

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.
- Additional comments /
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

Original Communications.

Placenta Prævia. By JAMES PERRIGO, M.A., M.D., M.R.C.S., Eng., Professor of Medical Jurisprudence, University of Bishop's College, Montreal.

Read before the Medico-Chirurgical Society of Montreal, March 9, 1877.

On Saturday evening, October 9, 1874, I was called to attend a Mrs. P., an English lady, living in Albert Street, a person for whose confinement I had been engaged. She had counted for October 6th. During pregnancy her health was unusually good, in marked contrast to two former pregnancies. The messenger came in great haste, and informed me that Mrs. P. was flooding frightfully and was in great agony. Immediately after arrival I made an examination, and, true enough, she was losing a good deal of blood. The "os" was dilated to the size of a fifty cent piece, was soft, and I could see was dilating rapidly. The placental edge occupied the right half of the "os," and it could be easily detected through the uterine wall. The pains were firm and strong, and were occurring in rapid succession. The membranes had not ruptured. Making the examination did not occupy me three minutes, and, during this time, the hemorrhage had ceased. Seeing then that the labour was rapidly progressing, and the patient and friends thinking that I had, by the examination, stopped the bleeding, I concluded to let nature have her course, merely watching for any return of the hemorrhage. At the end of half an hour, during which there was no hemorrhage at all, another examination was made, the os was dilated to double its former size, the bag of waters being very large, and more projected to that side unoccupied by the placenta. I ruptured the membranes, which were very thick and tense, and a perfect torrent of liq. amni came away. Only once have I seen such a quantity, it flooded the bed and went through the bedding on to the floor in a perfect stream. In passing my finger up as far as it could reach, I could see the placenta was detached that far, but could not make out whether it was wholly so or not. In passing the finger up, some hemorrhage occurred, but uterine pains coming on more strongly it ceased. In about one hour after the membranes were ruptured,

labour was completed, the placenta coming away immediately after the child. The child was a female, alive, and of the ordinary size, and appeared to be fairly conditioned. The mother conyalesced well, and was about in the usual time. This being my first case of Placenta Prævia, I congratulated myself on nature doing her work so well. The amount of hemorrhage before my arrival must have been considerable, but she did not appear to be much affected by it, but appeared to be more frightened by the expressed fears of the friends around her. The first thing she complained of was a gush of blood when at tea, and immediately after, uterine pains began and continued without intermission, to the end. The whole labour did not occupy five hours.

My next case was a French emigrant's wife, living in St. Elizabeth Street. I was called to this case by a midwife. She had been called in during the morning. Hemorrhage, to a slight extent, had occurred shortly before her arrival. No examination was made but rest was enjoined. The hemorrhage ceased almost as soon as it commenced, and the midwife left, leaving strict instructions that the bed should be kept. About two hours after, feeling a desire to pass urine, Madame Lescoi got up, and immediately the hemorrhage returned. The midwife was again sent for, and, in the evening I was sent for. Upon examination, the "os" was not open. Through the uterine wall a soft sponge mass was felt, but not so low down in the uterus as in the last case. Placenta Prævia was supposed, and action taken accordingly. Considering the amount of hemorrhage off and on during the day, it was considered best to plug. She complained of no pain at all, and told me she had yet three weeks to go according to her own counting. This was about nine o'clock in the evening.

A little after midnight I returned, and found she was beginning to complain of slight pain in the back. The plugs were taken out, and the "os" found in the same condition. No hemorrhage had occurred, as the plugs were only stained by the blood remaining in the vagina. I did not plug the cervix, but merely the vagina. The first plug was a large one and well placed in opposition to the "os," and supported by others placed in afterwards. Fresh plugs were placed as a precautionary measure, and I left her, with instructions to be sent for if her labor

began. Six o'clock next morning I was sent for, and found that labour pains had set in. The plugs were taken out, the two last being well saturated with blood. The "os" was now open to the size of a twenty cent piece, and the edge of the placenta could be easily felt. When the last plug was removed, and during the examination, the hemorrhage was considerable, and my patient began to feel the drain. The uterine contractions were weak and irregular, so no time was lost in rupturing the membranes, and the placenta, as far as the finger could reach, was detached. This last proceeding has the influence of Dr. Barnes in its favor, and it was considered the best under the circumstances. A dose of ergot and brandy was given, and, in a few minutes, the uterine contractions became firm and regular. The os dilated quickly, and, in about an hour, as there was a trickling of blood all the time, I applied the forceps and completed the delivery. Immediately after extraction of the child, there was a tremendous gush of blood, which placed the patient in the greatest danger. Bread and milk was given, and a dose of ergot. The placenta was taken away immediately, without difficulty, and the womb fortunately contracted well. The child, a female, and undersized, was still-born. Convalescence was slow, but eventually a good recovery was made.

In these two cases, as regards the safety of the mother was concerned, I was extremely fortunate in having the womb contract well after delivery, and also in the absence of a rigid os. You may ask me why I did not puncture the membranes in the first case, when I first made the examination. I did not do so, because there was no hemorrhage at the time, and then again, labour was progressing rapidly. With regard to the second, puncturing the membranes and applying the forceps as soon as the "os" was sufficiently dilated, will, I hope, have your approval, rather than the operation of turning. The next case I have to mention was a much more serious one. I was called to this one at eleven o'clock one night last August. It appears that this person, the wife of a stonecutter, had commenced flooding that morning, and their usual medical attendant was called in. Rest was enjoined, and there was some cessation of the hemorrhage. During the afternoon the hemorrhage became alarming, but there was no change in the management of the case, and no

vaginal examination was made. This continued till about ten o'clock at night, when the patient fainted, and the state of affairs was most critical. At this juncture, the wife of the medical attendant became suddenly ill, and he had to cease his attendance. A midwife replaced him. When I arrived and took in the state of affairs, I considered I had a hopeless case to deal with. The patient was in a swoon, no radial pulse could be felt, and the heart's contraction just perceptible. She was blanched like a sheet. The amount of blood lost must have been enormous, the bedding was saturated through and through, large pools under the bed, and great streams of it all over the floor of the bed-room. In consequence of her being in a faint, there was no hemorrhage at the time of my arrival, so that I began at once giving her brandy and milk, and made it the special duty of one person to do so. She soon came too, when the bleeding at once returned. Making a vaginal examination at once, I found the "os" dilated to more than a fifty cent piece, and dilatable. Passing the finger inside the "os" the placenta was felt centrally implanted and very adherent all round. Having warned the husband and friends of the great possibility of the patient's death, and having sent for assistance, and knowing there was no time to be lost, I perforated the placenta and turned. This did not take more than two or three minutes, but during the operation my patient again fainted, but from which she soon rallied. I did nothing more than simply turn, merely seizing one foot, bringing it and the leg down. Very happily for her, the uterus firmly contracted, and I considered this was the means of saving her life. After this, there was no further hemorrhage; indeed, if there had been, death would have been the result. During the whole time brandy and milk was administered, and the stomach retained it all. After turning, I gave her about twenty minutes rest, and then completed the delivery and detached the placenta. The two halves of the placenta were quite adherent, but, with care, it was all nicely brought away. The child, a male, as you might expect, was dead. When the whole operation was over, I still thought the woman would die, the pulse was flickering and could not be counted, and there was that feeling of suffocation always present during severe loss of blood. However, she recovered, but not till six weeks

afterwards was she able to leave her bed, and, even at present, has not recovered her usual state of health. Off and on she suffers a great deal from facial neuralgia. In delivering through the placenta I had no choice; there was no time to be lost, and to have followed the treatment most accoucheurs advise us to do, would here have taken too much time; I mean, the finding out the least attached part of the placenta, detaching it, and delivering by the side of it. In this case, the placenta was equally adherent, and to have followed that treatment would have taken too much time.

Puerperal Convulsions. By O. C. BROWN, M.D.,
Acton Vale, Que.

If you think the following notes of three cases of puerperal convulsions worthy of insertion in the *Record*, I shall be glad if you will find a place for them, although they are very similar to other cases of the same kind, and there is nothing very new or original to communicate in regard to the treatment pursued; yet as I kept careful notes of them all through, and observed some symptoms, both before and after the respective labours, which agree with the remarks upon puerperal eclampsia in Cazeaux obstetrics, especially in regard to the urine, I think these cases perhaps worthy of being read.

Case 1.—Mrs. F. M., of the 10th Range of Actonvale, a French woman, sent for me on the 18th December 1875, she being in labour, as her husband informed me, of her sixth child. On my arrival at about 10 p. m., I found the patient walking about, in the first stage of labour, the os uteri moderately dilated, soft parts in excellent condition; bowels had been freely opened about two hours before my arrival, the patient having taken a dose of oil; bladder also empty; the patient vomited severely, and was continually using the chamber-pot to pass her water, which flowed in great quantities, the urine of a clear colour, and during my stay she must have passed eight or nine quarts, as she nearly filled the chamber-pot three times. The urine was of a clear, pale yellow color and upon using the simplest tests, heat and nitric acid, it gave albumen in large quantities, became very viscid on standing a short time, but was almost of a transparent color; she com-

plained of a headache, and had suffered for some time from pains in the loins and back, and general feeling of weakness. I administered some hydrate of chloral, and at 2 a. m., she was delivered of a female child weighing 9½ lbs. I left her doing well, and the same day I went to see her, and met her husband coming for me, who told me she was in convulsions, she had suffered very much after I left from headache, and gradually became drowsy. I found her just recovering from a paroxysm, which was the fourth she had undergone. I administered sixty grains of the hydrate of chloral, and tried to ascertain if any clots remained in the womb, but everything appeared to be in good condition, and the discharge seemed normal. Another paroxysm coming on I put her under chloroform, and kept her under the influence of the anesthetic for thirteen hours, after which time no more convulsions occurred. I used the chloroform to complete insensibility, pulse when in that state being soft, rapid and somewhat weak, and the respiration easy. She suffered for some time after from loss of vision, Fronto-occipital headache and great weakness. For the blindness, I gave bromide of potassium in full and regular doses. She recovered completely.

Case 2.—Mr. X. came to me from Durham, towards the middle of September, 1876, and told me he should need my services in a few weeks, for his wife who was expecting her confinement. He said that for some time she had been passing a large quantity of pale-yellow urine, and stated it was most extraordinary the immense amount of water she passed daily, she had been troubled with pain in the back for some time, and was often confused and stupid and suffered from a severe headache. I ordered some quinine wine and iron, and told him to let me know how she got along. About the first of October, I was sent for to attend her, and found her in violent convulsions, pulse hard, quick and bounding; os slightly dilated and rigid, soft parts also stiff; child occupying the first position. As I always looked upon chloroform as the sheet anchor for rigidity of the os and eclampsia, I immediately put her under the influence of that agent until complete anesthesia was produced, and the pulse was soft and small. Under the chloroform all convulsions gradually passed away, she remained in this state until 6 a. m., about seven hours after my arrival, when

the os having fully dilated I effected delivery per forceps of a male child weighing $8\frac{1}{2}$ lbs.; patient came slowly out of the comatose state, and could remember nothing, not even of the beginning of her sickness; after a little flooding and loss of vision, which last only went away after two weeks, she came round, and in a month was perfectly well.

In this case a bottle of urine left with me gave all the signs of albuminuria, the urine being viscid and frothy, and heat, nitric acid and other tests shewing albumen in large quantities; she also passed urine in abnormally large quantities for some time after.

Case No. 3.—Mrs. S. St. A., of Actonvale, sent for me to see her about latter end of January 1877; she was then about eight months pregnant, of her first child, (had incurred a miscarriage some time before, at 4 months, and had lost a good deal of blood). She wished to consult me about her water; was daily passing two to three chamber pots full, colour clear yellowish, and viscid, depositing upon standing, a yellowish sediment; I prescribed tonic medicine, and advised rest for the patient, and told her mother I feared she would have a very severe labour; that I dreaded puerperal fever, or convulsions. Upon testing the urine it presented all the characteristics of being highly albuminous.

On Sunday night, I think the 3rd February, I was sent for, and on my arrival at 9 p.m., found her in labour, first stage, os slightly dilated; head in first position, and everything as regards soft parts, bowels and bladder all right; she was vomiting severely, I gave some chloric ether and paregoric; returned to my office, tested some urine which I brought with me, and found it similar to that of cases 1 and 2. Saw her again at 11.30 p.m., labour rapidly advancing, and at 12.15, she was delivered of a male child weighing 12 lbs. I left her in good condition, excepting some headache, for which I gave chloral hydrate. Monday the same day I went to see her, found her pretty well; had some severe after pains; had passed a great deal of water; discharge all right; complained of headache, pains running down the neck, gave bromide of potassium and left some chloral for the night. Tuesday morning I found her about the same, excepting she looked very much exhausted, in fact the look of weak-

ness and exhaustion surprised me, as she had not had a hard labour; I felt anxious and said I would return at midnight. I might add that the pulse and temperature were but little above ordinary; was called the same night about 12 a.m.; patient in violent convulsions and presented a frightful aspect, had undergone 4 attacks while they were seeking me; tongue badly wounded. I sent for Dr. Mignault, on my arrival. who advised injections of chloral; and I immediately administered an injection of 60 grains, with no effect; using the syringe brought on a paroxysm, which continued every ten minutes, (before they had occurred about every thirty minutes), I determined to give chloroform, and put her under its influence, and so she remained about six hours, when I gradually withdrew it, and as she shewed no signs of returning convulsions, I left her without it, and they never returned; and after eight days of total blindness; great exhaustion and headache, she gradually got better, and is now well enough, but very weak. I gave nothing but bromide of potassium for the loss of vision and headache. The milk came slowly, and she now nurses her child, but has not much milk.

The above three cases all presented the same symptoms before and after delivery, (1) intense occipito-frontal headache, pains radiating down the neck to the back, (2) severe vomiting before and during labour, and this vomiting was severe from the commencement of pregnancy, (3) the peculiar state of the kidneys resulting in copious secretions of highly albuminous urine, with pain in the back and loins and general weakness and hebetude.

Is the albuminuria dependent on the convulsions, or is the convulsions an effect of the state of the kidneys? Why do some women only suffer from these convulsive attacks, while the great majority remain free? Again, eclampsia does not belong to Bright's disease of the kidneys, excepting towards the last. Why does pregnancy call forth the eclampsia? Is there a certain state of the nervous system, of the blood, or a peculiar diathesis, which predisposes to eclampsia during pregnancy, and which only seems to manifest itself at that time by certain peculiar symptoms, such as convulsions, etc., etc., etc.?

I trust the above cases may be worth perusal, in the last only I succeeded in getting a consul-

tation. But in all I followed the same treatment. The tests for albumen were all of the simplest kind, no microscopic examinations being made. I do not fear eclampsia when I can administer chloroform, for I consider it the sheet anchor.

Actonvale, March 7, 1877.

Progress of Medical Science.

A NEW REMEDY, CALLED DIGESTINE.

By A. F. SHELLY, M. D., of Philadelphia.

This is obtained from the gizzard of the domestic fowl (chicken) and is a specific for vomiting in pregnancy. I have used this remedy for twenty-five years, and it has never failed. It is also the most powerful and reliable remedy for the cure of indigestion (dyspepsia,) and sick stomach caused from debility of that organ. It is useful in all cases where the pepsines and pancreatines are used, but with much more certainty of its good results, for it puts all those preparations, in my experience, in the background.

In complicated affections of the stomach, such as inflammation, gastralgia, pyrosis, etc., it may be combined with subnitrate of bismuth and opiates; and in diarrhoea and cholera infantum, with astringents, both vegetable and mineral. I have given the article to several prominent physicians, who have used it with the happiest results, among whom I may mention Professor E. Wallace, of the Jefferson Medical College; he gives me the result of seventeen cases as follows:—

In vomiting of pregnancy, out of nine cases he cured six, and palliated two, and in one case the remedy was not taken according to direction, and therefore had no effect.

He used it in seven cases of sick stomach caused by chronic inflammation of the uterus; cured five, and two remained doubtful. He also used it in a case of very obstinate sick stomach, caused by an irreducible hernia, and says this was the only remedy that gave any relief.

We, who have some experience, all know that vomiting of pregnancy is a sore affliction, and in some cases almost unendurable, nay, indeed, putting life in jeopardy; but in digestine we have a remedy which will prove to be a great blessing to mothers, who, as yet, think vomiting must be endured as a natural consequence.

If I am able, by this publication, to induce the medical fraternity to make use of the remedy, I am positive that a great boon will be

conferred upon a class of sufferers who claim our sympathy.

The dose is from five to ten grains, hardly ever more than five, except in obstinate cases. For children, from one to five grains. My mode of administering it is in a spoonful of water or tea, or it may be strewn on a piece of bread and covered over with a little butter; it is, however, nearly tasteless. In dyspepsia and in vomiting of pregnancy, I direct it to be taken half an hour or so before each meal. In other affections of the stomach and bowels, every two to four hours. I give it uncombined, except in complicated cases, as heretofore mentioned.

The methods by which this principle can be obtained from the viscus are various. When I commenced to employ it, I used it in rather a crude state, by pulverizing the lining membrane of the gizzard; but it requires too much care and precision in the drying and cleansing operation, in order not to destroy its virtues. There is also great inconvenience in obtaining the viscus during the heat of summer and extreme cold of winter, as temperature is one of the main things to be observed, in order to preserve its efficacy, purity and sweetness. Later, finding this mode of preparation unsatisfactory, and inconvenient for the above reasons, I consulted with Wm. R. Warner & Co., 1228 Market street, Philadelphia, who have prepared a form, designated digestine; its purity, and also its good effects I can vouch for.—*Philadelphia Medical and Surgical Reporter.*

SULPHO-CARBOLATE OF SODIUM IN DIPHThERIA.

By W. E. ANTHONY, M.D., of Providence, R. I.

The object of this paper is not to give the clinical history of diphtheria, but to call attention to a remedy which, in the hands of those who have had experience in its use, has proved a great benefit in the treatment of this disease. I refer to the sulpho-carbolate of sodium. My attention was first called to it by a paper, read before the Rhode Island Medical Society, by Dr. C. H. Fisher, in 1875, in which he detailed his experience in its use and the formula for its preparation. I have notes of eighteen cases of true diphtheria, occurring within the past three months, in which I have used the remedy with satisfactory results in all but one case. The fatal case occurred December 11th, and was that of a delicate child, three years of age, the disease proving rapidly fatal in thirty-six hours from the time of invasion. While I do not consider the sulpho-carbolate a specific in this disease, I do think that its judicious and persistent use will, in many cases, be followed by an amelioration of its symptoms.

Just what its mode of action is I am not fully prepared to say. It is possible that it acts as an

antidote and eliminative to the peculiar blood poison which is the cause of the disease. It is a stable salt, parting with its acid only when brought in contact with the fluids of the body. In one case, where a large quantity had been used for several days, the odor of carbolic acid was plainly perceptible in the urine. The remedy may be used in every form and stage of the disease, in doses of from one to ten grains, repeated every one, two, three or four hours, according to the necessities of the case. The proportion of acid in the salt is about one-fourth, which will determine the dose.

I have given as high as one hundred and twenty grains in twenty-four hours, to a child seven years old. It may be combined with quinia sulph., tinct. ferri mur., ammonia carb., or given in brandy, whiskey, wine, syrup, or any aromatic water.

A very good way to dispense it to children is to mix it with sugar and let them eat it. For adults I sometimes use the "cachet de pain." My rule is to begin the administration of the remedy as soon as the disease is recognized, and to continue it in increasing doses until its effect upon the disease is manifest, then gradually to diminish the dose and increase the intervals between the doses.

In addition to the use of the sulpho-carbolate, I always use tonics and stimulants freely, and nourishment, in a concentrated form, such as beef extract, cream, etc.

The local treatment is directed to the removal of the false membrane and the reduction of the local inflammation. This result is obtained, first, by hastening the natural progress of exfoliation: second, by the use of such remedies as will destroy the micrococci and dissolve the pseudo-membrane.—*Medical and Surgical Reporter.*

THE TELEPHONE.

In the wonderful progress of science the time has come when, by the aid of a telegraph wire stretched upon poles in the usual way, individuals may converse with each other in audible tones although separated by hundreds of miles of space. A man in Boston may sit at his desk in State Street, and converse with his partner or friend in Wall Street, New York, with as much ease and facility as if they were sitting side by side. This is indeed a stupendous achievement, and affords evidence that the hidden powers of nature are competent, when understood, to bring all the nations of the earth into instantaneous verbal communication with each other.

The telephone is the invention of Prof. A. Graham Bell of this city, and has resulted from a course of inductive reasoning, growing out of a careful study of the philosophy of sound, as related to wave motions in air, and in metals

when induced by electrical excitation. The instrument is exceedingly simple and inexpensive, and easily understood. It consists in attaching to the terminals of the ordinary telegraph wires between any two points powerful compound magnets, with coils of wire connected. In front of the poles, surrounded by these coils of wire, is placed a diaphragm of iron. A mouth-piece to converge the sound upon this diaphragm substantially completes the arrangement. When the human voice causes the diaphragm to vibrate, closing and breaking the circuit with each vibration, electrical undulations are induced in the coils precisely analogous to the undulations of the air produced by that voice. These coils are connected with the line wire, which may be of any length, provided the insulation be good. The undulations induced in these coils travel through the line wire, and passing through the coils of an instrument of precisely similar construction at the distant station, are again resolved into air undulations by the diaphragm of this instrument.

In order to attach this device to any lines of telegraph, it is only necessary to remove connection with the batteries, close the circuit, and the work is done. The wire serves the purpose of a speaking-tube, and when cities and towns are connected the results are the same as if the most perfect tubes were in use for the purposes of communication. How far this result can be made to reach is as yet undetermined, but experiments show that the communication is perfect through wires two hundred miles in extent. There is no reason to doubt that if the sounds are clearly transmitted between this city and Portland, and Conway, N. H., as they have been, a thousand or more miles will offer no obstacles. It is indeed probable that Europe will soon be within speaking distance of us, and that the Londoner may be able to inform his New York friends by word of mouth what he has upon his breakfast table as he sits down to the meal.

The most interesting experiments with the telephone were made on Monday evening, February 12th, between this city and Salem, distant eighteen miles. The wires were brought into the hall of the Essex Institute at Salem, and a large audience were present to witness the proceedings. Professor Bell briefly explained the construction of the instrument, and then sketched his studies of the system of transmitting sounds. An intermittent current was first sent from Boston by Mr. T. A. Watson, Professor Bell's associate. This caused a noise from the telephone very similar to that of a horn. The Morse telegraph alphabet was then sent by musical sounds, and could be heard throughout the hall. A telephonic organ was then put into operation in Boston. "Should Auld Acquaintance be Forgot" and "Yankee Doodle" were readily heard through the hall and heartily recognized. At this point Professor Bell asked

Mr. Watson for a song, and "Auld Lang Syne" came from the mouth-piece of the instrument almost before his words were ended. Mr. Watson was then asked to make a speech to the audience. He expressed himself as having more confidence eighteen miles away than if he were present. His speech was as follows: "Ladies and gentlemen, it gives me great pleasure to be able to address you this evening, although I am in Boston and you in Salem." This could be heard thirty-five feet distant, that is all over the hall, and brought down the house with applause. A system of questioning was then carried on, and Mr. Watson was asked if he heard the applause. The answer was, "I was not listening. Try again. The applause was given, and its receipt at once acknowledged in Boston. Coughing and singing were then heard, and a variety of questions were asked from the Salem end, among them, "What news from the electoral commission?" followed by the distinct answer of "I don't know of any."

The results of the experiment were "telephoned" to the *Boston Globe*, and the despatches constitute the first ever sent to the public press by the new method. Another experiment is soon to be tried in which a band of music will be stationed in Boston, and it is designed to show that the tones of the instruments can be enjoyed by an audience eighteen miles away. It is therefore possible that a choice concert in any great city may be heard and enjoyed simultaneously all over the country. These considerations must awaken profound wonder and interest in the mind of every one. We shall keep our readers informed respecting the telephone. —*Boston Journal of Chemistry*.

FRENCH PRESCRIPTIONS FOR ACNE.

La France Médicale states that M. Dudet, of Lyons, prescribes the following treatment in acne. Friction is to be made every evening over the acne papules with the following:

℞ Adipis..... ʒ v.
Sulphuris,
Acid tannici aa gr. viij. ad xv. M.

In the morning the face is to be bathed with warm water, to which a little bay rum has been added, the proportion being increased from day to day until it amounts to one-third. M. Doyen, of Lyons, recommends bathing with the following:

℞ Hydrarg. bichloridi gr. xxx.
Tinct. lavandulæ..... f. ʒ ijss.
Aquæ distillatæ..... f. ʒ x. M.

M. Hardy uses this formula:

℞ Potassii sulphureti,
Tinct. benzoini aa ʒ ijss. ʒ
Aquæ f. ʒ x. M.

Two teaspoonfuls in a glass of warm water to be used externally.

SALICYLIC ACID IN ACUTE RHEUMATISM.

At the December meeting of the Medical Society of the Royal College of Physicians in Ireland, Dr. J. W. Moore communicated the results of his experience of this remedy in the treatment of acute rheumatism in the Meath Hospital and County Dublin Infirmary. Detailed observations of six cases were given, and brief notes of ten cases treated by other methods were appended for the sake of comparison. The ten patients spent an average period of 26.6 days under treatment in hospital. The average duration of the stay in the wards of those who were given salicylic acid was 14.8, and this, too, although most of the patients treated by it were purposely kept under observation for many days after the symptoms had disappeared. The mean duration of the sojourn in hospital is now only about *one-half* what it used to be. Again, an examination of the clinical charts in the cases shows that under the ordinary methods of treatment the average number of "days of pyrexia," or days on which the axillary temperature reached or exceeded 99° Fahr., was 19.3. Under salicylic acid, on the contrary, it was 5.5 days. So that the symptom of feverishness was but *one-fourth* as persistent in the second series of cases as it had been in the first. If it were fair to base any definite opinion on so few observations, the author would give the following conclusions as to the value of the new treatment:

1. Salicylic acid appears to be a valuable and almost specific remedy in the treatment of acute rheumatism.
2. After the administration of a few moderate doses of five grains each, given at hourly intervals, a marked amelioration of the symptoms usually occurs. Thus, the temperature and pulse begin to fall, the swelling and pain of the affected joints subside, and the patient sleeps.
3. The above doses—i. e., of five grains each—are quite sufficient to produce an impression on the disease, while the patients make but little complaint either of the frequency of the dose or of the taste of the medicine.
4. When pushed far, it sometimes causes singing in the ears and diaphoresis. Under these circumstances its administration should be temporarily suspended.
5. To prevent relapse, it should be given for some days, but at gradually lengthening intervals.

6. Finally, as to its probable action as a preventive of the dangerous cardiac lesions of acute rheumatism, the author could only endorse the words of Dr. Coates, of Belfast, in a recent paper: "I think it can hardly be denied that medicines which cut short the disease, as I believe there can be no doubt salicylic acid does, must render the liability to these complications less."—*Med. Times and Gaz.*, Dec. 30, 1876.

SUBCUTANEOUS INJECTION OF MORPHIA IN THE TREATMENT OF SCIATICA, LUMBAGO, AND BRACHIALGIA.

Dr. Henry Lawson, Assistant Physician to St. Mary's Hospital, London, since the publication of

his work on this subject, has accumulated additional experience which he now lays before the profession (*Med. Times and Gaz.*, Dec. 16, 1876). He says: "I have had more than seven years' experience of the results of the subcutaneous injection of morphia, and I have seen more than eighty cases of these forms of nerve affection—some of them excessively bad cases—and in not more than three did this treatment prove a failure. That is to say, that subcutaneous injection of morphia invariably gave relief—in most instances complete relief—and that by means of this relief the patient was enabled to eat or drink with comfort, and by help of perchloride of iron, and in some cases by cod-liver oil, he was thus enabled to put on flesh rapidly, and to repair the waste of tissue under which he had been laboring. And here I would mention that a remedy which is most valuable as a restorative in these cases is the hypophosphite of soda. Indeed, I think it as good a mode of administering phosphorus as any other. But in hospital cases it is questionable whether it can be beneficially employed, for we all know that the present system of administering drugs in many of our hospitals is most objectionable and faulty. It must be confessed that we owe our knowledge of this drug and its valuable effects in great measure to the recommendation of Dr. C. B. Radcliffe, to whom indeed, I think, we may give all the credit of introducing the phosphorus into the medical treatment adopted by this country.

It is as a means of relieving the pain that I administer the morphia—not, as some have erroneously imagined, as a means alone of curing the disease; and while the patient is painless there must be, as I have already laid down, every attention paid to his feeding, his walking, his warmth, and his *ease of mind*; to this last above all, for, be assured, a patient whose mind is kept constantly in a condition of worry cannot be improved in bodily condition by any mode of treatment whatever.

Of course the salt I employ is that of the muriate of morphia dissolved in pure distilled water alone. Take five grains of this salt, and add to them a single drachm of water, then heat the mixture over a spirit lamp, and a perfect solution will form. This will, on cooling, in winter assume a rigidly solid condition, and in summer, save in very hot weather, will be unfitted for injection if cold. And here it is necessary to say that most muriate of morphia, as got from local chemists, is worthless. I have tried at many houses, where I have obtained other drugs in comparatively pure state, to obtain pure muriate of morphia, but in vain. It, when so obtained, was found to dissolve with excessive difficulty, to form a muddy instead of a perfectly clear liquid, and to leave a certain amount undissolved. Hence I have for years obtained the morphia I use from Messrs. Hopkins and Williams, of Cross-street, Hatton-garden, of whom, it is perhaps needless to say, I never obtained any but the very purest salt, which was readily and completely soluble in warm water.

With regard to injection, I may say that a further experience has borne out my remarks of four years

ago—viz., that it is of importance to make the injection as close to the seat of pain as possible. It would, of course, be utterly out of my power to attempt any explanation of this. Indeed, as far as physiology is concerned, the facts would appear to be against this view. But I simply say that my experience—and it is derived from many trials on my patients—points to this, that to allay pain most successfully by subcutaneous injection of morphia, we must, as a rule, inject as close to the seat of pain as possible. As a fact that likewise is opposed by some physiological reasoners, we may mention that the best treatment of acute bronchitis is the production of an irritation of the surface of the chest. This is well known by the medical man, but it cannot be explained by certain physiologists, who therefore suggest that counter-irritation in any other direction would be equally efficacious. But we know that it is not.

And as to needles. I have had considerable experience, having made many thousand punctures with their aid; and I have come to the conclusion that, as the instrument is made nowadays, in most cases it is utterly and entirely wrong. I will not say that the instrument-makers are to blame for this, but assuredly whoever first ordered the gigantic instruments considerably over two inches in length that are generally appended to a subcutaneous syringe case, made a grievous mistake, and, furthermore, committed an error which, in its results, falls on both the patient and the practitioner. On the former it tells by the production of occasional abscesses, which we know are produced sometimes if a needle is introduced to a depth of two inches into the skin; and also by the fact that the drug is not so rapidly absorbed, for any one with the smallest knowledge of microscopic anatomy is aware that the portion of the integument immediately beneath the "zone of indifferent tissue" is loaded with minute bloodvessels, while further in you have merely loose connective tissue, with, of course, larger vessels, but not anything like numerous vascular parts you have got above. Then, secondly, it tells against the physician, for, if he has many injections to perform, we may put down as a moderate allowance for breakage at least one needle in three weeks. And these two or three errors may be easily avoided by using a needle of not more than half an inch in length. My own needle barely measures three-eighths of an inch long, yet the last needle that I obtained I have used in at least seven hundred instances, and it yet shows no symptom of yielding; it is as firm as when it left the maker's hands. And here I must offer a piece of advice to the beginner. In the first place, you should always use silver wire for plugging your needles with when they are put in the case, and invariably employ plain steel needles—firstly, because they are less easily broken than gold; secondly, because they are finer in make; thirdly, because they retain their points exceedingly well, which gold does not; and fourthly, and most important, because they are driven in with one-fourth of the pressure that is required for a gold needle.

And here I may mention that the judicious practitioner will invariably cleanse his syringe before laying it aside. This is essential in the case of morphia injections, for if it be not done the instrument will be unfit for use on the next occasion. It is easily done: Just draw up enough pure water to fill the instrument, then force half of it through the nozzle, and next partly unscrewing the needle, and closing the point with the finger and thumb of the right hand, inject the remainder of the pure water through the screw part that unites needle and cylinder. Then place the wire in the needle and your instrument is ready for its case, and will be immediately fit for use when required again. These directions may seem trivial, but those who follow them will not be of that opinion.

With regard to the quantity of morphia solution that may be injected, I have had since the publication of my treatise on Sciatica some peculiar experience. I mean that I have met with some cases in which such a small dose produced such excessive vomiting that at first I thought I should have had to give up this method. And, indeed, I should have desisted giving the injection had not the patients invariably declared that, notwithstanding the illness it occasioned, they would still persist in having the injection, because, as they alleged, it so greatly diminished the pain even forty-eight hours after it was done, while for some hours it absolutely prevented it. In three of these cases the largest dose that could be given subcutaneously without the infliction of vomiting was the one-twenty-fourth of a grain, so that in each of them I was compelled to make a specially diluted solution, as it would have been difficult to estimate that proportion in case my own solution were employed.

COLLECTION OF PRESCRIPTIONS FOR DISEASES OF THE NERVOUS SYSTEM.

BY C. C. VANDERBEEK, M.D.

Having for years carefully preserved the copy of the prescriptions ordered for patients at the various clinics of our numerous hospitals and dispensaries, at which I may have been attending, I now submit some of them to the readers of the *Medical and Surgical Reporter* :—

SCIATICA (*Non-rheumatic*).

℞. Quinina sulph., grs. xij.

Sig.—Two grains every four hours, in solution.

℞. Tinct. iodinii.

Sig.—Paint the painful part with this once a day.

℞. Morph. sulph. gr. ̄.

Sig.—Give hypodermically, once a day.
Da Costa.

DOUBLE NEURALGIC SCIATICA.

Full, nutritious diet. Life in the open air.

Such use of hypodermic injections of morphia as shall insure ease from pain; also:—

℞. Pil. ferri. arsenic. et quininae.

Sig.—One pill after each meal. *Da Costa.*

EPILEPTICAL SEIZURES AT THE MENSTRUAL PERIOD.

The case in question was a young woman who menstruated only once in six weeks, and then the flow was very scanty. The convulsions were pronounced to be due to reflex irritation, from congestion of the ovaries.

℞. Aloes, gr. j
Belladonna ext., gr. ̄
Capsici, gr. ̄
Ft. pil. gr. ̄.

Sig.—Taken every evening for a few days before menstrual period. Just at this time, leeches applied over the ovaries, and warm baths, will be of service. The diet must be of easy digestibility.

Also use the following prescription:—

℞. Pot. brom., grs. xx
Tinct. belladonnae, ℥ ij
Syrupi,
Aqua, aa q. s., ad. ft. ʒ ij.

Sig.—One dose three times a day.

It may be remembered that it was in just such cases as these, of convulsions attending disorders of menstruation that bromide of potash first came into use. It was soon discovered that its antispasmodic virtue extended to all forms of epileptic seizures, whether connected with some obvious irritation, or having no such dependence, being idiopathic in character.

IDIOPATHIC EPILPSY.

℞. Sod. Brom. grs. x
Tinct. aurantii cort. ℥ xx
Tinct. belladonnae, ℥ ij
Mist. acaciae, q. s., ad. ft. ʒ j. M.

Sig.—One dose, taken in water, two hours after each meal.

Or —

℞. Potas. bromid., ʒ ij
Ammon. bromid., ʒ ij
Pot. bicarb., grs. xx
Tinct. columbae, ʒ ij
Aqua, ʒ xij. M.

Sig.—Teaspoonful to tablespoonful, ter die.

The addition of the columbo makes the mixture more agreeable to the stomach, and also acts as a mild tonic, and it also preserves the liquid from becoming flocculent, as it tends to do when the menstruum is composed of water solely.

NEURALGIA.

℞. Veratriae, grs. x-xx
Adipis, ʒ j. M.

Ft. unguentum.

Sig.—Apply to part.

Also—

℞. Aconitæ, gr. ss
Veratriæ, grs. x
Adipis ʒ j. M.

Sig.—Apply to part.

NEURALGIC HEADACHE.

℞. Quiniæ sulph., grs. xij.
Morph. sulph. gr. j. M.

Triturate in a mortar, and divide into twelve powders.

Sig.—One powder every four or five hours.

UNCOMPLICATED SUPRA-ORBITAL NEURALGIA.

℞. Arsenici, gr. ʒ^{iv}/₄
Ext. conii, gr. j
Ext. cannabis ind., gr. ʒ^{ss}.

Sig.—One dose, ter die. *Da Costa.*

OBSTINATE NEURALGIA.

℞. Sodæ arseniatis, gr. ʒ^{iv}/₄
Cinch. sulph., grs. ij
Conii ext., gr. j.

Sig.—One dose, ter die. During the paroxysm use hypodermic injection of morphia.

CEREBRAL NEURALGIA.

℞. Chloral hyd., grs. x
Pot. bromid., grs. xx
Syr. aurant. cort., ʒ ss
Aquæ, ʒ iss M.

Sig.—One dose at bed time.

Also—

℞. Tinct. cinch. comp., ʒ ij
Fl. ext. cinch., ʒ j
Ammon. brom., ʒ ss. M.

Sig.—One teaspoonful, ter die.

OVARIAN NEURALGIA.

℞. Ammon. mur. ʒ ij
Tinct. aconit., ʒ ij
Syr. aurant. cort., ʒ viij. M.
Da Costa.

ANTI-NEURALGIC TONIC.

For long standing cases—

℞. Acid. phosphoric, dil., gttss. xx
Tinct. cinch. co., ʒ j
Strychniæ phos., gr. ʒ^{ss} M.

Sig.—One dose, ter die.

VERTIGO (*Gastric*).

℞. Argenti oxidi, gr. ʒ^{iv}/₄
Capsici pulv., gr. ʒ^{iv}/₄
Ext. colocynth. co., gr. j
Camphor. pulv., gr. ʒ^{iv}/₄ M.

Ft. pil. No. 1.

Sig.—Take after each meal

IDIOPATHIC VERTIGO.

℞. Sodii bromid., gr. xv
Ext. belladonnæ, gr. ʒ^{iv}/₄
Vin. colch. rad., gtt. x
Muc. acaciæ, ʒ. s. ft. ʒj. M.

Sig.—One dose, ter die.

If bowels are costive, take one comp. rhubarb pill each night.

CHRONIC HICCOUGH, FROM NO ASSIGNABLE CAUSE.

℞. Tinct. calabar bean, ℥ x
Pot. carb., gr. x
Mist. acaciæ, ʒ j. M.

Sig.—One dose, ter die.

No vegetables should enter into the diet. The food should be non-stimulant, making use of milk, eggs, etc. In some cases, tinct. of calabar bean alone answers very well. Sometimes a hypodermic injection of morphia cures or relieves.

INCIPIENT SOFTENING OF THE BRAIN,

Attended with bad memory, visions, giddiness and headaches.

℞. Acid. phos. dil., gtt. xx
Tinct. cinch. co., ʒ j
Tinct. nucis vomicæ, gtt. v. M.

Sig.—One dose, ter die.

Keep the patient in society; or send him upon a journey. Aim at bringing before his mind new scenes, etc.

SOOTHING NERVINE AND TONIC.

℞. Pot. bromid., ʒ ss
Ferri pyrophos., ʒ ij
Elix. humuli, ʒ ij
Aquæ, aa. ʒiv. M.

Sig.—Tablespoonful ter die. *McArthur.*

ANODYNE PILLS.

These have the advantage of not affecting the bowels:—

℞. Morph. acet., grs. ij
Hyoscyam, ext., grs. viij. M.
Ft. pil. No. xvj.

Sig.—One pill at bedtime.

LARYNGISMUS STRIDULUS.

Large doses of bromides. For a child two years old, six grains, every two hours, may be given. If there is any source of irritation, as from the stomach or gums, this must be removed. If not complicated with laryngitis, indicated by a hoarse voice, cold sponging is the grand remedy. To arrest a paroxysm, a dash of cold water in the face is often sufficient. If this fail, cold water applied to the whole body is of value. The child should be sponged faithfully and regularly, at least three times a day, and also allow the child to be much in the open air.

NERVOUS EXHAUSTION (*From Excess*).

General weakness, and tremors in the legs, being the symptoms.

R. Syr. calc. hypophosphitis, 3 ij
Ferri phosphitis, grs. ij. M.

Sig.—One dose, ter die.

Also—

R. Ol. morrhue, 3 j
Ter die.

Eat rare meat, milk, eggs; not very many vegetables, especially if digestion is poor.

Da Costa.

LESSENERED REFLEX EXCITABILITY.

Small doses of quinine, frequently repeated, will increase reflex excitability.

ARSENIC AND IRON TONIC.

R. Liq. pot. arsenit, 3 ss
Vin. ferri, 5 ij
Syr aurant cort.,
Aqua aa 5 et 3 ij. M.

Sig.—One teaspoonful, ter die, after each meal, on a full stomach.

PUERPERAL CONVULSIONS.

R. Pot. bromid., 5 j
Chloral hyd., 5 j
Camphoræ, grs. vj
Tinct. card. co., 5 vj. M.

Sig.—Dessert spoonful, every half hour, until relieved.

GASTRODYNIA.

R. Ol. cajuputi (on sugar), gtt. iv.

A mouthful of hot water will often quell the pain.—*Philadelphia Medical and Surgical Reporter.*

CURATIVE EFFECTS OF MILD CONTINUED COUNTER-IRRITATION OF THE BACK IN CASES OF GENERAL NERVOUS DEBILITY AND SPINAL IRRITATION.

Dr. Arthur Gamgee recommends the compound mustard liniment (Br. Ph.) as the best available counter-irritant in these cases, as it produces a remarkably active irritation of the sensory nerves of the skin, which subsides to a great extent when the preparation is removed, but which can be renewed almost indefinitely without leading to any eczematous, pustular, or ulcerative condition. He finds this plan of treatment more successful than the use of iron, cod-liver oil, phosphorus, or the constant galvanic current. The theory of its action which he gives is that counter-irritation exerts a tonic action on the local vasomotor nerve centres.

In consequence of the expensive character of the essential oil of mustard, and the ethereal extract of mezereon which enter into the composition of this liniment, it is very commonly adulterated and is nearly inactive. When properly prepared, the liniment

should possess a very pungent odor, and should produce an almost painfully acute sensation in the nostrils when it is smelled. If properly prepared a few drops of linimentum sinapis sprinkled over a pad of cotton-wool ten or twelve inches long and four or five inches broad, will suffice to produce, in a few minutes, pretty intense redness of the skin of the back, accompanied by more or less of the painful or burning sensation characteristic of mustard.

The general result of the use of this mode of counter-irritation is thus described: "On the first or second day of the treatment, the patient, if a delicate hysterical girl, may complain that the pain caused by the mustard is almost unbearable, and she may declare that the application cannot be continued. By diminishing the amount of mustard oil used, however, all such urgent objections on the part of the patient are removed. As soon as the application has been so controlled as to bring on merely an active glow and not unpleasant tingling of the skin, the patient declares that the increase in her strength is marvellous; the pain in the back and limbs undergoes a diminution, or, as long as the mustard counter-irritation is kept up, are completely in abeyance, the irritability of temper diminishes, and simultaneously the general health undergoes a marked improvement.

"The increased feeling of vigor produced by the treatment is not illusory; as a rule, I have found that the improvement thus commenced has kept up so that a hysterical girl who has been for some weeks confined during the day to a couch to which she could with difficulty make her way from her bedroom, has in a few days cheerfully taken walks of considerable length."—*The Practitioner.*

PHOSPHATE OF LIME IN THE TREATMENT OF FRACTURES AND WOUNDS.

Clinical observation has already confirmed the value of this drug, but a special phenomenon, which in a certain number of cases gives evidence of the activity of the reparative process going on in the injured bones, has apparently, as yet, escaped observation. Several patients in the wards of M. Dolbeau, in Beaujon, to whom this drug was administered in doses of thirty grains three times a day, complained of a sensation of tingling in the affected limb which ceased when the drug was withheld and reappeared when its use was resumed. The following cases exemplify this fact:

1. Alexandrine S— entered the hospital on July 13, 1867, with a comminuted fracture of the left humerus, complicated with a small external wound. Several methods of treatment were tried, but on the 8th of May, 1868, the fracture was still ununited. A spoonful of the syrup of the lacto-phosphate of lime, representing fifteen grains of the salt, was then given three times a day with the meals; at the end of eight days the dose was doubled. During the first week the patient's appetite became excessive, and it continued so for three weeks, after

which it returned to its normal condition. After the fifth day of the treatment the patient felt stronger, and she complained of a sensation of tingling, and of continuous pricking in the legs and arms, especially at the seat of fracture. The phosphate of lime was continued in the same large doses, and caused no disturbances of the general health. The formication gradually decreased in severity after the first week. The limb was placed in a silica splint, and when this was removed, on July 8th, the consolidation was almost complete.

2. Charles D.—received a compound fracture of both bones of the right leg on May 1st. On June 1st the wound had healed, but the callus was still soft. On June 3d he was ordered two spoonfuls of the syrup of the lacto-phosphate of lime three times a day. After twenty-four hours his appetite began to increase, and it became excessive about the eighth day. At the same time he complained of a marked sensation in the affected leg, which he compared to that produced by electricity and by numerous prickings. On June 20th the callus was resistant, although mobility still existed.

3. X—, fracture of humerus on June 12th. Consolidation well advanced on July 9th. On the 17th a spoonful of the syrup was ordered three times a day; these doses were doubled on the 19th. On the 22nd the appetite was excessive, and the patient felt in the fractured limb some formication, which gradually became more marked. The drug was withheld for four days, and on the fourth day all the phenomena had disappeared. It was then resumed in the same doses, and after three days the patient complained anew of formication.—*La Tribune Médicale*, December 3, 1876.

THE TREATMENT OF ERYSIPELAS BY THE MURIATED TINCTURE OF IRON.

By Dr. CHARLES BELL, Edinburgh.

The primary views I have hitherto advocated as to the nature and sources of erysipelas may be briefly stated thus:—In whatever form erysipelas may appear, it is the effect of blood poisoning from improper diet, and exposure to impure air; and, although in some instances it is apparently the consequence of infection, it may in reality be produced by those affected being exposed to the same vitiated source, and also by there being a peculiar idiosyncrasy in certain families which induces several members to be affected at the same time, yet not residing constantly in the same locality. There is also reason to suspect that, after exposure to the exciting cause, the disease may lie dormant in the system until stimulated into action by some irritation or excitement, or even by some depressing circumstance. In several of these respects it resembles diphtheria and scarlatina as well as puerperal fever; but more especially

in the fact that all these diseases yield to the same mode of treatment.

It may not be uninteresting to refer to some circumstances which seem to illustrate and confirm these views. That erysipelas is the result of exposure to a vitiated atmosphere is, I think, rendered obvious by the following cases reported by the late Dr. Begbie, senior, who relates that a locality in the New Town of Edinburgh became vitiated by the effluvia arising from putrid animal and vegetable matter in the shops on the ground floor and sunk flat, and that in one of the houses above, entering from a cross-street, all the inmates became sickly, and the man-servant was seized with a severe form of erysipelas. He was treated according to the practice then in vogue, and his "convalescence was slow and unsatisfactory, so that four or five weeks elapsed before the patient was able to resume his duties."

The family removed to another house, where the air was pure, and they soon all recovered their health, with the exception of the nurse, who became affected in a few days after the removal with erysipelas of a most inveterate character, thus showing that the disease must have been dormant in the system.

The wife of one of the shopmen in the vitiated locality referred to, "who was in the daily habit of attending her husband's place of business, and assisting him in conducting it, was, during the progress of the first of these cases of erysipelas, carried home in the pains of childbirth, and died on the fourth day after delivery, with obscure indications of puerperal peritonitis, and rapid sinking." In this case we have an example of the same vitiated atmosphere, giving rise to two apparently different diseases, erysipelas and puerperal fever.

The following cases give a striking example of the idiosyncrasy which exists in some families to have several members affected at the same time. The village of the Water of Leith, celebrated for its unhealthiness from its visits of cholera, fever, and other epidemics, and where the Board of Education have chosen to erect one of their largest educational establishments, was visited by erysipelas. Two sisters, living under the same roof, apparently caught the disease from different sources, having resided apart from each other for some time, the one occupying their present dwelling, the other residing with a gentleman in a distant part of the town. At the opposite side of the same lane a man became affected, although he had no communication with the sisters; and, in succession, other three cases occurred in the same household. Thus showing that different people exposed to the same polluted atmosphere, although not having intercourse with each other, are liable to become affected with the same disease.

Dr. Begbie relates another case which still further illustrates the view under consideration :

Mr. B., of full habit, became affected with erysipelas, and after a tedious illness made a good recovery under the treatment of the tincture of the muriate of iron. His brother, residing in a distant part of the country, with whom he had maintained no intercourse for many years, was attacked with the disease at the same time."

The following cases go to prove that similar results may occur in regard to diphtheria and scarlatina: Some years ago I was requested to attend a family occupying a large and apparently well-aired house in England. I found the youngest child, a delicate girl, was suffering from diphtheria. The head-nurse soon became affected, then the under-nurse, and in a short time eight of the family were laid up with the disease; but they all made a good recovery under the treatment of tincture of the muriate of iron. On inquiry, I ascertained that the drains were in good order, but the back-windows overlooked a large grass field, which had been recently "top-dressed," and the smell coming from it was most offensive. The disease appeared partially in the neighbourhood, and scarlatina became very general.

I was called a short time ago to see a family occupying a baronial residence in Argyllshire, situated on the banks of a loch, into which the sewage flowed. Seven of the family were first attacked with scarlatina, and, on recovery from it, two were seized with diphtheria of a severe character—the one case was followed by paralysis, the other by abscesses implicating the glands of the neck. The lady of the house escaped the fever, but she became affected with diphtheria and was very nervous; the disease was checked, however, by the tincture of the muriate of iron. The whole family made a good recovery. On examination, I found that the modern part of the mansion communicated with the older portion by means of a long passage, from which, especially at night, there came an offensive smell.

I am persuaded that erysipelas is most frequently the result of exposure to impure air—and in this respect it resembles the other diseases I have referred to, in all of which there is obvious blood-poisoning. If this be so, it is clear that the treatment should consist of the means which is calculated to remove the poison most rapidly from the system, and counteract its effects without reducing the powers of life. With this view, after many years' experience, and considerable opportunities of judging, I confidently recommend the treatment with the muriated tincture of iron. I should not have thought it necessary to have repeated this opinion, having expressed it strongly in a previous paper, had I not observed in Professor Spence's recently published lectures, that he advocates the antiphlogistic treatment practised thirty years ago; at the same time, he not only under- rates the value of iron, but condemns it alto-

gether in some cases. In example of this he says, "When the disease assumes an acute character, and is accompanied with a quick, full pulse, or in erysipelas of the head, when there is a tendency to violent delirium iron should not be given." But the truth is, that, had he watched its effects, and understood its influence on the constitution, he would have discovered that the cases referred to are those in which the treatment by the tincture of muriate of iron is the most immediately beneficial. In proof of this I cannot do better than quote the case of the nurse referred to in the former extract from Dr. Begbie's work. He informs us that she was a fine healthy woman approaching the age of fifty. "She was seized with symptoms of acute illness, commencing with violent headache, flushed face, severe pain in the lumbar region, great febrile excitement, and high delirium. With these symptoms the erysipelatous rash appeared on the right ear, and quickly spread over the same side of the face in the course of the night. The aspect of the case at this early stage indicated a severe and lengthened illness; indeed, I do not remember to have seen for a long time one which, from the constitutional disturbance and local symptoms, threatened a more unfavourable issue." "Seeing that the case was of a severe character, I hesitated placing reliance on iron alone, and directed the abstraction of twelve ounces of blood from the nape of the neck by cupping, and the administration of a full dose of castor-oil. These means being premised, and having observed that the urine passed in the course of the day—the second of the illness—was of a red colour, and scanty in quantity, that it was loaded with biliary matter, and presented, under the microscope, numerous blood-corpuscles, and many crystals of the triple phosphates, I ordered the muriated tincture in manner recommended by Mr. Bell, in doses of twenty drops every two hours, continued through the night and day. At the end of twenty-four hours there was a marked remission in all the more prominent symptoms; the erysipelas was arrested; the headache subdued; the delirium overcome; the pulse reduced in frequency and force; the skin covered with a gentle moisture, and bereft of its burning heat; the pain in the back removed; and the urine rendered more copious, and freed from most of the blood and bile of the previous day. The remedy was continued for twenty-four hours longer; and without experiencing any unpleasant effects, the patient was convalescent at the end of the fourth day, presenting a striking contrast to the case of her fellow-servant, who, with symptoms of a less severe character, suffered from illness during many weeks." Dr. George W. Balfour, who is not a likely person to take an erroneous impression on any subject, says, "I have treated all my cases, upwards of twenty years, with iron, and have had no cause to regret my doing

so. On the contrary, erysipelas is one of the few diseases for which I now believe we have a certain and unfailing remedy, and this whether it is infantile or adult, idiopathic or traumatic."

The remedy must be given in full quantity and frequency which I have recommended in order to produce its beneficial effect in the severer forms of the disease; and if any one expects to accomplish this desirable object by the use of the tincture of the perchloride of iron, either in erysipelas or any of the other diseases referred to in this paper, they will be disappointed, as such is the result of my experience both in erysipelas and diphtheria. Two illustrations may here suffice. I hold that a material difference exists between the effects of the two so-called similar preparations of iron—viz., the muriate and perchloride—both of which I have fully tested, and could give many instances of their marked therapeutic difference. In regard to erysipelas, I was attending a lady who was severely affected by it after a tedious attack of rheumatic fever. I ordered her to have thirty drops of the tincture of the muriate of iron every two hours; but to my great disappointment I found that she went on day after day without any improvement. I then asked to see the medicine she was taking, when I discovered it was the tincture of the perchloride, sent by mistake by the chemist. I immediately changed the medicine for the tincture of the muriate of iron and in a few days the disease disappeared.

I was requested a short time ago to attend a young lady suffering under a severe attack of diphtheria. She had been taking for some time the tincture of the perchloride of iron, with little apparent benefit, as her pulse was 110, and her throat covered with diphtheritic membrane. She was put on the tincture of the muriate of iron, and had her throat swabbed with a solution of Condy's fluid several times a day. The membranous deposit rapidly disappeared, and the pulse in two days fell to 80, and in the course of a week she was quite convalescent.

In conclusion, I have again to state, in regard to the treatment of erysipelas with the tincture of muriate of iron, that I have the most perfect reliance on it; and that when it has failed, the fault has been not in the remedy, but in the mode of administering it. I hold that no one is justified in condemning it until they have given it as recommended, and found it fail in effecting a cure in uncomplicated cases. Of course, I admit there are cases complicated with other virulent diseases, in which no human aid can be of any avail; or it may not have been had recourse to until after the system has fairly succumbed to the disease. Such cases must form an exception. In short, if any remedy is entitled to be called a specific, it is so; at all events, as much so as quinine is in ague.—*Edinburgh Medical Journal*, August, 1876, p. 98.

ON THE OPEN AIR TREATMENT OF CONSUMPTION

By DR. JAMES BLAKE, San Francisco, California.

An article in the *British Medical Journal* for October 24th, 1874, recalls an intention I have had for some time of sending a communication on the open air treatment of consumption, a plan I have advocated for many years, both on the grounds to which Dr. Marcet alludes as to its being a septicæmia, and also on account of the advantages which such a treatment offers for improving the digestive organs. In a paper published in the *San Francisco Medical and Surgical Journal* in 1860, I pointed out the advantages to be derived to the digestive functions by living in the open air; but looking at the septicæmic element of the disease, no other treatment, it appears to me, can so effectually combat it as living in the open air, the only condition in which a patient with diseased lungs can avoid re-breathing the poisoned air he has expired, laden with the germs for intensifying the putrefactive processes going on in his lungs. There is undoubtedly a germ of truth in the theory of Dr. MacCormac of Belfast, that the chief cause of consumption is re-breathed air, but not, I think, from its being overcharged with carbon, as he supposes, but because it is loaded with a much more subtle poison in the putrefactive germs which it contains. Some twelve years ago, I published some cases in the *American Journal of Medical Science*, showing how many cases of consumption had been arrested, and some cured, by what I called the open air treatment of the disease; and a longer experience has convinced me that this method offers the best chance for our consumptive patients. But, before the profession can be induced to employ it, I am aware that an accumulated mass of prejudice has to be removed, not only amongst physicians, but more particularly amongst the public, as regards the evil of exposure and living in the open air. The idea of advising a patient in the third stage of consumption, suffering from cough and night-sweats, to sleep in the open air, is a proposition which in England, I am aware, would be considered not only as dangerous, but almost as a sign of lunacy. Even here, where it is no very uncommon thing for persons to sleep out of doors, and where the dewless nights of our mountain ranges during our rainless summers render any covering but blankets and a tree quite superfluous, I often met with objections to following such a course. And yet I am convinced that it is the best method that we possess for arresting and curing consumption. In England possibly, and in fact in most parts of Europe, the occasional summer rains and the absence of dry mountain ranges, with their pine-covered ridges, offer obstacles to such a treatment being fully carried out; but the principle once recognised, a great deal may be done even there towards employing it. In order, if possi-

ble, to remove to a certain extent this prejudice, I would state that I have never in a single instance seen any ill effects result from it. I have sent out patients to sleep in the open air who were so far reduced that they could not even ride on horseback, but had to be conveyed in a carriage. The difficulties and annoyances of living in the open air are, I believe, entirely in the imagination. The most agreeable holidays I have ever spent have been whilst camping out with a sensible party of ladies as well as gentlemen, and never have we broken up camp to return to houses without regret by all the members of the party. When ladies are in the party, it is better to have a tent, the front of which must always be fully open at night. During the winter months, the southern part of the State about San Diego or Santa Barbara is the most desirable place for patients, as there are seldom more than a dozen rainy days during the year; but in the summer the coast range of mountains north of San Francisco offers by far the most congenial climate, far better than that of the Sierras, owing to the greater equability of the temperature. From the middle of May to the end of October, as a general thing, living in the open air can be enjoyed without any fear of rain. As the summer heat increases the higher mountains up to 4,000 or 5,000 feet, ensure an agreeable climate, where the thermometer never rises above 85 deg. (this, in the dry air of the mountains, is about the same, as far as our sensations are concerned, as 70 deg. in England), and never descends below 55 deg., ranging generally from 60 deg. to 75 deg. during the twenty-four hours. As a general thing, at a height above 1,500 feet, the camp can be made in pine-woods, and I believe that there is something antiseptic in the exhalations of these trees; certain it is that they impart a most agreeable odour to the air, particularly in warm weather. As for the cost, the expense is slight, as there are no hotel bills to pay; the journey across the continent is now rendered so easy, an invalid can generally support it without inconvenience, and in fact improve during the trip. In the cold weather the trip can be made by the steamer Colon, and thence to San Diego by the Pacific Mail Company's ships.—*British Med. Journal*, June 3, 1876, p. 687.

ON THE TREATMENT OF DIPHTHERIA.

By Sir JOHN ROSE CORMACK, Physician to the Hertford British Hospital of Paris.

The treatment of diphtheria requires to be considerably varied in its details, according to the nature of each case, the constitutional peculiarities of the patient, and the type of the epidemic. There are, however, certain general principles of treatment which must always be acted upon, and the infringement of which may lead to disastrous consequences.

Even a limited experience will teach an observant practitioner not to expect curative results in diphtheria from particular medicines or vaunted formularies of treatment, but to strive to support life by the measures best suited to each case, rationally using medicines as exigencies and opportunities arise, and not in a routine fashion. The first Begbie of Edinburgh, and, I may say, the best physicians who have given their views on this subject to the profession, express themselves to that effect. Begbie, whose skill as a therapist stood very high, concludes the summary of his able and instructive essay on "Diphtheria and its Sequels" in the following sentence:—"Lastly, as we have no specific remedy for diphtheria, the disease and its sequels must be treated on the general principles which regulate our practice in fever, in inflammation, and in nervous disorders of asthenic character."

The treatment of diphtheria may be conveniently discussed under the three heads of *general*, *local*, and that which pertains to the *paralytic affections of convalescence*.

The *general treatment* has to be considered in respect to *atmosphere*, *food*, and *medicines*.

The temperature of the room ought to vary as little as possible, a temperature of about 17° Cent. (63° F.) being maintained. The patient ought to be screened from currents of air, care being taken that free ventilation is not interfered with, and that the air is moistened by a regulated escape of steam from a suitably-contrived kettle. The arrangement adopted in the case of E. G. answered very well. Nothing can be better for the purpose required than Dr. Pretty's kettle, which is thus described by Sir William Jenner:—"This is a tin kettle with a small aperture at the top, closed by a screw instead of a common lid. From the front of the kettle project two spouts of about three feet in length. One spout springs from the upper part of the kettle, and passes forward in a straight line; the other spout springs from near the bottom of the kettle, and passes obliquely upwards. The lower spout ends in a spoon-like projection, just under the slightly curved-down open mouth of the upper spout. The steam passes out of the upper spout, and the condensed vapour drops into the little spoon, and is returned by the lower spout to the bottom of the kettle." A thermometer and a steaming-kettle are indispensable in the chamber of the diphtheritic patient. The maintenance of good ventilation, combined with a moist, warm, and equal temperature, is a paramount necessity when tracheotomy has been performed; and in all cases, and in all stages of the disease, in which there exists diphtheritic sore-throat, it is important, as a means of moderating the paroxysms of glotto-laryngeal spasm, that the patient inhale air which is soft, warm, and equable in temperature. Even in the rare cases in which the throat affection is absent,

it is the duty of the physician to take the measures best calculated to secure in the sick-room such an atmosphere as has been described; for in such cases the disease may at any moment manifest itself in the air-passages.

The support of life by stimulants and aliments—the feeding of the patient—is universally stated to be an essential element in the treatment of a case of diphtheria. Neither alimentation nor tracheotomy were *curative* agents in the case of E. G.; nor in any case of diphtheria can they be so regarded. Nevertheless, they were the principal means by which E. G. was saved from death; and by them, indeed, is recovery chiefly rendered possible in all such cases. Success in alirientation and success in tracheotomy are only means by which we gain time, by which we support life for a period, we hope, of sufficient duration to enable the disease to run its natural course, guided and aided by us whenever therapeutic opportunities arise.

It is necessary to insist emphatically on the fact, that, in the treatment of diphtheria, there is nothing approaching alirientation in importance. Unfortunately, however, this knowledge is too often of little importance to physicians and patients in bad cases, for in such there is almost no power of assimilation, and there is likewise extreme difficulty in inducing the patient to take food, or, having taken it, for him to retain it. Diphtheria-stricken patients generally loathe food, and children often struggle violently against attempts to feed them. When food is swallowed it is often rejected immediately. The difficulties in the way of feeding are always great, and sometimes they are insuperable; but, they must be resolutely faced. The alirientation of diphtheritic patients requires great skill, tact, and, I might almost say, inventive power on the part of the medical attendant, assisted by the co-operation of a well-disciplined, conscientious and obedient nurse. Each case has dietetic difficulties which are its own, and must be met from hour to hour as they arise.

While, therefore, it would be tedious to go into details, a short statement of the practical principles which require to be carried out may be briefly stated. Pounded raw beef in very small quantities, moistened with the juice of under-done roast beef, is generally the best basis of alirientation. It will seldom be expedient to administer more of this preparation than one teaspoonful at a time, and not nearly so much if there be nausea. With the raw beef and other aliments, a little *pepsina porci* ought to be given from time to time. I have seen the difficulties of alirientation much diminished by the judicious addition of pepsine to the food. Together with the raw beef and other aliments, we must give stimulants liberally: the exact quantity must be determined by the exigencies of each case, and will be subject to frequent varia-

tions. As a general rule, however, it is well to remember that brandy is well borne in diphtheria by patient of all ages. Its effects require to be carefully observed in young subjects; but it may be accepted as a fact, that children bear brandy, sherry, and all spirituous stimulants exceedingly well. Proofs of the accuracy of this statement constantly present themselves in practice, both in respect to diphtheria and other diseases.

“When,” says Sir William Jenner, “the disease begins with marked feebleness of pulse, dusky redness of throat, and extreme sense of general weakness, wine in full quantities is required at an early period. From six to eight ounces of sherry or port for an adult, and as good a diet as the patient can take, must be given from the first. In the course of the disease much larger quantities of wine, or a proportionate quantity of brandy, may have to be given. Of course, the quantity of stimulant must be regulated by the age and habits of the patient, as well as by the character and the stage of the disease; but remember that, as a rule, young children bear and take with advantage, in diseases of depression, much larger quantities of stimulants than you would probably suppose. A child of three years of age, now under treatment for diphtheria at the Children’s Hospital, is taking, with apparent advantage, from one to two drachms of brandy every hour, i.e., from three to five ounces of brandy in twenty-four hours.”

When we have nausea and vomiting to contend with, we must chiefly trust to brandy and pounded raw beef (duly pepsinated) as the dietetic articles most fitted for keeping up life. When the stomach will bear more bulky food, it is always useful to give a variety of suitable aliments, among which may be mentioned milk, egg-flip, and panada. As soon as it can be borne, cod-liver oil ought to be given. It has a wonderful power in preventing and restoring the waste of tissues.

There is very little if any scope for the administration of medicines when a bad case of diphtheria is at its worst. Till the fury of the disease has spent itself, it is wise to give as little medicine as possible, and never to give any at all unless the indication be clear and positive. When there is nausea and vomiting we may harmlessly and hopefully give oxalate of cerium or creasote, but we must avoid, on account of its depressing influence on the heart, the other great remedy for irritability of the stomach—hydrocyanic acid. As soon as the patient can digest it, iron in some form ought to be given in very small doses. It may be very usefully combined with a syrup of the phosphate of lime. Ferruginous medicines are urgently demanded from the very dawn of convalescence by the anæmic aspect of the patients, while cod-liver oil and phosphate of lime are equally called for

by their emaciated appearance. Building-up treatment, alimentary and medicinal, is most useful in preventing or moderating the paralytic affections incident to advanced convalescence.

There is no specific medicine for diphtheria—there is no way of *curing* that disease; but there are many medicines and many measures of signal benefit to diphtheria-stricken patients, by the skilful use of which they are often enabled to recover.

With the use of general means, it is sometimes proper in laryngo-tracheal manifestations of diphtheria to combine local treatment to dislodge or dissolve the false membrane. The treatment by emetics adopted for the former purpose is local in its intention, but general in its action on the patient.

Emetics in diphtheria are seldom of much use; but still there are many cases in which it is right to try to effect dislodgement of the false membrane. With that object, an emetic was administered to Miss P., on Sunday, 2nd January (p. 505); and for the same purpose emetics were given to E. G.

The emetics which ought to be selected are those which do not depress, and which act quickly. Perhaps sulphate of zinc is the most, and tartar emetic the least, suitable. The latter is not only unsuitable, but it is pretty certain to prove dangerous by its depressing action. Speaking of tartar emetic, as an emetic in diphtheria, Trousseau says:—"The selection of the particular emetic to be employed is not a matter of indifference. Tartar emetic, so lauded by some, seems to me to be the most dangerous of all emetics." "It causes extreme prostration and accelerates death." Trousseau's teaching, unfortunately, is not universally followed in this matter, as I have had several occasions to observe. The following instance is confirmatory of Trousseau's statement. All the circumstances being remarkable, are accurately remembered by me.

On a summer morning in 1875, I accompanied my friend Dr. Borthwick, of Dum^{on}ries, on a visit to one of the great hospitals of Paris. During a long drive to the hospital, the chief subject of our conversation was the pathology and treatment of diphtheria in relation to emetics and tracheotomy in the laryngo-tracheal manifestation of the disease. We knew nothing of the cases we were to see. On our arrival we entered a medical ward where a physician was examining the first case of diphtheria, we were told, which had been received into the hospital during the current year. The sick man, aged about forty, was sitting half-dressed on his bed, a circumstance explained by his having just returned from the privy situated outside the ward. We ascertained that he had been about forty hours in the hospital, but did not learn the previous duration of his illness. Since admission, he had had low diet and no stimulants. He

spoke in a husky whisper. He had had no stridulous breathing. From his replies to questions, we ascertained that he chiefly complained of dyspnoea, diarrhoea, loathing of food and debility. The visible part of the interior of the throat was covered with false membrane; and the physician announced, after applying the stethoscope, that he heard semi-detached false membrane flapping in the trachea. The treatment prescribed consisted in a continuance of the antiphlogistic regimen, and the exhibition at short intervals of tartar emetic in doses of ten centigrammes. I do not know whether it was the prescriber's object to obtain the dynamic action of the drug, or whether its emetic effects were looked to as a means of dislodging the false membrane from the air passages. Before we left the ward, the patient went to and from the privy with tottering steps. The exertion induced extreme vital depression, unaccompanied by stridulous breathing or increase of dyspnoea. Dr. Borthwick and I agreed that the only chance—and that a very small chance—of recovery which this man possessed consisted in his being kept in the horizontal position, and liberally dosed with brandy, an emetic of sulphate of zinc being delayed till a rally should occur, and tracheotomy being resorted to only if it should be demanded by threatening asphyxia. We were equally agreed that under the combined depressing influences of diphtheria and antimony, it was not likely that the patient could survive more than a few hours. Our evil prognosis was correct, for the patient died in a state of collapse six hours after our visit.

The tartar-emetic treatment of diphtheria has been generally regarded as one of the wildest heresies in the practice of medicine, though some able men of large experience think and teach otherwise.

In 1859, during the prevalence of a severe epidemic of diphtheria at Paris, three cases were reported as having been treated successfully by Bouchut at the Sainte-Eugénie Hospital by large doses of tartar emetic. The three patients took the medicine according to the following formula:—Tartar-emetic, 75 centigrammes; syrup of poppies, 15 grammes; and gum-water, 100 grammes; mix; half a teaspoonful to be taken every hour. The quantity intended to be taken in the day was from 50 centigrammes to a gramme—that is, from $7\frac{1}{2}$ grains troy to $14\frac{1}{2}$ grains troy of the tartar emetic. There were two objects in view—the excitation of vomiting as a means of getting rid of the false membrane, and the mastery of the disease by the successive dynamic shocks. It is stated that the nurse, observing one of the three patients in a suffocative paroxysm from the presence of laryngeal false membrane, gave a double dose of the mixture with the addition of some tepid water. Forthwith, the child in a violent vomitive effort ejected a tubular membrane, two inches in

length. The incident is interesting, but it does not tend to justify the administration of tartar emetic in laryngo-tracheal diphtheria. Would it not have been equally efficacious, and much safer, to have administered an emetic dose of sulphate of zinc, followed by some brandy to sustain the feeble heart during the vomitive crisis?

Tracheotomy, through the opposition of the family, was too long delayed in the case of E. G. A similar difficulty often occurs in private practice. Each case has to be decided for its own merits; and the physician in charge must be in constant readiness with his instruments and appliances to perform tracheotomy at very short notice. In the majority of cases the actual crisis is so sudden as to leave no time to divide responsibility with a colleague. The patient must not therefore (if the attendant can help it) be put into jeopardy by waiting for a formal consultation, or till a surgeon can be found to admit oxygen to the craven lungs. On the other hand, if time permit, there is no emergency in medical practice in which it is more for the advantage of patient and practitioner that there should be a collation of opinions and a division of responsibility.

In the diphtheritic semi-asphyxiated child, tracheotomy is an operation requiring great care and a good light. There is no surgical difficulty, but the operator, if unaccustomed to use the knife, must be cautious. Nay, even an expert requires to proceed slowly, for children with turgid necks have been lost from hurried tracheotomy, performed with imperfect light, by good operators. The difficulty and danger of tracheotomy in diphtheritic children arise from the turgidity of the veins of the neck, caused by the state of semi-asphyxia. The sudden gush of venous blood which occurred in the case of E. G. illustrates this remark, and confirms its correctness.

The patient ought to be placed on his back on a table, with a narrow solid cushion so adjusted under the neck as to project and stretch the trachea. A quart bottle wrapped up in wadding, or in anything at hand, answers admirably. This being arranged, the operator, with the least possible delay—for the patient's position is a very trying one—makes an incision through the skin, in the mesial line, from the cricoid cartilage nearly to the sternum. The tissues ought then to be divided layer by layer, the gorged veins being carefully avoided, and the muscles and vessels being held to each side by the fingers of the left hand of the operator, or by two blunt hooks held by an assistant. When the trachea has been laid bare, a small incision is made in it, close to the cricoid cartilage, with a sharp-pointed bistoury, after which a probe-pointed bistoury is employed to complete the necessary opening. By means of the tracheotomy-dilator, or if that be not at hand,

by means of a common dressing forceps, the opening is dilated, and the operation completed by introducing a double canula, and then fastening it behind by tapes. As in the case of E. G. it may be necessary to draw out detached portions of false membrane before the canula can be introduced. In such cases, it is well to keep the opening dilated till the false membrane and mucosity have been got rid of by coughing or otherwise. The inner canula in some cases requires to be frequently removed and cleansed from obstruction. For such emergencies and for such occurrences as the grave accident which befell E. G., on the third night after the operation, a reliable attendant must be ready to intervene at a moment's notice.

Another method of performing tracheotomy in diphtheria has recently been made by Sainte Germain, of the Hôpital des Enfants Malades of Paris. The object in view is to avoid hemorrhage from cutting the engorged veins. A red-hot probe-pointed bistoury is the instrument employed. It is used in the first instance to burn through the skin, intervening tissues, and crico-thyroid membrane; and then by using the cutting edge, to divide the cricoid cartilage, and a few rings of the trachea. With the aid of Lalonde's dilator, the canula is then introduced.

Tracheotomy, like venesection, and the use of the stomach-pump, is a mechanical service, which every one who assumes the responsibilities of medical practice ought to be able to render to his patient at once, whenever the emergency arises. The question is not whether tracheotomy belongs to medicine or to surgery—that is of secondary importance—but whether every man ought not to save life when he can do so, by the use of his hand. It is expedient that some should specially cultivate medicine, and others specially cultivate surgery; but it is a great scandal when a physician in certain emergencies refuses to use the surgical knife, and when a surgeon in certain emergencies refuses to write a medical prescription.

Local applications intended to destroy, detach, or dissolve the false membrane in laryngo-tracheal diphtheria are in favour with many. Fortunately they are not so much relied on now as they were by Trousseau and those who wrote by his inspiration. This change of opinion is, as yet, more apparent in the conversation and current practice of French physicians than in their published works. It is now generally admitted that Trousseau attached an undue, and even a dangerous, importance to destroying by caustics the false membrane as soon as it appeared on the pharynx, and on any part of the visible mucous membrane of the throat. His statement that the destruction of the false membrane not only prevented the spread of the local mischief but even arrested the career of the general disease itself, is now denied by most French clinicians of repute. This change of opinion is for-

tunately likely to be permanent, for it has been clearly shown, and is now generally believed, that caustics, strong acidulated washes, and active chemical solvents, act mischievously by irritating the mucous membrane, and so exciting increased exudation of cacoplastic lymph.

Gargles, washes, and various other applications, if not of an irritating character, may be used with impunity, and sometimes with benefit. Some of them tend to promote separation of the false membrane without producing any rawness or hurtful irritation of the subjacent mucous membrane. The advantage derived from them is, we must remember, frequently temporary, and more apparent than real. So long as the disease is in the exudation stage, layer after layer of false membrane will continue to be deposited on the surface of the mucous membrane; and the rapidity with which this reproduction proceeds may more than counterbalance the benefit derived from the separation of the upper strata. It follows, therefore, that the only topical applications to be used are those which do not irritate.

Among the safe and more useful topical applications are glycerine and borax (of the *Br. Ph.*), lime-water, a very diluted solution of hydrochloric acid in distilled water, and a solution of one drachm of neutral sulphate of soda in eight ounces of water.

Moist warmth applied externally to the throat generally gives much comfort, and is in no way injurious. It greatly mitigates the pain arising from tumefaction of the cervical glands.—*Edinburgh Medical Journal*, June, 1876.

THE TREATMENT OF BOILS AND CARBUNCLES.

By DR. PETER EADE, Physician to the Norfolk and Norwich Hospital.

I think the usual treatment of boils and carbuncles, as set forth in works of medicine and surgery, may be briefly described as this. If seen within the first day or two of its appearance, we are told either to divide the pimple across, or to apply nitrate of silver to its apex; after this, we are told to poultice it, to apply cold compresses, or merely to use pressure; and, when the mass has grown large and tense, either to let it run its natural course, or to divide some portion, or the whole, of it by incisions or by caustic, and again to poultice, and so on.

In 1866, the late Mr. Startin wrote in the columns of the *Journal of this Association* that he regarded "boils and carbuncles as having frequently or constantly parasitic origin"—this opinion being grounded upon the success of his special practice, upon the fact of his having once or twice found cryptogamic vegetation in them like that of sycosis, and upon the observed fact that boils are occasionally propagated to other parts of an affected person, or even to other individuals by very close contact. But he said:

"My opinion of the parasitic nature of these complaints is chiefly influenced by the rapidly curative effect of the application of parasiticides to the apex of the boil or carbuncle." These parasiticides were various forms of caustic, such as iodine, nitrate of silver, caustic potash, chloride of zinc, blistering liquids and mineral acids, but the one which, for various reasons, he preferred to all others was the acid nitrate of mercury.

In my own practice, I have found these views of the parasitic nature of those diseases, as shown by the efficiency of destructive caustics, to be fully confirmed; but I believe that I have greatly improved upon Mr. Startin's practice, and that I have discovered that in carbolic acid we have an agent which is not only more safe, more manageable, and more universally applicable, but one which seems to be specifically destructive to the life and progress of both boils and carbuncles.

Boils are not uncommon, but carbuncles only occur in one's practice occasionally; but I may say that, in the several examples of carbuncle which have occurred to me recently, and in all the cases of boil, the carbolic acid has never failed—when properly and sufficiently applied—to arrest their growth and to abort them at once, if in an early stage; and to check their spread and prevent further extension in a later stage.

I believe it to be general experience that the pimple in which a boil begins its life and career may be destroyed by any common caustic, if thoroughly applied. I venture to assert also that a carbuncle, even when very considerably advanced and of very considerable size, may in like manner be destroyed by the free application of carbolic acid to its centre and other parts.

The essentials for its proper action, so far as my experience has gone, appear to be these:

1. The acid must be applied in *strong* solution (four or five parts of acid to one of glycerine is the strength I employ).

2. It must be brought into contact with the diseased tissue, for it appears to exert no influence on or through the unbroken skin. To this end, if sufficient opening do not exist when the case is first seen, a proper one must be fearlessly made in the very centre of the disease by some appropriate caustic, and, perhaps, the acid nitrate of mercury effects this better and with less discomfort than any other.

3. The acid solution must be occasionally reapplied to, and into, the hole thus formed, or those already existing, and I have found it a good plan to keep a piece of lint wet with a weaker solution constantly over the sore.

Take the following example, which has occurred to me within the last two or three weeks.

A lady, aged 40, showed me a boil on the left buttock, of six days' duration. It was circular with a diameter of four inches; was red and angry looking; tender, hard at its base, and

rapidly increasing. To the prominent point in its centre I freely applied acid nitrate of mercury over a space about one-third of an inch in diameter. Next morning, I removed the scab which had formed, and freely passed the strong carbolic solution into the little opening formed in the mass as well as I could with a quill pen charged with the liquid (and I may say that I find this a very convenient instrument for the purpose). At this time the swelling had increased considerably in size, was more tender and inflamed and painful, and was threatening to be a very formidable case of the disease. Now, mark the effect of the treatment. The acid was freely applied twice more, during the day, and the very next morning on my visit, it presented the appearance of having suddenly collapsed. It had shrunk greatly in size, was flabby, and far less painful, and its vitality was destroyed. In four or five days, nothing remained but a little hardness about its base, and it rapidly got quite well. No core was ever discharged, and no pus appeared after the first application of the carbolic acid.

Now, to what does such a history as this point (and I could give several such histories did time permit)? I think it says, as plainly as possible, that whatever the predisposing causes of boil or carbuncle may be, the disease itself is essentially a local one: that it is a disease parasitic in the skin or its sebaceous glands, and that it begins with a central portion or stem, from and round which, as a root, the rest of the mass grows and extends. The spreading fungus-circles common in our meadows, and known as fairy rings, give us an excellent illustration of the type of growth; I think that the singular and constant effect of the destruction of the central portion in the way I describe, proves (as Mr. Startin thought) that which it is so difficult to demonstrate with the microscope.

I do not say that, when a huge carbuncle with its enormous growth into, and infiltration of surrounding cellular tissue has taken place, carbolic acid or anything else can be relied on absolutely and at once to stop its progress. It will probably then to some extent run through the stages of its life history, but I believe that this is entirely because destruction of its centre is no longer the destruction of the life of the circumference, and because of the difficulty or impossibility of bringing the acid into contact with enough of the diseased mass. But even in a case or two of very large carbuncles, which I have seen for the first time in their later stages, and where the acid has been freely and assiduously passed into every hole which existed, I have been greatly satisfied with the apparent effect of the acid; and certain it is that, *wherever it touches* diseased tissue, all sloughing and suppuration at once there cease, no further extension of disease takes place, and a more striking change from dirty slough to

florid granulation occurs in the course of a very few hours. So much have I been struck with this, that I propose when the opportunity of a large developed carbuncle offers, to inject a watery solution of the acid into various parts of the diseased mass, in the hope of thus completely destroying it even at this stage.

To sum up, the doctrines implied and acted upon in this paper are:

1. That boils and carbuncles are not mere inflammations and sloughings of cellular tissue, but specific diseases.
2. That they are parasitic, and, as such, endowed with a definite life and history.
3. That, in their early stages, they may be infallibly destroyed and aborted by destruction of their central stem or root; and that, even after this stage has passed, they may generally be destroyed, and in all cases, at the very least, greatly modified, by the free application of carbolic acid.
4. That, to produce this result, the acid must be freely introduced into the central portion of the disease, and also into any other part where an opening exists or is formed artificially.

Until lately I had been in the habit of using a much weaker solution of the carbolic acid in oil or glycerine than I have spoken of above; but I now find that, when used in small quantities, the stronger solution is quite safe and very slightly irritating, whilst its destructive power is, of course, much greater. Where, therefore, it is only intended to insert a small quantity into the mass, I advise that it should be of full strength; but where it is to be used more freely, or over a large surface, I only employ it much more dilute. The only constitutional effect I have ever witnessed from its free external application is the well-known blackening of the urine, and this has never appeared to produce the slightest evil result.—*British Medical Journal*, July 1, 1876, p. 5.

SUBNITRATE OF BISMUTH IN THE INTESTINAL HEMORRHAGES OF TYPHOID FEVER.

In the intestinal hemorrhages which supervene in the course of typhoid fever, Dr. Martineau (*Lyon Médical*, August 6, 1876, from *Gazette des Hôpitaux*) recommends, on account of its perfect harmlessness, subnitrate of bismuth. He administers this remedy every half-hour, until the cessation of the hemorrhage, in powders containing one gramme (fifteen grains). This method is derived from the practice of Monneret, who, considering that bismuth acted specially as a mechanical agent, so to speak, covering the inflamed and ulcerated mucous surfaces, always employed it in preference to giving half doses. In five patients whom Dr. Martineau had thus treated the result has been well and rapidly attained.—*London Med. Record*.

SCARLATINAL ALBUMINURIA.

This distressing sequela of scarlet fever too often frustrates the hopes inspired by convalescence. In the report from Berks county, Pennsylvania, in the State Medical Society *Transactions*, we read, "many children succumbed to it." In the same volume Dr. S. D. Bell, of Butler county, tells us that he has given up the old treatment by bitartrate of potassa, spirits of nitre, acetate of potash, etc., as unsatisfactory compared with the decoction of scopolia. This, he states, yielded "invariably the most flattering results." He used it in the form of decoction, made by boiling half an ounce of the tops in a pint and a half of water down to one pint. Of this a tablespoonful to a wineglassful was given every four or six hours, according to the age and severity of the symptoms.

ACTION OF CHLORAL ON THE RECTUM.

It would appear that chloral is one of those agents which act with nearly as much energy when introduced in the rectum as when taken into the stomach. In a case of puerperal convulsions to which we had been called in consultation, a solution of bromide of potassium with hydrate of chloral, which could not be swallowed by the patient, was injected into the rectum, with the effect of allaying spasm promptly and decidedly. It was repeated in the same case with excellent results. Since that time other trials of chloral as an enema have confirmed its value in this mode of administration. The quantity of thirty grains in two or three ounces of water will generally be sufficient for a single injection.—*Pacific Med. Jour.*

THE STATUE TO THE LATE SIR JAMES SIMPSON,
BART., M.D.

Concerning this statue the *British Medical Journal*, Oct. 28th, says:

"The bronze statue of the late Sir James Simpson is now in the artist's hands, and stands ready to be removed to the site fixed upon for it, viz., in the East Princes Street Gardens, as soon as the pedestal on which it is to stand shall be erected. The casting produced by Messrs. Masefield, of Chelsea, turns out to be one of unusual excellence. The statue represents the subject in the sitting posture, and is eight feet in height, corresponding to a standing height of twelve feet; the pedestal is to be ten or eleven feet high. Sir James is represented in academic robes, sitting erect with the face turned towards the left shoulder, in the attitude of a man earnestly enforcing his convictions, the while right hand supports one side of a large book which rests on the knees, the left is engaged in turning over the leaves. In modelling the massive head, Mr. Brodie had the busts executed by himself from the life, and he has been very successful in reproducing both the features and

the tenacious expression of the original. This part of the casting is peculiarly effective in the sharpness and precision with which it gives every touch of the graving tool; and the same may be said of the hand, in which the sculptor has vividly realized another characteristic feature."

EXTRACTION OF FOREIGN BODIES FROM THE EAR.

Mr. Geo. P. Field refers to the case of a little girl, æt. 6, who presented herself with a black glass bead the size of a large pea in her left ear. Previously, however, several attempts had been made to extract the bead; but, unfortunately, the mischief was only increased, the bead having been pushed in still deeper, and firmly imbedded, the result of subsequent inflammation. The ear was syringed gently, and any further attempt at removal was postponed, as there was a good deal of inflammation for a few days. She was, however, laid up with chicken-pox for two months; and when she came again to the hospital all inflammatory signs had disappeared, but the bead could easily be distinguished with the speculum, deeply seated and firmly fixed. She was put under chloroform, and an attempt was made to remove it by means of glue attached to the end of a piece of stick. This failed altogether. She was, therefore, placed on her side, with the affected ear downwards, and the syringe used from below; and, after a little trouble, the bead dropped out. This is a case that one is likely to meet with almost every day. A great deal more harm than good is often done by the use of instruments; but by the following method no injury can be caused. Place the patient under chloroform, with the ear affected downwards, and syringe from below. Pull the auricle backwards and upwards (by this means the external auditory meatus is made into a straight tube), and apply the nozzle of the syringe to the upper wall of the passage. The water is then gently forced behind the obstruction; the foreign body is loosened, and its own weight will cause it to fall out of the ear.—*British Medical Journal.*

BARBER-SURGEONS IN BRITTANY.

In a work on surgeons and barbers in Brittany, M. Closmadu has recorded some curious facts of practice in the sixteenth century. Venesection was abundantly practised; to such an extent that the *échevins* were obliged to lay down regulations for the disposal of the blood, and to prohibit its being exposed to the view of passers or thrown into the gutter. At Rheims, the barbers were prohibited from keeping pigs—why, is not stated. The fee for venesection was ten *sols* (fivepence); for extracting a tooth, five *sols*. M. de Montconys, travelling in Brittany in 1645, learned from a young surgeon, among other secrets, that the injection of warm fox's blood into the bladder was a sovereign means for dissolving calculus; and that to cure quartan fever, a white herring suspended by

the middle, with the head downward, should be applied to the spine. A little later, the clergy strongly recommended a collection of domestic remedies made by Madame Fouquet, among which was an ointment of horse-dung and fresh hog's lard for dressing bruises; the dung being that of a black horse which had been at grass for fifteen days during the month of May. The monks were in the habit of prescribing such remedies as the following: For quinsy, apply a poultice made of the faces of a healthy boy who has been fed three days on rabbit with well-baked bread, containing little leaven and salt. In cases of difficult micturition, apply to the penis, or near it, a poultice or liniment of fleas, caught in beds, in oil of sweet almonds; or, what is better, introduce two or three bed-bugs or fleas into the urethra.—*The British Medical Journal*, February 10, 1877.

CARBOLIC ACID IN SIMPLE ANGINA, DIPHTHERIA, AND CROUP.

According to Lemaire, carbolic acid water ($\frac{1}{2}$ or 1 part to 100), used as a gargle, is an excellent means for combating simple anginas. The sensibility of the mucous membrane and the other abnormal symptoms are promptly extinguished under the influence of this remedy. In the more severe throat affections, such as diphtheria and croup, the same agent is recommended as a gargle ($\frac{1}{2}$ to 100), as a cauterizer (2 to 100), as an inhalation, and as a drink. Declat tried the same remedy with good result internally, externally, and as a hypodermic injection, using in the last method 5 grammes of a solution of the strength of 1 part to 100. The observations reveal that the false membranes separate, and the subjacent mucous membrane is modified by the treatment.

The carbolic acid does not act as a cauterant, for dilution produces beneficial action; and it is not demonstrated that it exerts any chemical action on the false membranes, as some have thought. It appears most reasonable that it acts as a parasiticide, destroying the proto-organisms which constitute the fundamental part of the false membranes, and which exist in the circulatory system, since the local alterations are no more than the expression of zymotic influence.—*O Correio Medico*, Lisbon, 1876, p. 274.

CHLORAL AND CHLORATE OF POTASH IN DIPHTHERIA.

Dr. Ciattaglia strongly recommends the local application three or four times a day of a mixture of chloral (one drachm) and glycerine (five drachms). Since he has employed this he has met with remarkable success. He gives internally chlorate of potash in doses of two and a half to four drachms for children and five drachms for adults per diem, dissolved in thirty-

five drachms of water. He had already derived great advantage from the chlorate, but since he has combined with it the local use of chloral his success has been much greater. The development of the diphtheritic patches is arrested, and the disgusting odor of the disease disappears, if not at the first, at the second application. The chloral, also, is much more manageable in glycerine, the burning sensation being less, while it is longer retained in contact with the parts than when dissolved in water. It is also harmless even when clumsily applied.—*Presse Med. Belge*, August 13.

SIROP MAGISTRAL.

This syrup, which is mentioned in D'Espine and Picot's *Manuel des Maladies de l'Enfance*, is much used at Geneva as a tonic for emaciated anæmic children. The formula for it is as follows: Cream of Tartar, 500 parts; Iron Filings, 96 do.; Cinamon, 16 do.; Sugar, 2000 do.; Orange-peel, Rhubarb, each 32 do.; White Wine, a sufficiency. A spoonful night and morning. A. SHEWEN, M.D.—*The London Medical Record*, February 15, 1877.

CANCER: INJECTION OF BROMINE.

We saw, also, with Dr. W. Williams, a woman, aged 50, whose cervix uteri had been amputated for epithelial cancer, by Mr. Baker Brown, eight years before. The actual cautery had been applied later by Dr. Routh, and, later still, Dr. W. Williams had injected bromine at three sittings, after which the whole of the affected part came away, and complete healing took place. The parts were now quite sound. There was apparently only an inch of uterus left. The solution used is one part of bromine to three of rectified spirits. This develops heat, and should be prepared before being carried for use. From five to ten minims are injected into the tissues by means of a long syringe with platinum nozzle and india-rubber piston. It is desirable to remember that it may destroy the sense of smell in the operator; but this loss may be prevented by alkalined cotton-wool placed in the nostrils.—*British Medical Journal*.

PICRIC ACID FOR SORE NIPPLES.

Picric acid has not hitherto been much used in medicine. Dr. Charrier, in the *Courier Médical*, recommends it in sore nipples. After washing well with tepid water, he paints, by means of a camel-hair brush, the chapped surface with a solution of picrid acid 4 grs. or $4\frac{1}{2}$ grs. to 1 oz. This is repeated every day. Besides which he directs the nipple to be held after each time of suckling in a glass filled with a weaker solution—2 grs. to 1 oz.—of picric acid. ☞

A REMARKABLE OCCURRENCE.

In the current number of the *Veterinary Journal*, a correspondent, an army veterinary surgeon, states that some men of the Native Infantry Regiment stationed at Cawnpore went out shooting, and in the course of the day came upon an antelope doe, which they immediately shot dead, and carried home. On opening the animal for the purpose of preparing it for the pot, they released a strong healthy youngster from the uterus, washed it, and induced it to suck milk from a bottle. "This little fellow is still living and thriving well under the care of the band-master of the regiment, by whom the above was related to me. Now, the peculiarity of the case is this,—that the time from when the mother was shot until the young one was released could not possibly have been less than twenty-five minutes. I have taken every care to verify the story, and can find not the least exaggeration in it."—*Med. Press and Circular*.

and a drop of nitric acid on the other. By inclining the glass, the two will mix, and after the fumes which result from the mixture have passed away, it will be readily seen if there is any albumen precipitated.

In the first experiment care must be taken not to boil the urine too rapidly, or it will be evaporated. In the second, the resulting precipitate is rendered more apparent if the under surface of the glass has been previously coated with Brunswick black or some other dark substance. A few of these covers can be carried in an ordinary pocket dressing-case, and afford a ready means of testing urine at the patient's house.

PERSONAL.

Dr. Joseph Carson, an eminent physician of Philadelphia, died December 30th, aged sixty-eight years. He was for many years the Professor of Materia Medica in the University of Pennsylvania, which position he resigned last spring in consequence of impaired health. For many years he was Vice-President of the Pennsylvania Historical Society, and was identified with many scientific associations.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D. L.R.C.P., LOND.

SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editor, Drawer 356, Postoffice, Montreal.

MONTREAL, MARCH, 1877.

This month we send out bills to some of our subscribers who have not paid their annual subscriptions. Prompt attention to these reminders will be a favor to us, and obviate any repetition of the act of presenting a bill a second time, which we assure our readers is as disagreeable to us as to them.

TESTING THE URINE FOR ALBUMEN.

Dr. W. H. Kesteven recommends the following method, in the *Lancet*:—

Take a thin glass microscopical cover (about one inch square is the best size); on this place a drop or two of the urine to be tested; then, with a pair of ordinary dressing forceps, hold the cover over the flame of a candle. At the same time the under surface of the glass will be blacked by the smoke, and the urine will be boiled. If there is any albumen, the black under surface renders the white precipitate evident.

Urine may also be tested cold with nitric acid with the same apparatus. A drop or two of the urine should be placed slightly on one side of the centre of the surface of the glass,

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

March 9th 1877.

DR. PERRIGO read a paper on "Three Cases of Placenta Prævia."

First case.—Woman's health previously good, sudden onset of hæmorrhage while at a meal. Dr. Perrigo was immediately called. He found that the hæmorrhage had ceased; os dilated to size of a 50 cent piece and soft; placenta adherent by right half; pains firm and rapid. At end of a half hour, during which time no hæmorrhage had occurred, he examined again and found the os twice its size at the previous examination; ruptured the membranes, after which labor was rapidly completed without any further interference or any further hæmorrhage. Dr. Perrigo drew attention in this case to the sudden onset of the hæmorrhage with the commencement of labor, and to the rapid and successful issue, without any operative interference.

Second Case.—Hæmorrhage three weeks before full term. After slight hæmorrhage through the day, the doctor was called. He felt a soft mass through the walls of the uterus, and

thought that he had a case of placenta prævia; applied plugs; removed them next morning; no hæmorrhage. On the following morning found the plugs saturated with blood, and the os dilated to the size of 20 cents; a gush of blood with a pain; gave ergot and brandy; os dilated quickly; delivered by forceps. Delivery was followed by a gush of blood, but the uterus contracted well. Child dead.

Third Case.—A very desperate case—Found woman in a state of syncope; no radial pulse, and all the signs of fearful anæmia. Gave brandy and milk freely; the bleeding recurred when the patient recovered from the swoon. Os the size of 50 cents; placenta centrally attached; perforated the placenta with his hand, and turned; did not deliver immediately after turning; uterus contracted and no hæmorrhage followed. The patient recovered after six weeks in bed.

Dr. Trenholme objected to detaching the placenta in the second case after the hæmorrhage had ceased. Dr. Barnes only detached the placenta in order to arrest hæmorrhage. Objected to tearing through the placenta in the last case in which the placenta was centrally attached; might open frightful sources of hæmorrhage. Dr. Barnes teaches to puncture with an instrument in order to allow the fluid to escape and the uterus to contract. Also spoke of the possible benefit in desperate cases, of the injection of milk into the veins. Thought that turning was the proper operative measure for the following reasons: (1) It enables you to find the exact position of the placenta; (2) the arm forms a plug, and (3) the legs of the foetus form a plug.

Dr. Hingston thought there was no invariable rule to follow. Rarely was perforation of the placenta warranted; it was a hazardous practice. The speaker rather favored non-interference.

Dr. Alloway suggested the use of the bipolar method of version where it was possible, in order to avoid the shock of the introduction of the arm into the uterus.

Dr. F. W. Campbell, drew attention to the fact that in Dr. Perrigo's cases the hæmorrhage did not set in till labor was commencing, which was not usual—perhaps explained by the recent observations of Dr. Isaac E. Taylor, of New York, that the os did not always dilate at all till labor actually commenced, and that the cer-

vix was not obliterated in pregnancy. Asked why Dr. Perrigo did not deliver immediately after turning in the last case. Objected to Dr. Hingston's remark that cases of this kind would generally do well without interference; mortality was 1 in 3.

Dr. Trenholme again rose, and spoke with reference to dilatation of the os before labor. In multiparæ there is a dilatation of the os at eighth month or last two weeks of gestation. Has been able frequently to recognize the position of the head three weeks before labor. Never so in primiparæ, and therefore hæmorrhage was more likely in multiparæ.

Dr. Perrigo replied, he did not complete delivery immediately in his last case, because he would rather subject his patient to two slight shocks, than one great one in her condition; she had fainted while his hand was in the uterus. In the second case he detached the placenta as a precautionary measure against the recurrence of hæmorrhage, and considered that practice advisable.

Dr. Osler exhibited several interesting pathological specimens:—A large abdominal tumor cancerous in nature, sent to him by Dr. Malloch, of Hamilton. The tumor weighed 40 lbs.; there were secondary deposits in the liver and lungs; it had originated in the retro-peritoneal glands. An example of Lobstein's retro-peritoneal cancer, a very rare disease. Also cancerous disease of the 7th cervical and 1st dorsal vertebrae, and of some ribs with secondary deposits in the liver and brain, from a man who had died in the General Hospital, of chronic phthisis; one lung of same subject with cavities and numerous fibrous bands. Specimen of perforation of lung from a case of phthisis, which had proved fatal in the General Hospital from pneumothorax, interesting from the fact that the perforation communicated with a small cavity of the size of a pea, while there were numerous large cavities with thin walls in the same lung. From the same case (a young girl of 21 years) a dermoid tumor of right ovary, of the size of a large hens egg, containing in its sac true dermoid structure with hairs growing from it, and covered with sebaceous matter, and bone and other structures in the centre. Also a specimen of acute necrosis of the lower end of the tibia, from a periosteal abscess, from a patient who had died of pyæmia.