organisms and blood-poisoning. In these latter cases, it does appear as if alcohol enabled the patient to linger on long enough for the cacozyms to exhaust their pabulum, and the disease to die out. This happens in very severe cases of enthetic disease. The alcohol itself may assist to dwarf and destroy the organisms when they were of the reproductive kind, such as are found in true blood-poisoning. In these cases there is danger, because we are not always able to tell when it is time to drop the remedy, and we have better remedies than alcohol for that purpose.

I have on more than one occasion, when called in to consultation, had reason to believe that the coma had been caused by excess of stimulant, and not by the disease. I have withdrawn the stimulant, and found that the coma has departed, and the previous delirium has not recurred.

It requires a very studious consideration of all the alliances of the case by daily observation with instruments of precision, if one is not to do serious mischief by over stimulation. It is no advantage to save a patient from death in typhoid fever, and then to have him sink from after-consequences which have been set up by the remedy which has been used.

One of my correspondents expresses his regret that I should "support the notion that the mere fact of alcohol retarding nitrogenous metabolism is, *per se*, an evil, since the same effect is produced by carbo-hydrate in excess, and with like results of deposition of fat." I have already dealt with this objection, by showing that the use of alcohol tends to fatty degeneration, not to getting fat. I should also wish to point out that when persons who take daily doses of alcohol do become fat, it is because the use of alcohol, by whipping up the gastric glands to increased action, enables the drinker to consume more food than he requires. There is no evidence of any kind to show that alcohol, *per se*, would produce fat, except in very exceptional conditions indeed, in which it is possible that a minute portion of the exhibited alcohol may be changed into glycol, which some chemists think to be one of the saccharine group; but, after all, even the alliances of glycol are with the virulent poison class, rather than with the glucoses.

There are certain conditions in which it is absolutely necessary to relieve the heart by the rapid action of a diffusible stimulant, as when the internal organs are loaded, the vessels in the skin contracted and all but empty. The physiological action of alcohol rapidly comes into play, and thus a weak organ may be saved. This is possible when such an one has been suddenly chilled by immersion in the water, or by fright. Life may be saved and strains on internal organs taken off by a good dose of brandy. But such are the dangers which are attendant upon a good dose, that if a patient be already recovering, I would much prefer the outward application of warmth and friction to the disturbing influence of the strong drink. I am asked sometimes, Surely you do not object to the administration of wine and spirits to those who have a weak heart? The answer is, assuredly I do, if the weak heart is due to excess of fat in its periphery. I would take off the load of hydrocarbon by a diminution of supply and the administration of oxidising agents; I would not give an agent which takes the place of the latter; whilst, if it be due to fatty degeneration, we are only hastening the end. We may make our patients the merrier by our daily dose, but assuredly we are making life shorter also. To whip a tired horse may enable you to catch a train; but, if the action be indulged in daily, and you do not let your horse have the necessary rest to enable it to throw off its tired condition, you will find one day that your horse will not respond to the whip at all. The usual action of alcohol is to quicken the heart's beat, to cause it to make more contractions in a given time, and to shorten the time for its rest. It is in the time of rest between the beats, that there is repair. If alcohol does quicken a weak heart, it is actual poison to it, though it may for a time make the patient feel more comfortable by diminishing the signs of danger. The beats of the heart require the interval of time to be lengthened between each, if you mean to get rid of the weakness which results from fat or any kind of degeneration. To quicken its action, must diminish the power of restoration which the organ might possibly possess if its beats were slower, not quickened. Alcohol, therefore, to be beneficial in such cases must slow the pulse, not quicken it, and then it may act, as Dr. Radcliffe styles it, as a tonic. I have very seldom seen this result.

What may we understand by the term physiological saturation, beyond which it is not prudent to go? It seems to me that the use of alcohol appears to be safe within certain limits, only because we are unable to appreciate its effects. The millions of blood-corpuscles must have a certain percentage altered before any perceptible effect is produced, such as may approach to physiological saturation. A certain number of liver-cells may be

rendered fatty, and the patient appear in perfect health; a few of the brain-cells may be altered, or some of the glomeruli in the kidney changed, and yet the subject may appear perfectly well; but at length the stage of saturation is reached, beyond which the subject becomes either diseased in some of his organs from fatty degeneration, or he is a drunkard in consequence of the change in his nervous system. The limit is passed. Then physiological saturation is reached, and our antagonists agree with us that total abstinence is the only remedy. Those who believe in the tonic power of alcohol would take their patients close to the edge of the precipice, and then warn them of their danger; too often when it is too late. My own feeling is, that it is our duty to prevent the commencement of the so-called physiological saturation; and to do this, I feel bound to advise my patients that alcohol in all its forms is a powerful medicine for good, in a few instances, in acute disease of a certain type, in which it is requisite to paralyse the vaso-motor system in the periphery of the body, so as to relieve pressure in the internal organs; that it is especially powerful for good to the total abstainer; but that it becomes a dangerous remedy to those who may be upon the borderland of "physiological saturation," and ought never to be given in any cases in which there is any approach to atheroma, or fatty degeneration of any kind. I cannot believe in its real benefit in want of digestive power, except in rare cases in which a temporary whip may be of service. For any one to trust to it, and not to take measures to remove the real cause of his indigestion, is trusting to a broken reed, which will run into his side in due time, and cause him serious hurt. When alcohol is prescribed, it ought to be in a measured quantity, and not regulated by so many glasses of wine or beer as the patient may choose. They vary in their strength at every wine-shop. It is most careless practice to trust to chance as to the quantity of spirit which may be present; and for that very reason, it is quite impossible to prescribe it in its ordinary form with that precision which it is the duty of men of science to use, when they are solving a scientific problem, which the cure of disease always ought to be.

WARM DOUCHING OF THE HEAD AND NECK IN THE INSOMNIA OF CONTINUED OR ERUPTIVE FEVERS.

By ARTHUR J. CAMPBELL, M.B., WEST BOLDON, NEWCASTLE-ON-TYNE.

IN the BRITISH MEDICAL JOURNAL for December 6th, there is an article on "The Cold Bath in Enteric Fever." In this, Dr. Alexander Collie condemns the practice of lowering the temperature by such means: first, because the temperature is not the primary disease; secondly, because as good results are probably obtained without its use; and, thirdly, because, in severe cases, the bath is contraindicated by the cardiac weakness.

While I agree entirely as to the unsuitableness of such a proceeding as plunging a timid disease-weakened patient into cold water, I wish to point out what I consider a most pleasant and soothing method of employing a douche, especially indicated in sleeplessness, and not contraindicated by cardiac debility; the proceeding is neither novel, difficult, nor disagreeable, and is productive of the best results if efficiently performed.

The patient's shoulders having been wrapped in a sheet or blanket, and his ears plugged with cotton-wool, his head is supported over the edge of the bed (a suitable vessel being placed underneath to receive the water), whilst a gentle stream of warm water from the rose-spout of an ordinary watering-pot is directed over the head and neck. The watering-pot should be held at least eighteen inches above the level of the patient's head, and the douching may be kept up for three or four minutes; the head should then be lightly dried with a towel, and the patient lifted into his ordinary position in bed. As a rule, sleep is produced within a short time.

In 1879, I was called one night to a severe case of scarlatina in a girl aged 13 years. Her temperature was high, the pulse very quick and feeble, the tongue brown; sordes had collected about the mouth; and there was jactitation. The rash was very dark-coloured, and her condition was rendered the more serious by sleeplessness, continuing for four days. On the day following my first visit, I administered the warm douche to her head and neck, the hair having previously been shortened. Within an hour after the process, she fell into a refreshing sleep, which lasted for about twelve hours, during which time she was disturbed two or three times for the purpose of ad-

ministering food. The patient was soon convalescent, and I attributed her recovery to the timely relief given by the douche.

I could give other cases illustrating the usefulness of the warm douche in certain head-cases, but do not wish to encroach on valuable space.

OBSTETRIC MEMORANDA.

THE POTENTIAL CAPACITY OF THE FEMALE BLADDER.

THE obstetric memorandum by Dr. Neale, in the JOURNAL of January 10th, recalls to mind a case which occurred in my practice in South Wales some years ago.

One Sunday evening, I was asked by a man to see his wife, who was living about a mile from my house. He told me she was in great pain, and had not passed any water for five days; that she was under the "works-doctor," living three miles away, who said that she was suffering from suppression of urine. Finding that she was five months advanced in pregnancy, and was also suffering from inveterate constipation, I suspected a mechanical obstruction, and put a gum-elastic catheter in my pocket. On seeing the patient, I found her with an immensely distended abdomen, in which fluid was readily detected on palpation, and at once passed the instrument, and gradually relieved her of 180 fluid ounces (nine imperial pints) of clear urine. On making a vaginal examination, I found a retroversion of the gravid uterus, firmly impacted between the vagina and rectum, and causing obstruction to the neck of the bladder.

I wrote a note for the medical attendant, relating the condition of things, and suggesting the rectification of the malposition. I did not see the patient again; but the medical man subsequently told me that she died a week later from cystitis, a sequel which I did not surprise me.

W. E. GREEN.

CONCEPTION HINDERING MENSTRUATION.

ON Christmas Day, I attended E. T., aged 14 on the 6th of last August. I was told that she had been in labour for more than twelve hours. On examination, I found the os uteri fully dilated, the head high up, and, though the pains were strong, no progress towards descent taking place. I accordingly, with some little difficulty, put on the forceps, and delivered at once. Mother and child have both made uninterrupted progress towards convalescence, the mother suckling her baby.

The special point of interest in the case lies in the fact that the girl has never menstruated. Connection, which she tells me took place on several separate occasions, evidently resulted in conception at the eve of the first menstrual flow.

Tidy, in his *Legal Medicine*, vol. ii, gives two or three instances of a similar thing taking place, but the comparative rarity of such an occurrence seems to justify me in putting the case on record.

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CLINICAL MEMORANDA.

PICRIC ACID: ITS OCCASIONAL ACTION WITH URATES.

THE fact that picric acid is so reliable and convenient a test both for albumen and for sugar in the urine, renders it the more desirable that any unusual reaction should be noticed.

A few days ago, I was examining the urine of a child suffering from diphtheritic paralysis, and, on applying the picric acid test in the usual manner, obtained an immediate and decided turbidity where the fluids intermingled, which I at once regarded as albuminous; placing the test-tube on one side, I now tried the cold nitric acid test, with a negative result, which somewhat surprised me, the picric acid precipitate having been very marked. On re-examining the latter, however, I found it breaking up and subsiding, apparently crystalline in character; the application of heat dissolved it. On being reprecipitated and examined under the microscope, I found it to consist entirely of very large and beautiful dumb-bell crystals (each half of the dumb-bell really composed of acicular crystals grouped in radiating manner), resembling artificially prepared specimens of urate of potassium. It is, of course, quite common to see granular particles of urates settling at the bottom of the test-tube, after urine has stood some minutes, when picric acid has been employed, but I had never before seen an immediate turbidity so exactly resembling an albuminous one, although I have constantly employed the test since it

came into use. On referring to Dr. George Johnson's paper of December 8th, 1883, I see that he mentions it as of very rare occurrence; and I only venture here to notice the fact, with a view of pointing out the necessity of always applying heat to the precipitate; the mere fact of its being so very seldom required might lead to carelessness on this point; it removes at once, however, every source of error, distinguishing between the albuminous precipitate and that which might possibly occur from urates, or the presence of quinine and peptones in the urine.

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TOXICOLOGICAL MEMORANDA.

SIX DRACHMS OF CHLORODYNE TAKEN IN ERROR: RECOVERY.

AS cases of poisoning by so-called "patent" medicines are of public interest, perhaps the following may be worthy of publication.

On December 9th, 1884, I was sent for hurriedly, at 6.45 P.M., to visit a young gentleman who had taken about six drachms of chlorodyne, not knowing it to be poisonous. He had purchased a bottle of the preparation, price two shillings and ninepence, and, finding that three or four ordinary doses gave no relief to his neuralgia, had poured out what remained in the bottle, and taken it in one draught. On seeing him a quarter of an hour afterwards, he was somewhat drowsy, but quite able to give an account of what he had done. The pulse was feeble; the hands cold; the pupils widely dilated. As there was no inability to swallow, sixty grains of zinc-sulphate, dissolved in warm water, were immediately given, and, shortly afterwards, some mustard and water. As neither of these emetics produced any effect, the fauces were freely irritated with a feather, this process at once causing vomiting, which was repeated until the stomach had been well washed out, copious draughts of warm water being administered in the intervals. Some strong coffee was subsequently given, and the patient was kept walking about until all drowsiness had passed off. He had a good night's rest, and was quite well on the next day.

The chlorodyne was taken almost directly after a full meal; and to this circumstance, as well as to the speedy employment of remedies, may, I think, be attributed the successful result.

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THERAPEUTIC MEMORANDA.

HYDROCHLORATE OF CUCAINE IN PRURITUS ANI.

NEARLY four weeks since I was consulted by a middle-aged gentleman of very careworn appearance, who had for years suffered from this complaint. From the first, a good night's rest had been a thing quite unknown to him, his sleep having consisted of snatches of an hour or so at a time, out of which brief respites the intense irritation and pricking in the anus would cause him to start, and to lie awake for hours in a state of the keenest misery.

Finding, on examination, nothing beyond a slight thickening of the skin-folds from scratching to account for the disease, I ordered a twenty per cent. solution of hydrochlorate of cucaine with five per cent. of glycerine, to be applied in the following manner. Lying on his back, the patient was to force down and extrude as much mucous membrane as possible, and this part, as well as the skin surrounding the anus over a surface of about one inch and a half radius, was first to be thoroughly washed with warm water, and afterwards painted with the solution three times at intervals of ten minutes, the part being allowed to dry somewhat after the third application before moving from the recumbent position. As the result of this treatment, the patient slept quietly for seven hours.

This method had been persevered with night and morning for more than a week, without any return of the distressing symptom, when circumstances occurred which caused the remedy to be neglected for two days, whereupon the irritation recommenced with its former severity. The treatment was then resumed, and relief was once more obtained, and a continuance of the process during the last fortnight has produced the most satisfactory results.

It is too soon yet to speak of cure, as, of course, the mischief may return on discontinuing the treatment; but, at any rate, the freedom from torture is daily giving the patient strength to meet such an eventuality. Meanwhile, and without accepting the patient's extra-