bed. Muscular power in the upper extremities was low. Both legs and thighs were greatly wasted, as will appear from the measurements to be given below. Faradic contractility was very low; in the arms, it was normal. The chest expanded less than three-quarters of an inch on forced inspiration. Sensibility in all its forms, including electro-sensibility, was greatly lowered in the lower extremities and abdominal parietes. It required a sharp thrust of the compasses to make their points felt; but the power of discriminating between heat and cold remained. Anaesthesia existed also in the upper extremities, but in a minor degree. The temperature in the axilla was normal. All her functions were performed naturally, excepting that menstruation had ceased since her illness began.

During the first six weeks of her residence, her symptoms showed no sign of improvement. The anaesthesia became more profound; muscular power still further lessened in the upper extremities, so that she could not retain anything long in her grasp without tremor in her arm and the certainty of dropping what she was holding. The deltoids also participated, and she could not raise her arms above the horizontal. Atrophy of the muscles increased, and the palmar eminences wasted, disclosing the metacarpal bone in the thenar eminences. Cutaneous sensibility was decidedly deadened in the fingers. She continued to make great complaint of darting pain in the blade-bones, shooting from shoulder to shoulder; and had constant paroxysms of pain starting from the fingers and darting to the wrists, leaving the hands numb. In addition, her feet and legs were numb, and she was kept awake by pains in the knees and ankles and up the leg-bones. She never presented any evidence of the exalted reflex irritability nor of the spasmodic movements of meningitis; nor was there any pain in the vertebral region. She was remarkably intolerant of the impression of cold, and "could bear any quantity of clothes". Her appetite continued defective, and her spirits depressed. Her bowels were costive.

The treatment had consisted of blisters on the spinal region; the full administration of iodide of potassium for some time, combined with the liquid extract of ergot; afterwards, of bichloride in small doses, which affected her gums. She was then placed on tincture of belladonna up to doses of twelve minims. At the end of the sixth week, the progress of the disease seemed checked. Improvement first showed itself by commencing return of sensation in the lower extremities. The various pains lessened in severity and became less frequent. Then the patient became able to grasp more steadily. Contemporaneously with these signs of amendment, the lower extremities became stronger; and in the tenth week of her residence in the hospital she was able to creep along, but it was not until the end of the third month that she could cross the ward on foot. With improvement in other respects, a marked change occurred in her general demeanour; she became cheerful, and her voice in talking lost its feebleness. The following observations on the girth of her limbs will illustrate the course of the malady through the muscular atrophy by which it was attended. The patient was admitted on February 17th. (The measurement of the thigh was taken seven inches above the patella.)

March 10th. Right thigh, $14\frac{1}{2}$ inches; left thigh, 15 inches; right calf, 9 inches; left calf, $9\frac{1}{2}$ inches.

April 16th. Right thigh, $12\frac{3}{4}$ inches; left thigh, $13\frac{1}{2}$ inches; right calf, 8 inches; left calf, $8\frac{1}{2}$ inches.

May 31st. Right thigh, 16 inches; left thigh, $16\frac{1}{2}$ inches; right calf, $9\frac{1}{4}$ inches; left calf, $9\frac{1}{2}$ inches.

August 2nd. Right thigh, $17\frac{1}{2}$ inches; left thigh, 18 inches; right calf, $9\frac{3}{4}$ inches; left calf, $10\frac{1}{4}$ inches.

March 10th. Expansion of chest by forced inspiration, under three-quarters of an inch.

May 26th. Expansion of chest by forced inspiration, over an inch and a half.

During the course of her recovery, a fresh symptom appeared: paroxysms of profuse perspiration, soaking her clothes and pouring off her face. Some of these paroxysms lasted through a day or a night; otherwise for two or three hours. The nurse stated that she became scarlet all over when the perspiration occurred. The temperature of the axilla was from 98 to 97 deg. during the perspiration. On one occasion, the temperature of the hand was tested, and found to be 92 deg. As stated, she was admitted on February 17th. She left the hospital cured on September 1st.

CASE III.—The history of this case is, unfortunately, very defective, as my colleague in attendance had not seen the patient during the first part of her illness, and she had been removed from her own home. The patient had been addicted to habits of intemperance for an unknown period. She had certainly taken spirits; probably other liquids also. She had been compelled to keep her bed for a month on account of loss of power in the lower extremities. For how long power had been

failing, was not known. There was also an account of severe pain in the legs, and especially in the feet. At the time of my visit, her state of mental disorder prevented her from giving any clear account of her symptoms; but the nurse stated that she complained much of "chilblains" in her feet, and that she begged her to take off her boots, as they hurt her feet. There was also some indefinite account of pain in the lower part of the abdomen. When I saw her, there were much mental feebleness and some delusion; but, when her attention was roused in some special manner, she answered rationally for the moment, and obeyed directions with a fair degree of promptitude. When left to herself, she talked without reference to the reality of her position, and often tried to get out of bed. She had only sufficient power in her lower extremities to enable her to drag them about in bed. Muscular atrophy in the lower limbs was extreme. Sensation was so much impaired that a pin could be plunged deeply in the substance of the leg without eliciting any evidence of being felt. Her upper extremities were probably unaffected. She retained full control over the sphincters. Three days before my visit, her temperature was 104 deg.; it had declined to 100 deg. Her face had a healthy aspect; her appetite was good. There was no enlargement of the liver, and no albumen in the urine. The organs within the chest were healthy.

Two months after my visit, my friend writes me word that the patient remained with little change for five weeks. Her pulse averaged 110. Morning temperature was 100 deg.; evening, 102 deg. The temperature is now normal in the morning; 100 deg. in the evening. She was very talkative and excited, and manifested various delusions; she then became depressed, frequently crying. Her mind now is in a more healthy condition, though she never asks about her home. Sensation is restored in her legs; but atrophy of the muscles remains, and the flexor muscles appear to be acquiring preponderating power. She lies with her knees bent, and has pain in them. Her appetite has remained good; she has taken food well. Her bowels have been very costive. She has full power over her evacuations.

POSTSCRIPT.—I have had the opportunity of again seeing the patient the subject of Case I (page 121), three months after the last note of his case was taken. The condition of the limb has undergone no further change; but the young man now possesses some power of independent movement in the different segments of the lower extremity whilst walking. This statement confirms Meyer's observation that the disease in the adult disables less than in children.

PHYSICIANS' PRESCRIPTIONS AND THE SALE OF POISONS ACT.

By JULIUS ALTHAUS, M.D.,

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AT the last meeting of the Clinical Society of London, I drew attention to a case of chorea, in which the patient had done himself a great deal of harm, and apparently killed himself, by the immoderate use of the hydrate of chloral, for which I had given him a single prescription in 1870, and which he continued, contrary to my advice, to take incessantly until his death in 1874. This case suggests an important question, which must, at various times, have occupied the professional mind; viz., whether the custom obtaining in this country, that patients may, at their own discretion and for years, procure from dispensing chemists any amount of certain powerful medicines, such as strychnia, opium, arsenic, etc., for which only one prescription has been given, is a proper one. In the case to which I allude, the patient had been in the habit of ordering wholesale supplies of the chloral mixture at a time from a leading West-End establishment, and showed me, at one of my visits, to my horror, a box full of twelve bottles of this medicine, which he had just received.

This custom, which has recently grown to excessive dimensions, is evidently a reprehensible one, inasmuch as it renders it impossible for the physician to regulate the dose which he wishes to be taken, and likewise opens the door to crime. Opium-eating and chloral-drinking may thus be readily induced, and a medicine which was intended to benefit becomes a curse to the patient. Again, secret poisoning, which remains undetected and unpunished, would appear to be by no means uncommon in this country, where the provisions of the Sale of Poisons Act are rendered to a great extent nugatory by the unlimited use which may be made of a formula, not only by the patient to whom it was originally given, but also by his friends, for whom, as is well known, the chemist frequently copies a prescription. Thus the would-be poisoner may go with a receipt for a small quantity of laudanum to twenty different chemists, put the supplies received together, and give the dose

to his intended victim. That this is no mere fancy picture, will be readily conceded by men of large experience in the profession.

I have taken some trouble to ascertain the custom which obtains in other countries in this respect, and have found that, with the only exception of Germany and Austria, complete liberty of the subject seems to exist everywhere as far as this point is concerned. In Holland and Belgium, there is no law restricting the chemist from again and again compounding the same prescription. Dr. J. Morel of Ghent tells me that, in Brussels and some other large towns, chemists' shops are hardly anything but magazines for the sale of patent medicines, which anybody may procure without trouble. In the smaller towns, there is less of this; but the doctors are in the habit of telling their patients to keep their prescriptions and have them made up again and again, if found useful. The consequence is, that the patient gains confidence in a prescription, instead of in the judgment of the doctor; he labels certain receipts as good for certain diseases or symptoms; thinks himself, after a time, perfectly able to judge as to what ought to be given in a special case, and, when a friend is ill, takes some formula out of his pocketbook and advises him to have it made up.

In Spain, patients can do exactly as they like. Dr. Jelly of Madrid says, however, that less mischief is done by Spaniards in this respect than by others, because Spanish doctors generally only write prescriptions for some simple infusions, or a small quantity of some advertised French nostrum, just sufficient to last for a day, and order their patients to come back to the doctor every day until they are cured. Dr. Jelly has, however, found many English travellers come to him with a pocketful of receipts from London physicians, and a plan of treatment laid down sufficient to last them a lifetime, and he thinks that the profession are as much to blame in the matter as the patients.

As for Italy, Dr. Erhardt of Rome tells me that prescriptions may be made up again and again without the sanction of the prescriber; but it sometimes occurs that, if they be very frequently asked for, the chemist will refuse to make them up again without receiving the doctor's assent. Italians, like Spaniards, take, as a rule, very little medicine, and Italian practitioners rarely order potent medicines, so that less harm is done in that country in this respect than elsewhere.

Dr. Frank of Cannes says that the same evil of which I complain here exists in France, and that he has no doubt that a great deal of harm is often done in consequence.

I understand from Dr. Marion Sims that, in the United States, there is absolute liberty to procure any quantities of powerful drugs from a single receipt, given perhaps many years ago, and that to his personal knowledge patients have ruined their health by the indiscriminate use of medicines at a time when these were no longer required.

Legislation on this subject exists, as far as I have been able to ascertain, only in Germany and Austria. Professor Westphal of Berlin says that, in Prussia, as long ago as 1801, a law was enacted requiring that all prescriptions written by either physicians or surgeons, and containing drastic purgatives, emetics, remedies used for bringing on menstruation and increasing urinary secretion, opiates and similar powerful drugs, shall, after having once been made up again, not be prepared a second time without the knowledge and approval of the prescriber, in consideration that such means may have been beneficial at the time they were ordered, while they might cause the death of a person at another time. As some inconvenience has arisen from too frequent applications to the prescriber for renewal, it has become of late years the custom in Germany for the prescriber, in case he thinks renewal desirable, to add the word *reiteretur* at once, and he may add to this the words *bis*, *ter*, etc., at his discretion. Unless this appear on the prescription, no good chemist will renew an old formula; and, if he did so, he would be punishable.

Professor Benedict of Vienna states that, in the Austrian pharmacopœia, the more powerful medicines, more especially the narcotics, ergotine, etc., are marked with a cross, and that the chemist is legally bound to give no more than one supply for a prescription containing any such drugs. Some physicians add at once the word *repetatur* or *bis*, *ter*, etc., where they consider it proper. All prescriptions have to be stamped by the chemist who makes them up, and who is also bound to put down the price he has charged for the medicine. Opium-eaters endeavour in all possible ways to circumvent this law; but the chemist who supplies them to excess lays himself open to an action at common law, and, where real harm has been done, even to criminal proceedings. Professor Benedict has mentioned to me, as an instance of the conscientious manner in which chemists in Austria generally discharge their functions, that, quite recently, when a physician, suffering from a painful affection, prescribed large doses of hydrate of chloral for himself, the chemist sent word back to say that he must request a prescription written by another doctor, as the prescriber might, under the influence of pain, take poisonous doses.

In talking this matter over with eminent members of the profession in London, I have been met with the reply that England is a country of free trade; that, when the patient has once given a fee for a prescription, it belongs to him; and that, in endeavouring to bring about a change, we should lay ourselves open to the suspicion of wishing to multiply our fees. Such objections, however, seem to me utterly untenable. Ours is not a trade, but a profession; there can be no earthly objection to a patient continuing as long as he likes the use of compound rhubarb pills or of simple tonics and alteratives, which, even when taken in excess, can produce no serious damage. As soon, however, as poisons come into play, the matter assumes an entirely different aspect, not only with regard to the individual, but also to the community. It seems to me the duty of the state to carry out the principle of the Sale of Poisons Act, not simply in the letter, but in the spirit; and to this end a legal check must be placed upon the indiscriminate supply of medicinal poisons. The public, if fairly reasoned with, must understand that it would be absurd to charge us with mercenary motives in such matters; and I have never experienced the slightest difficulty in convincing intelligent laymen, before whom I have occasionally laid this subject, that the change which I advocate is really desirable and proper.

It will be for the profession to give such an expression of their opinion on this matter as to induce the Royal College of Physicians, or the General Medical Council, to take action upon it in the proper quarter.

NOTES ON A CASE OF EMPYEMA FOLLOWING PLEUROPNEUMONIA IN A CHILD, TREATED BY INCISION AND DRAINAGE-TUBE.

By WILLIAM CAIRNS WICKS, M.B.E.din.,

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E. J. M., A GIRL aged 7, came under observation on September 30th last, suffering from pleuropneumonia affecting the right side. She continued to progress satisfactorily till October 12th, when I found that she had passed a very restless night, and complained of pain in the affected side. On the 14th, a physical examination revealed the presence of an effusion in the right pleural cavity. On the 21st, as the fluid had accumulated in spite of ordinary treatment, I intimated the necessity for operative interference. The parents were not anxious that anything should be done, and it was with difficulty I got permission to operate on the following day if there should be no improvement. The right side measured nearly an inch and a half more than the left side. She had a distressing cough and great dyspnoea.

On the 22nd, I was called to see the child, as she was thought to be dying. She had had a "fainting fit", but was somewhat pallid when I arrived. The dyspnoea was urgent, and she was extremely weak. Some brandy was given, and I went for Mr. Angus, who kindly came to perform the necessary operation. The aspirator was used, the puncture being made in the seventh interspace in the infra-axillary region. About four ounces of thin inodorous pus escaped when the needle became occluded. A large one was carefully introduced; but in a short time the flow stopped, and it was completely blocked up by shreds of fibrine. Altogether about nine ounces of pus were evacuated; but, as the greater part still remained, we determined to make an incision and insert a drainage-tube.

On the 23rd, an incision was made, and about a pint of pus escaped, mingled with large shreds of fibrine. A drainage-tube was introduced, a pad of "tenax" applied, and over all a broad bandage.

October 24th. She had passed a good night. The discharge was free. The drainage-tube was removed, and the cavity syringed out with warm carbolic lotion (1 to 100); the punctures dressed as before.

October 25th. She was going on well. Pulse 100; temperature 98.8 deg.; respirations 34. Previously to the operation, the temperature was 103 deg.; and the pulse varied from 120 to 130. The discharge was considerably less.

October 28th. Pulse 90; respirations 32. The cavity was washed out daily with warm carbolic lotion (now 1 to 80), and the drainage-tube gradually shortened. The discharge had almost entirely ceased. The appetite, which before the operation was lost, had daily improved, and she was now taking chop, beef-tea, milk, and eggs.

November 1st. There was no discharge on the dressings. The drainage-tube escaped from the pleural cavity, and the opening closed up (ninth day). The percussion-note was good anteriorly, and respiratory murmur was heard distinctly as low down as the wound anteriorly and posteriorly. There was evident flattening of the right side.