suffering a little crack at the corner of the mouth will occasion in cold weather, giving rise to some neuralgic pain which extends as far up as the eye. The pain from fissure of the anus is of the same character, but infinitely more intense, and during the act of coition affects the nerves of all the surrounding tissues. Pain is thus transmitted all over the vagina, and the same is true in regard to coccyodynia. We must be very careful not to overlook a sensitive urethral caruncle. It is apt to give rise to great irritability of the bladder; but irritability of this viscus is so frequent an occurrence in females that they seem sometimes to regard it as really a natural condition, and will not remember to mention it. So chronic cystitis not infrequently entirely escapes notice, and though it is often a very intractable affection, it is frequently amenable to treatment by means of free dilatation of the urethra, which enables us to keep the bladder thoroughly washed out by the use of appropriate injections. As I have previously indicated, nothing can be done where there is a congenitally short vagina, or when disproportion is found to exist.

But chronic ovaritis especially concerns us to-day, and I am confident that we can do a great deal of good in the way of treatment in this particular instance. We shall utterly fail in all our attempts to give relief here, however, unless we can raise the ovary out of its present position and keep it so elevated. It was demonstrated that it could easily be forced up out of Douglas's cul-de-sac, when the speculum was introduced, and I would now recommend that it should be retained in its natural situation by some appropriate form

of pessary. The shape and size of the vagina vary so greatly in different individuals, that in any case whatever in which a pessary is to be worn, it is absolutely essential that only one especially adapted to it in every way should be inserted. There is too much indiscriminate use of pessaries at the present day, and this I believe to be one great reason why they so often do harm, and why they have gotten into such bad repute in certain quarters. In the present instance I might, perhaps, at first make use of the simple elastic rubber ring, known as Meigs's pessary; and finding that this did not accomplish the result designed, I might employ Hodge's or Albert Smith's modification of that; or, more probably, I might resort to a modification of Cutter's very excellent pessary, which is retained in position by an elastic band attached to an abdominal belt, and whose essential feature is a hard-rubber bulb, which fills up all the post-uterine space, and would thus effectually keep the ovary up out of Douglas's cul-de-sac.

Further than this, the patient should be instructed to remain very quiet at the time when physiological congestion of the ovary occurs. For several days before each menstrual period she should lie in bed, while the bowels should be kept relaxed and every possible source of irritation removed. When the flow makes its appearance she should be allowed to get up again, for she is to be treated not for disordered menstruation but disordered ovulation. There is one remedy which seems often to have a favourable influence in these cases by allaying nervous excitability, and that is bromide of ammonium. I am in the habit of giving it in from ten to fifteen grain doses, combined with some bitter tonic, three times a day for four or five days at the menstrual epoch; always taking care to antedate somewhat the period of ovulation.

Lastly, galvanism should be given an extended trial here; the constant current ought always to be used in such cases. I would recommend that about twice a week one sponge electrode, mounted on a long handle, should be applied directly to the ovary, or as near to it as you can get in the vagina; and that the other, a broad, flat one, should be applied successively for a few minutes to the abdomen, and the spine, near the dorsal vertebræ. I have been told by specialists in electro-therapeutics, that this is a very uncertain method of reaching the ovary with the galvanic current; but as they have been unable to suggest any better way, I still continue to employ it.—*Med. News Library.*

Materia Medica.

STRYCHNINE AS AN EXPECTORANT IN BRONCHITIS.

In this season of *bronchitis*, it may be practically useful for your readers to know the great utility of strychnine as a true expectorant by its action upon the respiratory centre. Like ammonia, it does not act upon the mucous lining of the air-tubes, but upon the nervous centres of respiration. The experiments of Prokop, Rokitsky, and others, with this agent, show that it has a decided action in stimulating the respiration by acting upon the respiratory centre in the medulla oblongata. Ammonia acts in the same manner. Ammonia is commonly added to cough mixtures for its stimulant expectorant effect. It enables the patient to respire more perfectly and so to expectorate the phlegm more effectually. This is of the utmost importance in bronchitis when the stage of free secretion is reached and the air-tubes are full of mucus and the patient is in danger of choking. Here the battle lies betwixt the powers of the patient and impending exhaustion. The ordinary mixture of carbonate of ammonium, spirits of chloroform, and senega is very useful; and some tincture of squill will be found a useful addition. But increasing clinical experience of strychnine leads the writer to the conclusion that of all agents which exercise a stimulant effect upon the nervous mechanism of the respiration, strychnia is one of the most potent and useful. Strychnia acts powerfully upon the expiratory part of the respiratory act, and kills, by producing spasm of the muscles connected with expiration. It is very useful, then, when expiratory efforts are required for the expulsion of mucus gathered in the air-tubes. In chronic bronchitis, with emphysema, it is of great service, and in the dyspnoea connected with advanced Bright's disease it is very efficacious. It produces good effects when given alone, and is a useful addition to ordinary cough mixtures. A combination of carbonate of ammonium, tincture of nux vomica, and tincture of squill, is a most excellent mixture for patients suffering

from dyspnoea, and generally procures them "more breath," as they phrase it. One of the most important matters connected with such use of strychnia is its relation to sleep. In many of these cases sleeplessness is a prominent factor; and sleep can be procured only by a narcotic. But while the narcotic acts upon the nervous system generally, it also acts upon the respiration, probably at its centre in the medulla; and the patients are apt to wake up with an attack of dyspnoea. A series of cases has demonstrated that by the use of strychnia the respiration is so improved that the patient can go to sleep without the narcotic, and, more than that, sleep fairly well, and be quite free from attacks of breathlessness, which awaken the patient and cause him to add voluntary respiratory efforts to the automatic act of respiration. By resort to strychnine these patients can be much relieved.—*J. Milner Fothergill, to Phil. Med. Times.*

POISONING BY CARBOLIC ACID TREATED BY APOMORPHIA.

G. W. Semple states that a patient took by mistake two teaspoonfuls of strong carbolic acid. In a few minutes she was in a state of great debility, and complained of a violent burning sensation from the fauces to the stomach. The pulse was full, slow, regular and strong. Solution of bicarbonate of soda was ordered and taken. She quickly, however, fell into a semi-comatose state, and was with difficulty made to swallow six ounces of olive oil. Forty minutes after taking the poison, rather more than half a grain of apomorphia in twelve minims of water was injected subcutaneously. In three minutes there was copious emesis, which continued at intervals of twenty minutes for an hour and a half. A very large faecal evacuation followed, with an abundant flow of a smoky-coloured urine, having a strong odour of carbolic acid. Recovery, without ill effects, took place. Dr. Semple lays great stress on the rapidity with which the apomorphia acted as an emetic, and strongly recommends all who practise to keep it in solution, as it requires some time to make up.—*Practitioner.*

Hospital Reports.

HOPITAL NECKER.

ON PULMONARY TUBERCULIZATION. THE DIFFICULTY OF DIAGNOSIS.

BY M. POTAIN.

We have at present in the wards three patients of whom I wish to say a few words to you, because they all three have a bearing upon an extremely important question, one upon which physicians are far from being decided. I desire to speak of the diagnosis of pulmonary tuberculosis and of the prognosis of that affection.

The first of these patients is a young woman of twenty-six years, recently confined, in whom the disease is manifested by very clear and precise characters. We find on the right side of the chest, behind, a remarkably evident diminution of sonority, especially in the supra-spinous fossa, whence it is propagated, getting gradually less distinct throughout the whole of that side of the chest. At this part also the respiration is enfeebled and expiration prolonged. Beyond doubt these signs are of great importance. Note well, however, that in themselves they signify absolutely nothing, and that their sole value here is due to the fact that they predominate at the upper part of the chest. She commenced to cough during her pregnancy, but never spat up blood.

In bed No. 21, St. Adelaide ward, is lying another woman in whom the disease has existed for a much longer time. In her case the rational signs are completely wanting; auscultation of the chest reveals no trace of *râles* and no notable diminution of the vesicular murmur; the sonority is also normal throughout the whole extent of both lungs. There is, however, an extremely slight shading at the right apex, but it is so slight that the establishment of a diagnosis could not be based upon this fact. But this woman is much debilitated and very anæmic; she is extremely pale, with a peculiar earthy tint in the countenance; her eyes are sunken and encircled, the nose a little pinched, the brow slightly wrinkled in its upper part; in a word, her expression resembles that which is observed in certain diseases, amongst

which are uterine affections, and which has been designated by the term *facies hippocratica*. This appearance of the face would naturally lead us to examine the condition of the womb. Up to the present this examination has not been made; there can be no doubt, however, that there exists some lesion of this organ, for since she has been sick this woman has begun to suffer from leucorrhœa; she complains of pains in the kidneys, and in the belly, so that we are justified in admitting the existence of a uterine affection, as to the nature of which we shall be enlightened later on. Lastly, it must be added that this patient is notably dyspeptic; she digests badly and suffers from constipation, acid eructations, &c. Although we are still without one important element of the diagnosis, a direct examination of the uterus, we can nevertheless now ask ourselves, admitting, that which we shall determine later on, either a tumefaction of the neck, or a uterine catarrh, or some other notable alteration in the womb, we can now ask ourselves, I say, if this affection is by itself sufficient to account for the condition of this woman, or if we should search further and reflect that the complex symptoms which we have before our eyes,—symptoms on the part of the intestine, the uterus, and the pulmonary apparatus, may be under the domination of a phthisical condition superior in importance, and anterior in point of time, to them all. Several reasons justify us in believing that this last hypothesis is the correct one: in the first place, this woman comes of a tuberculous stock, for her mother died of consumption after a very long illness. Moreover, while a child, she was subject to catch colds, and before falling sick she was already anæmic and debilitated. From these recollections it results then that, although we have not a positive sign of pulmonary tuberculization, and although we actually have a uterine affection, we must not on these accounts indulge in a too favourable prognosis and confine ourselves to treating the disease located in the uterus. We must, on the contrary, rather regard the uterine affection, and the troubles which accompany it on the part of the intestine, as occurring under the influence of the tubercular diathesis, and the patient as belonging to the category of those in whom the

tubercular diathesis instead of manifesting itself at first by thoracic symptoms, displays its manifestations in the stomach or the uterus.

Lastly, the third patient whom I desire to bring to your notice is that young girl who lies in bed No. 15 of the same ward, and who presents for our examination phenomena not less embarrassing, although more pronounced, than those in the preceding patient. This young girl entered the hospital on the 17th October with a very intense febrile attack. Auscultation discovered throughout the whole of the right lung, behind numerous subcrepitan râles mingled with some sibilant râles. On percussion, the sonority of this side was a little less than that of the opposite side, but uniformly diminished throughout the whole height of the lung. Add to this that the appetite was completely lost, and that, as I have already said, there existed an extremely intense febrile movement dating back for some ten days. In presence of a considerable febrile state, and of signs of an unilateralised bronchitis, what diagnosis should we make? In itself the bronchitis presented nothing peculiar, but what possessed a great interest was the localisation of the inflammation in one side of the chest. In fact, bronchitis as a general rule invades both lungs at once. It, however, sometimes happens when the disease is slight, that the râles are found only on one side. This is equivalent to saying that only on this side have the tumefaction and hyperæmia of the mucous membrane proceeded far enough to give rise to stethoscopic bruits; but when the lesion is more pronounced the evidences of the bronchitis are almost constantly double. And, moreover, when the râles are only heard on one side of the chest the facility with which they pass, even in a day, from one lung to the other suffices to establish the diagnosis. Thus, when these signs are limited to a single side, and when they remain limited to this side, we should always think that special reasons localise the bronchitis in this region. These reasons are numerous: such are, among others, the lesions which, like foreign bodies for example, bear upon the bronchi themselves, and by their prolonged presence determine an irritation which extends little by little along the bronchial tree; such are also tumours of

the mediastinum, which, like aneurisms of the aorta, compress the bronchi and end by producing inflammation. But these are exceptional facts, and when the lesions are limited to one side the first cause which should enter our minds is pulmonary tuberculization. In fact, amongst the causes which may give rise to a unilateralised bronchitis, it is necessary to place in the first rank pulmonary tuberculization; and it is to this and to the bronchitis that the only objective signs, by means of which we recognise tubercle at the outset, are due. As for these latter (tubercles) themselves, they are not capable of producing any of them (the signs). These phenomena consist especially, as you know, in diminution of the vesicular murmur, diminution of sonority, and, lastly, in certain modifications of the respiratory rhythm, such as prolonged expiration, &c., all phenomena which are due not to the presence of tubercles but to the pulmonary congestion which accompanies this pathological product. This is so true that we may have tubercular granulations in a lung without finding any sign on auscultation if pulmonary hyperæmia do not accompany the tubercles. In the same way, on the other hand, we may have the signs of pulmonary tuberculization without crude tubercles or tubercular granulations. This is equivalent to saying that pulmonary hyperæmia, even when it is limited to the apex of a lung, may exist without granulations, and that it is fixed there by something which is capable of determining that congestion independently of the existence of granulations. This, moreover, is equivalent to saying that the granulations are not necessary for the production of these signs; that consequently these latter only reveal the existence of a pulmonary hyperæmia, and indirectly the commencement of tuberculization, because pulmonary hyperæmia, localised for a certain time, is allied to the occurrence, already or in the near future, of pulmonary tubercles. The same is true of the *subcrepitan râles* and of cracklings when they are larger. They are, in short, signs of bronchitis, and it is not necessary for their existence that there should be tubercles either softened or in process of softening. «But when they are numerous, when they acquire a certain volume, the supposition is that tubercles have

already invaded the apex of the lung, and that they have probably reached that stage in which a part is in process of softening. But what they point to especially is a bronchitis limited to the apex of the lung, where it is determined by some cause or other, amongst which tuberculation is one of the most frequent and most constant. There were therefore in this young girl reasons for thinking of pulmonary tuberculation. Besides, at the end of some days the stethoscopic signs became predominant at the upper part, the respiration became rude at the apex, and in this region a rather marked loss of clearness of the percussion note was noted: the diagnosis was confirmed. As these signs became manifest in a very short space of time, as, moreover, there existed an extremely intense febrile movement, we should ask ourselves if we had not to do with one of those cases of the rapid form of phthisis which has been described under the name of galloping consumption. From the first day it appeared to me that such was not the case. In fact, the signs which we found were the signs of simple generalised bronchitis with predominance at the apex, in a young girl previously scrofulous, descended from a tubercular mother it is true, but in whom nothing justified the supposition that she was affected with a malady to which she must of necessity succumb. This was, moreover, one of those cases in which the prognosis is extremely embarrassing. It is not rare, in fact, to see, in certain subjects, the disease develop with frightful rapidity, then, when the physician has pronounced a fatal prognosis, the stethoscopic signs disappear, even leaving behind them the lung in a state of perfect integrity. You understand how the reputation of the physician is compromised when, in presence of such cases, he has announced that the malady will be inevitably mortal. But this is not equivalent to saying that the suspicions of the practitioner were ill-founded, and that the patient was not tubercular nor in the way of becoming so. Tuberculation, in fact, has not necessarily a progressive course, as is ordinarily supposed; it is even susceptible of cure. M. Gueneau de Mussy, whose authority in such a matter no one will venture to deny, has reported several such cases which had

the features of chronic tuberculation it is true; but things may also take the same course in tuberculation of the acute form. I have myself had positive examples of it. It is then certain that patients having the commencement of granular tuberculation may see their disease become arrested, sometimes permanently, at others only for a longer or shorter period.

To return to our patient, her condition has become ameliorated in rather a rapid manner. To-day the fever has disappeared, she coughs but little, and yet the *râles* persist in front, a circumstance which leads us to ask ourselves if she have softened tubercle, or still only bronchitis with generalised pulmonary congestion. This latter hypothesis is the only one which can be affirmed in a positive way, but are there tubercles behind this? I should find much difficulty in answering, no, for, as I have said before, we should always answer with much reserve, and I, therefore, prefer to consider this woman as being the subject of a tuberculation which may subsequently develop under the influence of any sufficient cause, pregnancy for example, as I have seen it do before.

Pulmonary tuberculation is then, you see, extremely difficult of diagnosis. Hence the necessity for the physician not to rely simply upon the objective signs which he finds upon exploration of the lung, but to analyse them and combine them with the indications furnished by the general state of the patient, his antecedents and hereditary predispositions, before forming his conclusions, for it is only by grouping together all the elements of a case that we can arrive at a diagnosis which shall be approximately true.—*Gazette des Hôpitaux.*

TORONTO GENERAL HOSPITAL.

CASE UNDER J. E. GRAHAM, M.D.

J. P., æt. 47, tailor. Admitted T. G. Hospital, October, 1877. Patient's chest deformed owing to lateral curvature of the spine. Came on in childhood. He has suffered for some years from asthma and chronic bronchitis. In the winter of 1875-76, he noticed that a faintness sometimes came over him when at work. His companion remarked that his face was swollen. He had then some cedema of the limbs, which has since continued.

During the summer of 1876, patient improved, but was again seized with the bronchitis in the following winter. Present condition. Patient has a dusky countenance owing to venous blood. He is very weak. Limbs very much swollen. Breathing difficult. On examination of chest, bronchitis and emphysema were discovered. The cardiac dulness was increased in extent, especially on the right side. There were no abnormal beat sounds.

Nov. 18th, 1877. Patient died to-day. He has been gradually getting worse since his admission. Latterly his countenance has been quite livid, and the swelling of the limbs enormous. *Post-mortem* examination. Heart very large. Right side very much dilated. Walls thin. Left ventricle of normal size. Walls somewhat thicker than normal. Valves were healthy. Parts of both lung emphysematous.

In this case the dilatation of the right side of the heart appeared to be entirely due to the condition of the lungs. It moreover exhibits one of the modes in which death may be brought about by chronic bronchitis and emphysema.

REPEATED INFECTION BY ACUTE EXANTHEMATA.—Dr. v. Huttenbrenner (*Jahrbuch f. Kinderheilkunde*, X, 3 and 4) has come to the following conclusions regarding a second infection with acute exanthemata, especially scarlatina. I. Scarlatina can appear in the same individual a second time even after a comparatively short time, in his cases after two months. II. In order to make the diagnosis of a second eruption, not any one symptom, by itself, should be considered as sufficient—all the symptoms ought to present and characteristic desquamation must never be wanting. III. The fact that even after so short a time, recovery from scarlet fever does not protect against second invasion makes it a necessity to isolate the patient, as we are by no means sure that the second attack runs its course as mildly as the first; on the contrary, the second attack is frequently much more severe than the first. IV. There seems to be a certain amount of predisposition in certain families for second invasions of scarlatina.—*Clinic*.

Translations.

WARM BATHS IN CHRONIC RHEUMATISM.

The fact that all the mineral waters of any efficacy in chronic rheumatism are of a high temperature, led M. Lasègue to enquire if the temperature were not the chief element in the treatment rather than the chemical composition of the water. Experiment has demonstrated his hypothesis to be correct, for, he affirms that in a large number of cases he has very frequently observed the patients to present a great amelioration after baths of high temperature. The baths should not, at first, be given at the temperature desired to be reached; they should be gradually heated up to 40° (104° Fahr.) or even 45° (113° Fahr.) if the patient can bear it. M. Lasègue has seen patients, who were absolutely bed-ridden, able, after a prolonged treatment by simple baths of from 40° to 50° (104°-113°) extending over some months, to resume their occupations in part, and to make use of, anew, joints which had previously been condemned to immobility! This treatment may be employed almost indefinitely, but it is always necessary to be cautious not to administer the baths during the acute or subacute crises of chronic rheumatism.

For internal medication, when there is any contra-indication for the baths, as frequently happens, M. Lasègue has preferentially recourse to the tincture of iodine in large doses; he has even reached fifty or sixty drops per day. In which event in order to avoid iodism it is necessary to give the remedy at meal-times.

In cases of loss of appetite or of dyspepsia in rheumatic, as in gouty patients, the remedy which is most successful in restoring the digestive functions, is lemon juice given in great abundance. It is much more efficacious than the bitters or the remedies called aperients. But in order that it may be well borne, an indispensable precaution is to give it absolutely pure; mixed with water or with sugar it is much less tolerated by the stomach.—(*Journ. de Méd. et de Chir. Prat.*)—*Gaz. des Hôp.*

THERAPEUTIC USES OF IODOFORM.

In a communication to the *British Medical Journal* of 26th January on this subject, Mr.

Berkeley Hill bears testimony to the value both of the local application and the internal administration of this remedy in certain syphilitic cases. He says that for three years his almost invariable treatment for venereal sores has been to brush the iodoform as a dry powder lightly over them with a moistened camel-hair pencil. An ethereal solution (1 part of iodoform in 6 or 8 of ether) may be substituted for the dry powder, as the ether rapidly evaporates leaving a pellicle of iodoform upon the sore. The sore is previously well washed with water, and, after the application is covered with a piece of dry lint. When the secretion is abundant the dressing must be renewed twice daily, one dressing, however, usually suffices. Inflamed sores, or simple granulating wounds are to be avoided; but indolent, non-specific ulcers are rapidly improved. He regards iodoform given internally as more efficacious than potassic or other iodides, and equally well borne. He gives it in one and one-half grain doses as a pill with extract of gentian. Three pills are given each day, increasing gradually till 8 or 10 pills are taken in the 24 hours. When this number has been reached, symptoms of iodism may appear. He has found it especially beneficial in obstinate syphilitic ulcerations of the tongue, and in the intensely agonising pain in the head caused by syphilitic pericranial and cranial disease in which the remedy has acted like a charm.

From *L'Union Médicale*.

We extract from a review in this Journal of Th. Gallard's "*Clinique Médicale de la Pitié*" the account of his mode of treatment of Abscess and Cysts of the Liver:—"Puncture is made with an ordinary trocar of rather large size; in general, the liquid is evacuated completely and without the least difficulty, but it may be facilitated, if necessary, by practising aspiration. The evacuation having been accomplished, the cannula of the trocar is left *in situ* for several days; this is sufficient for the establishment of adhesions between the walls of the cyst or abscess and the abdominal wall, so that, later, injections or irrigations may be made in the diseased cavity without the least danger of penetrating into the peritoneum."

M. Gallard has reported remarkable examples of rapid and lasting cures which he has effected by employing this method of treatment.

From *L'Union Médicale*.

ANTI-PSORIATIC ADHESIVE LOTION.

BY W. COTTLE.

Caoutchouc, 15 grammes; chloroform, 225 grammes. Dissolve. In cases of chronic psoriasis, accompanied by an excessive formation of dry scales, and sometimes thick crusts, the crusts and scales are as far as possible removed, and all traces of greasy matter got rid of, by wiping the skin with a rag dipped in ether or rectified spirits. This having been done, the skin is carefully dried; then by means of a brush a thick coating of the solution of caoutchouc is painted over the affected parts. This application is renewed as often as is necessary in order to form and preserve a continuous, uniform, and thoroughly adherent covering of caoutchouc. The author thinks that this treatment is also applicable to certain cases of chronic eczema, but he has not yet collected a sufficient number of observations to enable him to judge. The local treatment by the caoutchouc covering, however extended, does not in any case do away with the necessity for appropriate internal medication.

From *Le Progrès Médical*.

In the No. of *Le Progrès* for 22nd December M. P. Regnier records a case of "death from ulceration of the vertebral artery in a case of Pott's Disease in the suboccipital region." About three months before the death of the patient a post-pharyngeal abscess had been opened. About five o'clock one morning 25 oz. of blood escaped from the patient's mouth, but the hæmorrhage stopped spontaneously. Later in the day another hæmorrhage occurred and carried the patient off.

ANTI-HERPETIC MERCURIAL LOTION.

Bichloride of Mercury gr. 1½
 Muriate of Ammonia ʒss.
 Alcohol ʒiv.
 Distilled Bitter Almond water.... ʒiv.

Dissolve the salts in the alcohol and distilled water and add Emulsion of Bitter Almonds to ʒxvi. Use as a lotion in Pityriasis, acné, chronic eczema and pruritus.—*L'Union Médicale*.

From *La France Médicale*.

OVARIAN CYST OPENING INTO THE INTESTINE.

In the *Revue Mensuelle de Médecine et de Chirurgie* for November, 1877, M. F. Terrier records the case of "a woman thirty-one years of age who entered the wards of M. Lépine at the *Hôpital Beaujon* on the 17th January, 1876, and who had suffered from a unilocular cyst of the ovary for two years. On the 30th of January it opened into the intestine; and about the middle of the month of June the patient left the Hospital in a perfect state of health." These cases are comparatively rare.

From *L'Union Médicale*.

TREATMENT OF THE PURULENT OPHTHALMIA OF THE NEW-BORN BY A SOLUTION OF IODINE IN DISTILLED CHERRY LAUREL WATER.

BY M. LUTON.

This solution consists of 1 gramme of Tincture of Iodine in 20 grammes of cherry-laurel water. The liquid is instilled, by means of a dropper, between the pupils in indefinite quantity from 4 to 6 times a day. This treatment is even better than the Nitrate of Silver, and it does not expose the case to any accident, such as necrosis of the cornea.—(*Un. Méd. et Sc. du N.E.*)

THE PREVENTION OF HYDROPHOBIA.

Mr. Jonathan Hutchinson writes to the *British Medical Journal* suggesting the removal of the canine teeth of dogs as a preventive measure. He says: "The small number of dogs in which these teeth are required for special purposes might be exempted. It is the formidable canine tooth which in nine bites out of ten does the damage; without it few dogs would be able to bite through clothing, for instance, and in their attacks upon each other, they would probably, usully fail to break the skin."

CRYPTOGAMS IN TYPHOID FEVER.

Mr. Feltz has submitted to the Paris Academy of Sciences a note affirming the presence of Cryptogamic germs in the blood of

patients suffering from typhoid fever. These germs appear to be capable of vegetating in flasks containing pure air alone.

From *L'Union Médicale*.

ANTISCROFULOUS POMADE.—POURCHE.

Bromide of potassium 3i; axungia ʒvijs. Dissolve the bromide in a little water and incorporate it with the lard. Two or three frictions a day to be made in the very numerous manifestations of scrofula, such as scrofulous ophthalmia, and glandular engorgements. It is also efficacious in goitre.

SOLIDIFICATION OF HYDROGEN.

At the *Académie des Sciences* on the 14th January. M. Dumas announced that M. Raoul Pictet had effected the solidification of hydrogen at Geneva on the 10th of January. This remarkable success was obtained under a pressure of 650 atmospheres and at a temperature of -370° .

CARMINATIVE POTION.

DESBOIS DE ROCHEFORT.

R. Aquæ Menth. Pip. ʒiv. ʒvss. ʒv. ʒv.
Essential Oil of Anise gtt. x. xij.
Hoffmann's Anodyne ʒss. ʒj.

Fiat Haustus. (Rubbing up the essence of anise with a small quantity of sugar.) To be taken in tablespoonfuls by persons affected with flatulent dyspepsia, to provoke expulsion of the gas and promote digestion.—(*Union Médicale.*)

RUSSIAN STUDENTS.—It will not be forgotten that a Russian imperial ukase recently recalled to St. Petersburg the Russian ladies who were studying at the *Polytechnicum* of Berlin, with threats of dire penalties against those who did not hasten to obey. We learn that eight of these ladies, belonging to the best families, have been condemned by Russian tribunals, six to exile in Siberia and several years of hard labour (in the mines) and two to prison. They were accused of taking part in secret societies.

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MARCH, 1878.

PUBLIC HEALTH BILL.

Doubtless all our readers are in possession of a copy of the list of the questions submitted by the Select Committee on Public Health to practitioners generally throughout the country. We shall however be much surprised to learn that they have been able to transmit to the Clerk of the Legislative Assembly for the information and guidance of the Committee any satisfactory replies to the queries referred to. This unfortunate condition of affairs does not lie at the doors of the medical practitioners, but rather is inherent in the character of the interrogatories themselves, to which no categorical answers, as seems to be expected, could be intelligibly returned. The absence of any evidence of skilled assistance or advice in the drafting of these questions is much to be lamented, since the very laudable intention which prompted their issue is likely to be thereby seriously hindered, if not utterly frustrated. We have, nevertheless, much reason for felicitation in the fact of their being submitted to the profession before any action was taken in the matter, since it is another evidence of the increasing public recognition of the services medical men are capable of rendering to the State, and avoids a repetition of that monstrous anomaly in legislation which enabled the Public Health Act of England, consisting of some 370 clauses, to pass through its various stages of development from its inception in 1848 to the consolidation of its various congeners and amendments a year or two ago, without consulting medical opinion in general or even that of the medical


officer to the Privy Council in particular. In the entire absence of any really operative sanitary enactments in this country we cannot but view with much satisfaction and entire approval any step, however imperfect, towards the removal of a great social scandal and national disgrace; and we therefore look with much favour upon this indication of an awakening of the legislative mind to the necessity of abandoning the old practice of *laissez faire* in sanitary matters. It is our purpose here to make a few remarks which may prove of service in this connexion, and we shall endeavour to indicate some of the chief points in regard to which sanitary legislation appears to be urgently demanded.

In the first place, then, a central sanitary authority connected with the Government appears to be indispensably necessary. We have already instituted Boards of Health in the various municipalities, or, at all events, the necessary legislative enactments for their erection. But the law is a dead letter as far as execution or administration is concerned. This results, in our opinion, in a great measure from the absence of a centralising body and a living head. The great desideratum therefore appears to us to be a Provincial Bureau of Public Health and a responsible Minister of the Crown who shall preside thereover. As an assistant and technical adviser to this Minister there should be a specially skilled medical officer, selected, not upon political grounds, but for conspicuous merit and special adaptation to the requirements of the office. He should also have the aid of a staff of assistants specially skilled in hygiene, vital statistics, pathology, toxicology, sanitary engineering, and sanitary physics. There should "also be a College of State and Legal Medicine furnished with all necessary appliances, such as laboratories for original research, a technical museum, and a library." A veterinary department should be added for the purpose of studying the diseases of animals and their influence upon and connexion with human ailments. It should be required of every Medical Officer of Health or candidate for the public medical service to have passed through this College, for it cannot be doubted that a special training and education is required to fit him for the duties of his office. This central body

should be endowed with the power to compel by process of law all Local Sanitary Boards to appoint Medical Officers of Health ; to require them to make periodical reports to the central authority of all matters connected with sanitation in their districts, and more especially vital statistics, the occurrence of epidemic diseases, and the existence of noxious trades, or industrial operations which may prove injurious not only to the operatives therein engaged but also to the residents of the surrounding neighbourhood. The Central Board might properly be looked to for assistance and advice in the removal or suppression of these injurious influences. To quote the words of Dr. Arthur Ransome, "The Central office would freely offer the assistance of its well-trained inspectors, and encourage all persons both in public and private, to take advantage of its stores of special knowledge and experience ; but it would leave all communities at liberty to select those methods and those appliances that might seem best suited to the locality, with whose wants they might be presumed to be most thoroughly acquainted." In the case however of neglect on the part of the local authority to take appropriate steps in connection with the removal of any insanitary conditions which might be brought to their notice, the central authority should be endowed with power to direct, and should take measures to compel the local authority to do whatever might seem necessary in the premises. The object of all sanitary administration being the removal of the preventible causes of death, it is absolutely necessary for this purpose that correct statistics of the causes of death should be obtained. This, however, cannot be done unless a uniform nosological catalogue of the causes of death be determined upon and rigidly adhered to. All diseases causing death should be certified by their proper scientific appellation, and all vague and unscientific names should be scrupulously avoided. Moreover, medical practitioners should insist upon their right to make *post-mortem* examinations in all cases of death of obscure origin, and should resolutely decline to certify the cause until it had thus been made apparent, or all means of its discovery exhausted. No inhumation of a body should under any circumstances be allowed in the absence of a certificate

of the registration of the cause of death. Until this be done the value of our vital statistics must remain worthless and deductions therefrom necessarily fallacious. As to those hitherto collected in this country Carlyle's remark is very justly applicable, for they are "like the sieve of the Danaides, beautifully reticulated, orderly to look upon, but which will hold no conclusion." The matters at present specially requiring legislative enactments for their suppression are over-population of certain town districts, insalubrious condition of dwellings and premises as well as thoroughfares, the increased use of intoxicating drinks and the imperfect care and instruction of children. Besides these matters we should have some thorough provision made for the inspection of food designed for human consumption, for expert supervision in the construction of public institutions, and also of private dwellings. "Certain prescribed requirements in regard to drainage, heating, lighting, and ventilation would soon come to be understood and met, even by ordinary architects and builders."

Lastly, the popularization of Sanitary Science must be attempted in our schools and press and pulpit. The people must be thoroughly imbued with the knowledge that there is a private as well as a public hygiene ; that "intemperance, immorality, injudicious marriages, excesses of every description, overwork, idleness, and depressing passions" are offences against the Laws of Health which are inevitably attended by penal consequences ; that "they impair the constitution of the individual, and the well-being of the offspring, and in proportion to their prevalence they lower the standard of public health." "Above all the people must be taught that good conduct, personal cleanliness, and the avoidance of all excesses are the first principles of health preservation," for upon this education of the masses rests the fundamental element of sanitary progress.

 To SUBSCRIBERS.—Our friends can readily ascertain when their subscriptions in advance became due by referring to the date attached to the address on the Journal. There are some still considerably behindhand who ought to "come down handsomely" and soon.

3107520

BILL TO AMEND THE ONTARIO MEDICAL ACT.

A new era of better things appears to be about to dawn upon the Profession in Ontario. Not only have they lately been consulted, as we have stated in another column, before the undertaking of fresh sanitary legislation, but we observe with satisfaction that a Bill has been drawn up under the direction of the Executive Committee of the Medical Council to be laid before the Legislative Assembly of Ontario, embodying several much needed amendments to the Ontario Medical Act.

Section one of this Bill, as will be seen by reference to another column, consists of the insertion in the Medical Act of a proviso that "no School of Medicine shall have more than one of its professors or teachers as a member of the Council." Now although to every uninterested individual it was perfectly apparent that this was the intention of the framers of the law, and the spirit of the Act, yet the insistence of Trinity Medical School, last year, upon its verbal rights under the Statute to have two of its lecturers at the Council Board (each representing a different body of course), and the opinion of legal counsel to the effect that the present wording of the Statute is defective in that respect would seem to show that it is necessary to have the matter placed beyond a doubt in order to avoid such Machiavelian claims and contentions for the future.

To Section three of this new Bill decided objection must be taken, since it manifests an inclination or desire to concede to the homœopathic and eclectic bodies privileges and facilities of access to registration which are denied to regular practitioners. Under the present Act, homœopathic and eclectic practitioners resident in actual practice in Ontario for the six years immediately preceding "the 24th day of March, 1874," are entitled to registration upon paying the usual fees; but in the new Bill it is proposed to substitute for the words, "the 24th day of March, 1874," the words, "his application for registration," thus opening the door to those who may have settled here subsequently to the passage of that Act, and who may still settle, upon the

expiration of six years of illicit practice; in other words, the amendment grants special favours to certain individuals and confers a premium upon a six years' persistence in illegal practice.

Section four very properly provides that the words "teaching bodies," in the twenty-ninth section of the Medical Act, shall be read as "Schools of Medicine in actual operation," since it was intended that the Board of Examiners should consist of a certain proportion of actual teachers, who, beyond all reasonable doubt, make the best examiners.

The remaining Sections (six, seven and eight) are devoted to the extension and confirmation of the rights of registered practitioners. They speak for themselves, and meet with our hearty endorsement and support. It is high time that the scandalous excess of service, both to the individual and the State, expected from us, the great unpaid, over and above that expected from other members of the community, should be removed, and we regard the remaining clauses of this Bill as a step in the right direction. Should it pass the House, the day will deserve a white mark in the annals of Medicine in Ontario as indicating a commencement of a just appreciation of the fact that the medical labourer, like any other, is worthy of his hire.

Since printing the Bill to amend the Ontario Medical Act, and referring to it in our editorial columns, it has been changed in some particulars by the executive committee of the Council. We have reprinted the Bill as amended: sections two and five have been inserted since our remarks were written. With regard to section five, we think it would be far better so to amend the Act as to prevent unqualified practitioners, assistants, or students, even if matriculated, from practising, than to legalize a loophole that has already been frequently taken advantage of by non-registered men.

SOMETHING NEW.—WARNER'S PARVULES.—
Read their Circular folded with this number.

THE ANNUAL EXAMINATIONS.

When the Medical Council decided sometime ago that candidates for its license should undergo annual examinations like students in arts, they only acted in accordance with the spirit of the age, and they gave ample notice to all intending students that after a certain time the rule would be rigidly enforced. It was well known that all who commenced the study of medicine after a certain date would be required to conform to the new curriculum. No one can plead ignorance of the law, and yet certain parties interested in destroying the prestige of the Council, if not its very existence, injudiciously advised the students last year to resist the bye-laws of the Council by declining to submit to its examination and to compel it to admit them this year under the old curriculum. We know the students were warned against such a course as one both inexpedient and suicidal to their best interests. Nevertheless, some did unfortunately listen to the siren voice and are now engaged in the unenviable task of forcing the Council to stultify itself in order to save them the year they have forfeited.

It may be a hardship to compel these young men to observe the law they are trying to break, but they took the risk with full knowledge of the consequences and have none to blame save themselves and their advisers.

We have an intense sympathy with medical students, as we know only too well the privations and struggles that many undergo to obtain their professional education, but we also know that if their license is to command respect, either from themselves or the community at large, it must emanate from an authority not only noted for the wisdom of its enactments, but for the steadfastness of its purpose, for the firmness with which it withstands the assaults of secret foes or false friends, and for the vigour with which it enforces whatever rules it believes most likely to advance the best interests of the whole profession.

The Medical Council of Ontario has done a good work, is doing a good work, and we hope it will continue for many years, to labour with the same zeal, for the advancement of our noble calling, for the healing of those differences

which have too often disfigured our records, and for the maintenance of that professional standard which is not inferior to any in the civilized world.

EDITORIAL CHEER.

[It is wonderful what an invigorating effect such letters as the following have on the editor's life. How they lighten his cares, increase his joys, and stimulate him to renewed efforts for the benefit of his readers.]

DEAR MR. EDITOR,—I am ashamed for the manner in which I have treated you in return for your kindness for having sent me your valuable and instructive Journal during the past year. It is such a welcome visitor that I look forward with delight to the first of every month, when it reaches me.

You no doubt, Mr. Editor, meet many discouragements; but *cheer up*, you are doing a noble work. Your Journal is a paragon of what a Medical Journal should be. I am glad and proud to see it enlarged and hope the young medical men who are aiming after excellence in their profession, will read, mark, learn and inwardly digest the important truths contained therein. You have given us *wheat* without chaff—*corn* without husk—*gold* without dross and *truth* without falsity, for all which please accept the gratitude and thanks of your much obliged servant.

You will please find enclosed \$3.00 on my account.

INDEPENDENCE.—We may not be "the independent organ of the profession," and we may be "nothing but a school organ," but we have never devoted three separate editorials in one number to lamentation over the persecution of our colleague, because of his "illegal exclusion" from some position into which he tried to thrust himself, or because some pet enterprise of the school with which we happen to be connected failed to carry.

A meeting of the medical men of the County of Oxford was held at Woodstock on January 31st for the purpose of forming a Medical Association for that county.

Book Notices.

Practical Points in the Treatment of Strabismus. By A. MATHEWSON, M.D.

Annual Announcement of the Toledo School of Medicine for the Session 1878.

Manuel General de l'Instruction Primaire. Journal Hebdomadaire des Instituteurs et des Institutrices.

Malaria and Struma in their relation to the Etiology of Skin Diseases. By L. P. YANDELL, jun., M.D., Louisville, Kentucky. Reprint from *American Practitioner*.

Fifty-Second Annual Report of the Massachusetts Charitable Eye and Ear Infirmary for the year 1877. Boston: ALFRED MUDGE & SON, printers, School Street.

Toronto Eye and Ear Infirmary.—Statistics of the Intern or Resident-patients of the Eye and Ear Infirmary, Toronto, from the opening of the Hospital Department in 1870 to September 30th, 1877. There were 424 patients who were non-residents of Toronto, and only 82 Toronto patients. The former were maintained in the Institution an aggregate of 18,038 days, and the latter only 3,419 days. The directors will be pleased to furnish a list of the names of patients of any municipality on application to Mr. A. T. McCord, President.

MONEY VALUE OF LIVES.—Basing it upon the agricultural classes of Norfolk, Dr. Farr estimated that an infant at birth was worth twelve dollars and a half, in its prospective labour. Five years later his value as a productive agent was one hundred and thirty dollars; and five years later it was more than doubled. At the age of twenty-five he has attained the maximum value, six hundred and fifteen dollars a year. At fifty it is reduced down to three hundred and forty-five dollars, and so on down to seventy, when the value is only two dollars and a half a year. Should he live to eighty his value is one hundred and two dollars less than nothing.

Obituaries.

EDWARD MULBERRY HODDER, M.D.,
C. M., F. R. C. S., ENG.

This distinguished member of the profession died at his late residence in this city on the night of the 20th ult., from brain disease. His last illness dated back to an attack of hemiplegia, early in January, from which he partially recovered and was able to drive out. Some two or three years ago he had a somewhat similar seizure which necessitated his abandonment of work, and a trip to Europe to recuperate his powers. On his return he resumed practice as actively as before, but latterly the flagging of the vital powers became again apparent, although, being endowed with great natural energy, he would not himself admit that the stress of years was becoming burdensome.

As stated by his newspaper biographer he was born at Sandgate, Kent, England, on the 10th of December, 1810. His early education was acquired at Guernsey, and at St. Servans in France. His father being a captain in the Royal Navy he was destined for that service, which he entered as a midshipman in his father's ship in 1822; but after a year's experience of a seafaring life, he abandoned it for the study of medicine, which was more congenial to his tastes. At the expiry of his five years of articleship to the late Mr. Amesbury, of London, he passed the Royal College of Surgeons, and then devoted two years to professional study in the French capital, subsequently visiting Edinburgh, and then settling down in London, where he practised for two years. After leaving London he began to practice amid the scenes of his boyhood associations in St. Servans, France. After a year of practise there he paid a visit to the land of his subsequent adoption, and then returned to St. Servans, where he remained in practice three years longer. In 1838 he commenced practice in Queenston, and in 1843 he removed to Toronto, where he continued in practice up to the time of his death. He was married in 1834 to Frances, daughter of Capt. Tench, of Her Majesty's 87th Royal Irish Fusiliers, by whom he had several sons and daughters. One

only of his sons entered the medical profession. According to the Ontario Medical Register he took the M. R. C. S. in 1834 and the Provincial license in the same year. In 1845 he received the degree of C. M. from King's College, now University of Toronto, and in 1853 that of M.D. from Trinity College. In the following year, 1854, he became F. R. C. S., Eng. by election. He was President of the Canada Medical Association for 1875-1876, and sat at the Council Board of the College of Physicians and Surgeons of Ontario as the representative of Trinity College from 1872 to the time of his death. He was President of the Toronto Medico-Chir. Society in 1862, and was a member of the International Medical Congress in Philadelphia in 1876 by special invitation. In 1850 he was instrumental in forming the Upper Canada School of Medicine, which immediately became connected with Trinity College as its medical department, and was suspended in 1853.

In 1857 he became a member of the Toronto School of Medicine, and his connexion therewith was maintained up to 1868.

On the resuscitation of the medical faculty of Trinity College in 1870 he became Dean of the Faculty, and continued to fill that office up to the demise of that department in 1877, when its faculty became separately incorporated as the Trinity Medical School, to preside over which, he was again selected. He took an active part in the various medical charities of the city, and his connexion with the Toronto General Hospital extended over 24 years. At his death he was one of the consulting surgeons to the General Hospital, the Burnside Lying-in, the Children's Hospital, &c.

During the long period of 34 years in which he was practising in this city he acquired a very extensive *clientele*, and the reputation which he gained throughout this Province generally, as a surgeon and gynecologist, was second to none.

His contributions to medical science were not many, as, under the circumstances of his life, they could scarcely be; yet the unswerving confidence with which many looked to, and relied upon, his skill and judgment amply testified that his services to the individual were

great. Chief amongst his recorded experiences must be mentioned the success which attended his transfusion of milk in two out of three cases of cholera. He was among the first to give this method a trial, and it is to be regretted that subsequent trials of it in other cases of collapse from puerperal hæmorrhage, &c., both in his own hands and others, have not been equally successful. After Henwood, of Brantford, he was one of the first to perform ovariectomy in this country, and probably has done a greater number of these operations than any other of our surgeons, with, perhaps, the average success. He placed on record a case of luxation of the femur into the perineum.

He was not, of course, a man of unerring judgment, but the long term of his clinical experience, and its wide extent, always lent the weight of practical authority to his opinions, and his decided manner of expressing them carried conviction to a patient's mind. He was a man of good abilities, excellent opportunities, and more than average attainments, possessing much natural *bonhomie* and a pleasing address. As far as *savoir faire* in its less commendable aspect is concerned, however, he was totally deficient, and, up to the last, he met with those who were not unwilling to take advantage of his want of scheming capabilities. His social instincts were well developed, and no pleasanter host could anywhere be found than was Dr. Hodder at the head of his own table, or that of the Yacht Club, over which he so long presided. A man of decided character and generous impulses he was a firm friend, and as firm a foe, yet not unwilling to forget a seeming injury. True to the sailor instincts of his early life he was given to "spinning a yarn" occasionally, and when opportunity offered would narrate many a wonderful experience in his yachting cruises, and in connexion with the "red man" of the forest, whose acquaintance he was fond of forming. He was Commodore of the Royal Canadian Yacht Club for many years, and published a chart of the harbours of Lake Ontario. He was always fond of rural life, and an evidence of the interest he felt in the denizens of the woods is embodied in a paper which he read before the Canadian Institute on "The Song-birds of Canada West."

The universal regret at his removal from our midst is tempered by the knowledge that in the course of nature it would not have been long delayed, and by the reflection that "death which shackles accident and bolts up change" is only the portal to that rest which he has so well earned through a long series of years of labour not devoid of trials.

Meetings of Medical Societies.

We regret to observe in the English Journals the announcement of the death, on the 31st day of January, of Dr. Fleetwood Churchill, the late distinguished Professor of Midwifery in the School of Physic, of the University of Dublin; and in the French Journals the intelligence of the death of M. Claude Bernard, the eminent Professor of Physiology in the *Collège de France* since 1854. M. Bernard's chief contributions to Physiological science were the discovery of the diabetic centre in the floor of the fourth ventricle, the glycogenic function of the liver, and the uses of the pancreas. There was, however, no portion of his subject on which he did not contribute something to increase our sum of knowledge. He died at the age of sixty-four.

Dr. Hector Peltier, Professor of Institutes of Medicine in the Montreal Branch of Laval University, died on January 25th, at the age of 56. It was while attending his funeral that the fatal accident occurred to Dr. Robert Lee Macdonald, another of Montreal's most eminent physicians. Medical journals in Great Britain, France, the United States and Canada have had during the past month to chronicle the loss of very many of its most illustrious members, who leave behind as a monument of a noble work well done a reputation that will be "more lasting than brass and loftier than the regal structures of kings."

Dr. Lunsford P. Yandell, Snr. of Louisville, Kentucky, died on February 4th, age 73. Kentucky has lost one of her ablest and most celebrated physicians.

APPOINTMENTS.

James A. Sinclair, of the village of Hastings, Esquire, M.D., to be an Associate Coroner in and for the United Counties of Northumberland and Durham; James A. Sinclair, of the village of Hastings, Esquire, M.D., to be an Associate Coroner in and for the County of Peterborough; James Ross Anderson, of the Village of Ailsa Craig, Esquire, M.D., to be an Associate Coroner in and for the County of Middlesex.

WESTERN AND ST. CLAIR MEDICAL ASSOCIATION MEETING AT CHATHAM.

One of the most profitable and interesting meetings ever held by this Association was convened at Chatham on Wednesday last. The members present were as follows:—Dr. Bucke, Supt. Insane Asylum, London; Dr. Fraser, Sarnia; Dr. Beemer, Wyoming; Dr. Mitchell, Wallaceburg; Dr. Sampson, Blenheim; Dr. Van Velsor, Blenheim; Dr. Tye, Thamesville; Dr. Smith, Ridgetown; Dr. Graham, Bothwell; Dr. Rutherford, Chatham; Dr. Lumley, Glencoe; Dr. Bray, Chatham; Dr. Holmes, Chatham; Dr. Murphy, Chatham; Dr. Richardson, Chatham; Dr. Bright, Chatham; Dr. Fleming, Chatham; Dr. Van Allen, Chatham; Dr. Sive-wright, Chatham; Dr. Abbott, Chatham; Dr. Winter, Dresden.

On invitation, Professor McGraw, of Detroit, and Dr. Bates, of Washington, favoured the Association with their presence.

In the absence of the President, Dr. McLean of Sarnia, and the Vice President, Dr. Fleming, Dr. Beemer was elected chairman *pro tempore*, and called the meeting to order. After the reading and adoption of the minutes of the last meeting, held at Sarnia, several communications were read—one from the Secretary of Brant County Medical Association, relative to contract practice; also letters of regret from Drs. Brodie, I. M. Fraser and Edwards.

After attending to some business only of interest to the members of the Association, it was moved, seconded and carried, that Drs. Bucke, Fraser and McLean constitute the Printing Committee for the year ensuing, and that they be empowered to exercise their option with respect to the publication of papers in the forthcoming transactions.

The Vice-President, on his arrival, then took the chair.

The subject of a change of time and place for future meetings was introduced, and, after an expression of opinion by each member, it was unanimously concluded that the interests of the Association would be best served by holding the meeting semi-annually at Detroit in June, and at London in January. It was urged that

these cities could be easily reached by members living on any of the three great lines of railway; that freedom from interruption would be secured; that local jealousies and responsibilities would be avoided, and that some of the members would have other business in these cities which could be likewise attended to.

The tenure of office of those annually elected expiring at this meeting, the under-named gentlemen were proposed and elected to the following official positions:—

Dr. Tye, President.

Dr. McAlpine, Vice-President for Middlesex.

Dr. Lougheed, Vice-President for Lambton.

Dr. Lambert, Vice-President for Essex.

Dr. Sampson, Vice-President for Kent.

Dr. Fraser, Treasurer.

Dr. Beemer, Secretary.

Drs. Bucke and Richardson, Auditors.

All the purely business affairs of the Association now being over, the members prepare themselves for the literary and scientific treat they were about to enjoy in listening to the papers read by those members who had engaged to furnish them.

Dr. Fleming, of Chatham, read a carefully prepared paper on the "Causation and Pathology of Typhoid Fever."

A long and spirited discussion succeeded upon this subject, which was very ably dealt with by a number of gentlemen present, among others by Prof. McGraw, of Detroit. The greatest interest was evinced by each member in relation to this subject, and while some diverse views were maintained with force and ability, the utmost courtesy was displayed for opposing opinions. The conclusions arrived at were that typhoid fever may be, though rarely is, communicated from the patient to a healthy person, or may result from imbibition of impure water or by inhalation of poisonous atmosphere.

Dr. Fleming received the thanks of the Association for his paper.

The *piece de resistance* then followed, which was an elaborate and wholly original essay on "The Moral Nature and the Great Sympathetic," by Dr. Bucke, Superintendent Insane Asylum of London. A concise yet comprehensive review of this essay could only be given by reproducing *in extenso*, as the logical connection

between the several links in the chain of argument were so intimate that one could not be given without the others.

Dr. Sampson, in moving a vote of thanks, said that such an essay could not but reflect credit upon the members of this Association, and also upon the members of the profession throughout the world.

Dr. Tye, in seconding the motion, considered the Ontario Government fortunate in securing the services of a gentleman of such exceptional ability and executive power. Prof. McGraw, of Detroit, was elected honorary member of the Association.

Papers were promised for the next meeting by Drs. McGraw, Holmes, Lunley and Rutherford.

The meeting then adjourned, to meet at Detroit in June next.

After adjournment all present accepted Dr. Abbott's kind invitation on behalf of the Chatham Medical Association, to enjoy the hospitality of that Association at the Garner House, where a sumptuous repast was in waiting.

A. H. BEEMER, Secy.

Miscellaneous.

The Edinburgh University has this winter 2,252 students, divided as follows: faculty of medicine, 922; of arts, 919; of law, 347; of divinity, 64.

The Germans propose to lengthen their already comparatively long period of study for a medical diploma. *Deutsche Med. Wochenschrift*, Nos. 46 and 47, 1877.

Dr. Bigelow reports in the *Practitioner* a case of tetanus caused by a rusty nail in the foot, which was relieved in less than thirty minutes by introducing a drachm of chloral hydrate into the wound after it had been enlarged by incision.

CANADIANS IN ENGLAND.—H. C. Murray, M.D., McGill College, and A. Laphorn Smith, M.D., Laval College, having passed the required examinations have been admitted members of the Royal College of Surgeons, Eng.

BILL TO AMEND THE ONTARIO MEDICAL ACT.

—Whereas, it is expedient that the "Act Respecting the Profession of Surgery and Medicine" chaptered one hundred and forty-two, in the Revised Statutes of Ontario, and commonly known as the "Ontario Medical Act," be amended, and the meaning thereof be made more clear and explicit, therefore :

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows :

1. The following words shall be added to Sub-Section two of the first part of Section six of the Ontario Medical Act, after the word "*belongs*," at the end of the said Sub-Section:

"And no School of Medicine shall have more than one of its professors or teachers as a member of the Council; such member being the Representative elected by such School."

2. Section nineteen of the said Act is hereby amended by adding at the end thereof the following words: Provided that the examination which he shall have passed in so Graduating or Matriculating in Arts, shall be proved to the satisfaction of the Council to be equivalent in all respects to the Matriculation Examination of the Council; but nothing herein shall be held to exempt such Graduate or Matriculant from the payment of the ordinary matriculation fee as fixed by the Council.

3. Section twenty-three, Sub-section three, of the said Act, is hereby amended by substituting for the words: "*the twenty-fourth day of March, one thousand eight hundred and seventy-four*," in the fifth and sixth lines of the said Sub-Section, the words: "*his application for registration*"

4. Section twenty-nine of the said Act is hereby amended by substituting for the words: "*teaching bodies*," in the third line of the said Section, the words: "*Schools of Medicine in actual operation*."

5. Section thirty-five of the said Act is hereby amended by adding thereto, and as part of the sentence ending with the word "*patients*" in the last line of the said Section, the following words: "and for any professional services rendered by his order, and under his direction to such patients, by any Assistant, provided that in all cases such Assistant shall be a

"Student of Medicine duly Matriculated according to the regulations of the Council."

6. The following shall be added as a Sub-Section to Section thirty-five of the said Act:

Every duly qualified medical Practitioner, who, in accordance with the requirements of Section fifteen of the "Act Respecting the Registration of Births, Marriages and Deaths," chaptered thirty-six in the Revised Statutes of Ontario, shall duly record the death of any person upon whom he has been last in attendance during their last illness, shall receive from the Division Registrar the sum of One Dollar for recording the death and the cause thereof; but he shall not be exempted from the payment of the fine imposed by the Act aforesaid in the event of any neglect duly to record such death.

7. The following shall be added as an additional Sub-Section to section thirty-five of the said Ontario Medical Act:

No duly registered Member of the College of Physicians and Surgeons of Ontario shall be liable to any action of damages for "mal-practice," unless such action be commenced within one year from the date when the alleged mal-practice took place.

8. The following shall be added as an additional Sub-Section to Section thirty-five of the said Ontario Medical Act:

Every Member of the College of Physicians and Surgeons of Ontario, if summoned to give professional evidence at any inquest, criminal trial, or investigation of a criminal nature, shall, upon the Coroner, Judge, Police Magistrate, Justice of the Peace, or other judicial officer presiding at such inquest, trial, or investigation, certifying that the evidence of such Member was important, or likely to have been important, at such inquest, trial, or investigation, be entitled to demand and to receive from the Treasurer of the County or City where such inquest, trial, or investigation was held, out of the funds in his hands in the County or City Treasury, the sum of five dollars for giving such professional evidence, together with five dollars for each day's, or part of a day's necessary attendance or detention during the time such inquest, trial, or investigation was held; including among such days, the time necessary for travelling from and to his usual place of residence, to and from the place where such inquest, trial or investigation was held; and twenty-five cents for each mile of distance so travelled.