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Original Communications.

Fibrinous Concretions in the Heart and large vessels. By BENSON BAKER, L.R.C.P., London, &c., late physician to the Star Street Dispensary, Paddington, London (late surgeon Allan S.S. "Polynesian.")

It is only of late years that the subject of this paper has received attention at the hands of the physician. The etiology and pathology of certain conditions of the blood which exist prior to the formation of fibrinous concretions, offer a field for suggestive and interesting inquiry. In the spirit of an inquirer I venture to record the facts I have observed, and to ask whether the interpretation of these facts, and the deductions drawn therefrom, may not be such as your reason and experience approve. Let the subject be discussed, some light will be let in, and eventually the truth will be elicited, or at least a new impulse will be given to further investigation.

The discovery of the circulation of the blood marked a grand epoch in medicine. Is the inquiry to stop here? Shall not that wonderful fluid, in its various and ever varying conditions be persistently interrogated? or, shall we fall back on the old Mosaic doctrine, the blood is the life, and seek in this organism all the initiatory changes that precede all other organic pathological changes. Does not the altered condition of the blood materially affect the force of the circulation, and does not a morbid condition of blood and altered force of circulation make up important factors in the change which special organs and the general system undergo? Examples of these pathological conditions are familiar to us in every day practice, *i. e.*, hypertrophy of the heart from kidney disease. Seeing therefore, the great importance attendant upon altered conditions of the blood, it behoves every student of medicine to interrogate the facts that come before him as to the antecedent condition, or the tendencies that precede such alterations in the organic constituents of the blood. In the variety of pathological appearances that are presented to us as the resultant of morbid changes, might it not be instructive and interesting to inquire what was the condition of the blood whilst these changes were being wrought out. Is there an excess of fibrin or a decrease in red blood corpuscles, or an increase in white corpuscles, or an increase in color. What part

do the blood salts play, are they in excess or deficient, or in an alcoholic form; if so, does this or any other condition of the blood affect its osmosis? Is the chemico-vital action of which the blood corpuscles are susceptible disturbed or destroyed? if so, what part does the nervous system or electrical conditions play in this change; or are there certain morbid products destroying the consistency of the blood and tending to fibrinous concretions in the vessels, thus sapping systemic life, and causing death.

Professor Huxley states that coagulation of the blood is a purely physico-chemical process dependent upon the properties of certain of the constituents of the plasma apart from the vitality of the fluid, if the blood plasma be prevented from coagulating by cold and greatly diluted, and a current of carbonic acid passed through it, will throw down a white powdery substance. If this substance be dissolved in a weak solution of common salt, or an extremely weak solution of potash or soda, it will coagulate and yield a clot of true, pure fibrin.

It would be absurd to suppose that a substance which has been precipitated from its solution and redissolved still remains alive. There are reasons for believing that this white substance consists of two constituents of very similar composition, which exist separately in living blood and the union of which is the cause of the act of coagulation. The reasons may be briefly stated thus: The pericardium and other serous cavities contain a clear fluid which has exuded from the blood vessels and contains the elements of the blood without the blood corpuscles. This fluid sometimes coagulates spontaneously as the blood plasma would do, but very often it shows no disposition to coagulate; when this is the case it may be made to coagulate and yield a true fibrinous clot, by adding to it a little blood serum.

Now, if serum of blood be largely diluted with water, and a current of carbonic acid gas be passed through it, a white powdery substance will be thrown down; this redissolved in a dilute saline or extremely alkaline solution will, when added to the pericardant fluid, produce even as good a clot as that obtained with the original serum. This white substance, named globulin, exists not only in serum, but in various tissues of the body. It possesses the same

chemical properties as the albuminous substance which enters so largely into the composition of red corpuscles. When treated with chemical re-agents, though they may produce no appreciable effect on its chemical composition, nevertheless it loses its peculiar power of causing serous fluids to coagulate. Hence, though there is great reason to believe that the fibroplastic globulin which exists in the serum does really come from the red corpuscles, the globulin which is obtained in large quantities from these bodies by the use of powerful re-agents has no coagulating effect on the pericardial or other serous fluids.

Though globulin is so unsusceptible of change when in solution, it may be dried at a low temperature and kept in the form of powder for many months without losing its coagulating power. This globulin added, under proper conditions, to serous effusion, is a coagulator of that effusion, giving rise to the development of fibrin in it. This it does by its interaction with a substance contained in the serous effusion, which can be extracted by itself, and then plays just the same part towards a solution of globulin as globulin does towards its solution. This substance, fibrinogen, is exceedingly like globulin, and may be thrown down from serous exudation by carbonic acid, just as globulin may be precipitated from the serum of the blood. Thus it would clearly appear that the coagulation of the blood and the formation of fibrin are caused primarily by the interaction of these two substances, viz., globulin and fibrinogen—the globulin existing in the serum of the blood and some other tissues, whilst the fibrin often exists in the plasma of the blood, lymph and chyle.

The preliminary considerations of these physiological conditions of coagulation of the blood may possibly enable us the better to appreciate the pathological conditions antecedent to the formation of fibrinous concretions. If an excess of alkali or the presence of acids possess the power of destroying the coagulating properties of globulin, and, consequently, of arresting the formation of fibrinous concretions, what a valuable fact is discovered!

In discussing fibrinous concretions in the heart and large vessels, it may not unreasonably be asked, why not follow the nomenclature of Virchow, and speak of thrombus and embolus. The reason is simply that fibrinous concretions

is an accurate description of the actual condition found on post mortem examination, and does not commit me to the etiology of the clot. Whereas thrombus, *i. e.*, a clot, and the process thrombosis, by which the clot becomes clotted, and embolus, a projected coagulum detached from the walls or valves of vessels and carried into the circulation, does imply a theory and knowledge of the formation of these concretions. The records of concretions in the heart, arteries and veins are but of recent date, nevertheless, they are exceedingly interesting and instructive. To the busy practitioner as well as to the physiologist and pathologist, do these conditions demand the most searching investigation. The practical significance of this condition is at once recognised when we associate it with the various diseased conditions of the different organs in the body. Nor is this all, certain local conditions of pressure and irritation have resulted in the formation of concretions in the vessels, and they, in turn, have become the chief factors in the production of pyæmia, or gangrene, or even softening of the brain. Dr. Aitkin says, he has never traced a case of phlebitis or pyæmia without discovering that the affection essentially begins by a real coagulation of the blood at some fixed point. When this beginning is discovered it is exceedingly significant as pointing to some source of local irritation, which, by simple disturbance of the flow of blood in some way, determines the formation of a clot. M. Ribes describes several cases illustrative of the formation of clots. In one case chilblains was the starting point, clots formed in the veins, proceeded to the superior veni cava, into the right auricle and ventricle, and thus causing death.

There are, doubtless, many proximate causes tending to the formation of clots in the veins, and that they occur much more frequently in our practice than is generally supposed. The more attention is directed to this subject, the more obvious will be the common cause of sudden death revealed in cases of wounds, fractures and operations.

The conditions favorable to the formation of clots in vessels are to be found where veins open upon fetid ulcers or where noxious gases are readily absorbed. These conditions tend to alter the fluidity of the blood. The poisoning of the blood by septic matter has long been recog-

nized, but it is still questionable whether the influence of poisonous matter on the coagulability of the blood in the living vessels has received that care and attention which its importance demands.

A coagulum once formed in the vessels may either undergo a complete fibrinous organization and become like connective tissue, or it may undergo, as was shown by Mr. Gulliver, a change of structure; the central layers may become puriform in character and chiefly composed of granules. These clots may, and often do, soften, break up, and are again carried into the circulation, and thus give rise to pyæmia. It thus becomes manifest that clots, however small and insignificant, in the peripheral veins, may lead to very serious if not fatal results. The size of the capillaries they have to pass through determines the locality of the secondary deposits and abscesses. The capillaries in the liver are well known to be larger than in the lungs, hence metastatic abscesses would be produced in the lungs, because the capillaries of the liver allow the debris to pass through them, and the capillaries of the lungs arresting the progress of the morbid product. This is considered by Virchow as so certain and conclusive, that he is inclined to regard all cases of metastatic abscesses of the lungs as of embolic origin. In cases of puerperal fever followed by metastatic abscesses in the lungs, he invariably discovered thrombi in the pelvic vessels. The connection formed in the veins and those found in the heart and large vessels must, from the preceding remarks, become apparent. It may be useful, for the purpose of discussion, to classify fibrinous clots into venous and arterial, and to note those clots that are associated with cardiac disease, vascular disease, or both; also those clots that are not associated with organic disease of the heart or vessels, but which appear to depend for their formation on certain antecedent pathological conditions of the blood.

1st.—The formation of fibrinous concretions associated with organic disease of the heart is easily understood, in those cases where the disease of the mitral or aortic valves interferes with the circulation of the blood, thus forming a mechanical obstruction and consequent coagulation. On this physiological process we depend when we employ pressure for the cure of aneurism. Again the detachments of fibrinous growths from the

valves of the heart is a frequent cause of arterial embolism. The atheromatous condition of the vessels, as it roughens the inner coat and obstructs the circulation, has a tendency to separate the fibrin from the serum of the blood, and the result is a fibrinous clot.

2nd.—Venous concretions. The formation of these concretions on the right side of the heart are frequently associated with fatty degeneration of the heart: the action of the heart is enfeebled, and consequently the circulation of the blood is retarded, a clot is formed. Clots are generally formed near some diseased portion of the arterial walls; there may be either atheromata or local inflammatory action, irritation or constriction of a vessel; but, when once formed, the clot may become detached and carried onwards in the circulation to some part of the vessel perfectly healthy. When a clot is thus discovered it was evidently not formed *in situ*.

The next group of cases in which I have found fibrinous concretions are those in which I failed, after most careful examination, to discover any organic disease of the heart or blood vessels. Consequently, I surmise that their formation was due to some antecedent pathological conditions of the blood. These cases suggest some very valuable and practical thoughts on the treatment of disease. The subjects of fibrinous concretions not associated with heart disease, nor disease of the vessels, nor traumatic injuries, were all children. The following cases have come under my observation, and a record of them may not be devoid of interest to the busy practitioner.

Case 1.—A. E., the child of Mrs. E., aged 18 months, was attacked with scarlet fever, malignant sore throat, nephritis, dropsy, albumen in urine, and casts. The case went on and was apparently doing well, except that it continued weakly and was having a tedious convalescence. There was nothing marked or unusual in the condition of the child until five weeks after the attack, when the child was suddenly taken ill about two o'clock in the morning. The father, an intelligent man, noticed that his child's heart was beating violently, and that it became suddenly pale and in a cold sweat, with twitching of the arms and legs. In a word, it was in convulsions, and died before my arrival. Now, what was the cause of death? The ready answer would be convulsions after and depen-

dant on the scarlatina, but what did the post mortem show?

1st. The *Head*.—Effusion of serum beneath the membranes of the brain.

Chest, Lungs.—Congested serous effusion into the pleura and pericardium.

Heart.—A decolorised fibrinous clot plugging up the pulmonary artery.

Peritoneal cavity.—Serous effusion.

There were no traces of albumen nor casts in the urine.

Case 2.—The mother of this child was under my care for some time. She became pregnant with twins, and suffered considerably from hydrops-amnios. One of the twins was arrested in its development at about the fifth month. The mother was delivered at the full term of a fine healthy child and of the arrested fetus. The living child appeared to do well for three weeks or a month, and then the mother lost her milk and the child was hand-fed. It then began to fade away, and became anæmic like the mother. At times it would appear to improve and give promise of doing well, then fall off again, and so matters went on for eighteen months, when suddenly the child, one morning, appeared faint and died without making a single cry, as it was lying on its back in its cot.

The post mortem revealed the following appearances :

Externally the child was pale and wasted. There was effusion into all the serous cavities and fibrinous concretions in the heart. The pericardium was distended with serous fluid to such an extent that, on pricking it, the serum spurted out. In this case the serum was outside and fibrinous concretions inside the heart. Was this the result of osmosis dependent upon an altered condition or alotropic state of the saline constituents of the blood, or was it an inherited predisposition traceable to the disease of the amnion?

Case 3.—Mr. W.'s child, aged 9 months. This child was put out to nurse and fed by the bottle. It was one of those baby-farming cases. The nurse frequently, nay, almost habitually, dosed it with Mrs. Winslow's Soothing Syrup. It was in a comatose state for hours. The child became pale, anæmic and shrivelled. It died suddenly. There was no evidence that, on the day of its death, it had any soothing syrup given to it, or any other opiate. The post mortem revealed

serous effusion in all the serous cavities, and fibrinous concretions in the heart. These concretions were not post, neither clots, they were colorless and organized. It is admitted that noxious gases absorbed into the blood affect its coagulability. What part then did this chronic opium poison play in causing the fibrinous concretions found in this case. Was it directly by interfering with the dynamics of the circulation, or was it by inducing an imperfect assimilation of food and the elimination of effete matter, thus depriving the blood of its normal constituents or catolytic properties?

Case 4.—The next case was that of a child that had recently recovered from an attack of diphtheria. The child was exceedingly weak. It appeared slightly paralyzed; the heart's action was feeble but excited. The child grew worse suddenly, and died apparently from exhaustion. The post mortem shewed serous effusion into all the serous cavities and fibrinous coagula in the cavities of the heart and large vessels. Was the plugging in this case due to the contagion of diphtheria circulating in the blood, or to the depression of the nervous system as indicated by the heart's action?

In this group of cases three conditions appear to be constant, viz: 1. Serous effusion into the serous cavities. 2. An antecedent anæmic condition of the blood. 3. A fibrinous concretion in the heart or large vessels. These conditions supervene, not unfrequently after the little patient has passed through some acute zymotic disease. It is exceedingly annoying, after carefully watching a case of malignant scarlet fever or diphtheria through the acute stage and giving favourable prognosis to parents and friends, all at once to be summoned to your little patient, either to find the child dead or beyond your power to assist in prolonging life, and this to have come upon you unawares, and thus place you in that unpleasant position, that you are bound mentally at least to confess that you did not expect such a termination to the case.

I feel fully persuaded that if post-mortem inspections were generally made in cases of children that die from acute diseases, that fibrinous concretions in the heart and large vessels would not unfrequently be found to be the cause of the sudden deaths in these cases which are recovering from zymotic disease.

The practical question arises, what is to be done? First, carefully consider the probable condition of the blood of your patient, and recognize the probability and tendency there is to serous effusion and fibrinous concretion resulting in blood disintegrated by zymotic disease. Which remedy offers the best chance of restoring the blood? Under these conditions I have found some preparation of iron of the greatest value. It materially affects the dynamics of the circulation, and is the best prophylactic. When once the clot is formed, ammonia in large doses in milk may be given with success in some cases.

The next group of cases comprise those in which there was organic disease, either fatty heart, valvular disease or atheroma of the vessels. There were six cases, two of which were seen by consulting physicians in London, who confirmed the diagnosis, but a post-mortem was not allowed. In the other four cases I was allowed to make inspections.

Case 1 was a woman aged 74, she had been a notorious drinker; she suffered from occasional attacks of dyspnoea, and died suddenly. The post-mortem appearances were as follows:

The Head.—There was effusion of serum beneath the membranes; the brain was shrunk and soft; the membranes thickened and opaque.

The Chest.—The lungs were both congested; the heart was exceedingly fatty, so much so that on lifting it up in order to divide the large vessels my fingers accidentally went through the right auricle; the muscular structure tore like wet brown paper; there were discoloured fibrinous clots in the right side of the heart extending to the pulmonary artery.

The stomach was empty; the coats were thickened and corrugated like the lining membrane of a fowl's gizzard; the liver was coarcted.

The kidneys were healthy; the capsule easily peeled off, and the medullary and corticle portions appeared perfectly distinct and normal. There was an atheromatous condition of the aorta and the vessels at the base of the brain.

Case 2.—A. W. was a professor of languages; he had complained of great difficulty of breathing for several years. He had been told he was suffering from asthma and treated for that complaint. He believed he had heart disease, and that he should die suddenly, consequently

he never went out without his name and address attached to his clothes. Previous to May, 1872, he had two fits in the street, but he recovered. On the 8th May, 1873, he suddenly felt faint and went into a public house for a little brandy and water; before he could get it to his lips he fell down in the bar dead. I saw him directly, his face was livid, his hands clenched, there was a cold sweat on the face and chest. The following are the post-mortem appearances:

Head.—There was a little serous effusion beneath the membranes of the brain. On making a section of the left hemisphere there were the remains of two clots, they were almost decolorised, and were respectively the size of a pea and a half a horse bean; they differed in degree of colour; the basilar arteries were atheromatous, the brain structure was soft.

Heart.—The heart contained fibrinous clots; a section of one showed fat globules under the microscope; the lungs were congested; the other organs were healthy.

Case 3 was a woman aged fifty, she died suddenly; had been an excessive spirit drinker. The post-mortem showed thickening and opacity of the membranes of the brain; effusion of serous fluid beneath the membranes; brain substance shrunk; the arcus senilis well marked; the lungs were congested; effusion into the pericardium and fibrinous clots in the left side of the heart; the liver was cirrhotic; the kidneys healthy; the stomach thickened.

Case 4 was a boy aged twelve years, he had suffered from rheumatic fever and died suddenly; the heart was enormously hypertrophied, it weighed seventeen ozs; the pulmonary artery was firmly plugged with a white fibrinous clot; the lungs were congested.

From the above cases it would appear that fibrinous concretions may be formed under certain dynamical conditions of the circulation. The heart may be fatty and fail to carry on the circulation equably through the vessels, or the vessels may not exert equably their elasticity and thus aid mechanically in the production of fibrinous concretions. The diagnosis of the structural changes of the heart and vessels has been carried to a high state of perfection, and it is possible to point out to what extent the circulatory apparatus is defective; but it is necessary to bear in mind that the mechanical apparatus is a *vis organ* depen-

dent for its own existence on the manner in which its operations are carried out. Hence the importance of recognising the conditions of blood which precede all pathological changes. In cases of apoplectic clots in the brain, Dr. Sieveking has shown that if a patient survive a fortnight or three weeks that blood crystals are formed. It would appear that these blood crystals do not form from clotted blood until the blood corpuscles have become ruptured by endosmosis. May not the same pathological process be carried on in the heart? If so, what an important factor the blood salts play in this fibrinous change.

In cases of splenæmia the blood was found by Scherer to have the following abnormal constituents: lactic, acetic and formic acids and a peculiar substance (hypoxanthin) to the extent of 6 per cent. This hypoxanthin is normal in the spleen but not in the blood. Conditions of the blood expressed by the terms anæmia, splenæmia, léucocythemia, are those in which will be found grey yellow coagula in the heart and large veins. These coagula, says Vogel, are made up almost entirely of colourless corpuscles. The conditions of the blood in different diseases would be exceedingly interesting. Dr. Dulcher, of Ohio, has arrived at the following conclusions with respect to the blood in phthisis.

1. That there is a decrease of the red corpuscles and a slight excess of the white.
2. That there is an increase of fibrin and a deficiency of its vitality.
3. That the albumen is in excess as to amount, but depraved in quality and unfit for the elaboration of healthy fibrin.
4. That there is an increase of dissolved animal matter and a diminution of saline matter.
5. That there is a reduction of its specific gravity and an increase of its watery particles.

The above conditions I have known to be associated with fibrinous concretions in the hearts of phthisical patients. The old proverb, a stitch in time saves nine is as true in disease as in economics. A knowledge of the initiatory blood changes if recognised could be more easily modified or prevented than when those changes have fully expressed themselves in organic structural changes.

Progress of Medical Science.

CLINICAL LECTURE ON THE USE OF DIGITALIS IN DISEASES OF THE HEART.

Delivered at the Philadelphia Hospital by H. C. WOOD, JR.,
M.D.

There are, gentlemen, primary physiological facts concerning the action of digitalis which I shall to-day lay down somewhat dogmatically as the premises for the discussion of the subject. I do this because time is wanting in which to give you the proofs of these premises, even if they were not out of place in a clinical lecture-room; and I do it the more willingly because those of you who may be inclined to be skeptical can find these proofs in detail in my treatise upon therapeutics.

By experiments on the lower animals two things have been definitely ascertained: 1, that in the lower animals digitalis is a very powerful stimulant to the inhibitory apparatus of the heart; and 2, that it is also a powerful stimulant to the muscular substance or its contained ganglia.

We know the first because after the administration of the drug, when the heart has already been affected by it and is beating slowly, if the inhibitory nerves be cut, the organ springs, as it were, into an intense rapidity of action. The drug stimulates the cardiac muscle, because the amount of work performed by the heart is vastly increased under its influence, even when the viscus is disconnected from the body. We also know as a probable fact that digitalis causes a general vasomotor spasm, a contraction of the muscular walls of the vessels. Thus much for the observations made on the lower animals.

When digitalis is administered to man, the first thing we observe is a diminution in the number of heart-beats and an alteration of the character of the pulse, which becomes full, and hard, and strong. You can recognize by the feel of the blood-wave that both the force of the contraction of the heart and the amount of blood thrown out during the systole are increased. If the drug is given in poisonous doses the pulse may, it is true, become rapid, and smaller than normal. The meaning of this can be explained by referring again to the animal. We find that here the same phenomena are observed, and that if a very large dose is given, the heart may be suddenly arrested in systole from irritation of the cardiac muscle; before this happens, for a time, the tendency to contract is so great that the systole will occur before the complete filling up of the cavities. Two short imperfect waves are thus produced instead of one long one: this is the double beat,—forming a dicrotic pulse. In man the "dicrotic pulse" of digitalis is classical, and its mechanism is evidently the same as that of the double arterial wave in the lower animals: instead of a long pause and a full dilatation, the first attempt at diastole is interrupted by an abortive systolic contraction. As in animals, probably in these

cases also, the apex of the heart scarcely relaxes at all. Again, a person under the influence of digitalis may have a heart beating 50 or 60 per minute when in the recumbent posture, but on sitting up the pulse may suddenly become weak and mount to 100 or 120. The action of digitalis has been carried in such a case to the point at which an excess will throw stimulation into overstimulation and imperfect contraction. The act of rising brings an extra strain on the heart, and the muscle loses its power of regular action.

Digitalis, then, in man, by its action on the inhibitory apparatus, prolongs the period of diastole, thus giving time for the ventricles to fill up with more blood than usual, and also increases the muscular power of the heart, so that when it contracts a greater volume of blood is thrown with a greater force into the arterial system. Before we begin to apply these principles, remember also that the vascular system under the control of the vaso-motor nerves is probably kept in a state of contraction by the influence of digitalis.

Almost nothing but common sense is needed now to apply these facts to the treatment of heart-diseases. If what has been said is true, digitalis ought to be useful when there is a deficiency of heart-power. Remember that it is not a rag that will stop up a leak; and do not fall into the common error of expecting the drug to perform impossibilities. It cannot tighten a leaking valve. It cannot open and smooth down a contracted orifice. In other words, in valvular lesions it can only indirectly remedy the defects; and, although often you will get the most surprising results from its use, yet in every case of valvular lesion there comes, sooner or later, a stage when digitalis is powerless. It is when the valves are healthy, and the cardiac failure is due simply to weakness of the muscular walls that digitalis exerts its most wonderful powers. Nothing is more marvellous in clinical medicine than the relief you can sometimes rapidly afford in cases of simple dilatation of the heart. The following extract from my private note-book will probably do more than any declamation to impress this fact upon you:

"Mr. D., æt. 55, when first visited in the morning was found in a condition of intense cardiac dyspnoea. There was no cardiac murmur, and nothing to indicate a valvular lesion; but the heart-sounds were very feeble, and the impulse was exceedingly weak and fluttering; its area as well as that of the percussion-dulness was widely extended. The urine was albuminous, and the patient was passing only three or four ounces in the twenty-four hours. The sick man sat during the whole day and night leaning against the back of a chair, struggling for breath. He would fall asleep for an instant, the respirations becoming feebler and more and more distant, until the face grew livid and deathlike, when suddenly he would awake with a violent start, and enter upon a succession of labored, gasping, struggling respirations. In three or four minutes he would become quiet;

then the respirations would grow slower and slower until at times they would be entirely suspended for nearly a minute, when he would awake with a start as before. For several weeks, under the care of a notorious dispenser of diluted nothings, this man had spent in this manner nights and days of horror with death staring him in the face. He assured me that he had not been conscious of sleeping for over a week, and that he only wanted to get sufficient relief to allow him to get to his home in the far West and make some business arrangements before going the long journey. He was ordered fifteen drops of tincture of digitalis every two hours. At the end of twelve hours the effects were already manifested. The pulse had fallen from 102 to 94, and it was fuller and stronger than before. The agony of the spells was slightly relieved by the administration of morphine. Quinine and stimulants were also given. In the next twenty-four hours seventy-five drops of the tincture were given, and the pulse fell to 84 and became full, strong, and regular. He passed over a pint of urine. During the ensuing night the patient took no digitalis, and his pulse was not so strong in the morning as it had been, although only 86: during the day following he was given forty-five drops of the tincture: in the twenty-four hours he passed one and a half pints of urine.

"Not to weary you with details, I will tell you that, continuing the use of the drug, in the course of two or three days the spells of dyspnoea almost disappeared, and he was able to sleep in his bed. In a few weeks this man returned to Omaha, where he died suddenly a few weeks later."

Let me give you, gentlemen, another lesson from my note-book:

"A physician leaving town for a few days asked me to take charge of a lady patient of his, whom we found in our visit together very much in the same condition as the case just described. She had been taking five or ten drops of tincture of digitalis three times a day. I suggested a large increase of the dose; and my friend, turning to the patient, said, 'Doctor, this woman has been in this chair many weeks: I have done all I could for her, but life is a heavy burden to her: she wants to die. You can't do more than kill her: if anything offers a prospect of relief, she wants it, no matter what are the risks. She is well pleased to have you kill her.' The patient nodded acquiescence. It was the strangest scene I ever witnessed in a sickroom. Digitalis was therefore ordered in large and constantly-increasing doses. The result was that, a few weeks subsequently, when my colleague returned and rang the door-bell of the house, this woman came down from the third story to let him in."

The dilated heart is weak, and also is embarrassed by that weakness. Owing to its want of power, the circulation begins to fail; then instantly through the nervous system come the demands from all the tissues: more blood, new blood, better blood, is wanted. The heart is irritated beyond

measure; it gets flustered, as it were, and its beats become rapid, irregular, and even more inefficient than at first; the diastole never lasts long enough for the ventricle to fill itself, the systole for the ventricle to empty itself. Then it is that digitalis lays its strong grasp upon the organ and bids it keep still; it gives it time to fill itself with blood, and power to propel this blood through the system. In this way it is that the tissues, being satisfied, cease to urge the heart, that the lungs clear, and the dyspnoea abates.

Never as long as you live, gentlemen, give, in these cases of rapid pulse with cardiac weakness, aconite or veratrum viride. They are the very antagonists of digitalis, and when the latter does good they would act as true poisons.

Suppose we now consider the opposite extreme to dilatation,—namely, hypertrophy of the heart; where the organ heaves and throbs and the whole frame is shaken by the powerful impulse. Digitalis will very readily bring about in this heart a condition of spasm, and the patient may drop dead from syncope, depending upon a contracted heart. Thus digitalis, by stimulating a muscle already too powerful, does harm in simple hypertrophy of the heart. Here it is that veratrum viride and aconite are of service. Veratrum viride, whilst stimulating slightly the inhibitory apparatus, weakens most decidedly the muscular force of the heart.

Under its use the pulse grows weaker and smaller.

There is another disease of the heart not connected with valvular lesion, in which digitalis is of great service. I refer to the irritable heart. It is most frequently found in soldiers, and in persons subjected for a long time to muscular strains.

As an instance of this irritable heart occurring in civil life, I mention the following case which I recently saw. A robust young man was in training for a rowing-regatta on the river. After a while he began to lose his wind sooner than his companions; and at last he had to give up the exercise altogether, for he was hardly able to walk up-stairs without severe palpitations and distress about the heart.

Irritable heart is nearly always due to over-strain of the viscus, is generally associated with weakness, and usually tends towards the production of cardiac dilatation. It is, I suspect, in some measure dependent upon a loss of power in the cardiac inhibitory apparatus. For obvious reasons, then, in most cases of irritable heart digitalis is of the utmost service. In some instances, however, the tendency is towards hypertrophy, and not towards dilatation. Under such circumstances, veratrum viride, not digitalis, is indicated.

In valvular disease with dilatation there always is weakness of the heart. Here the effect of digitalis is not so marked as in simple dilatation; but still, by regulating the heart's action, it probably diminishes the leakage of blood, and, by giving strength to the muscle, makes up to a certain extent for the deficiency.

Some of you may have seen me prescribe digitalis in cases of hypertrophy with valvular disease, and you may think that I contradict myself; but it is not so. The mere existence or non-existence of hypertrophy in a case of valvular disease is no criterion for the administration of the drug. The point to be decided is whether there be or be not *relative* hypertrophy; whether the increase in the strength of the cardiac muscle has or has not been proportional to the increase in the work required of it. To make this clearer, let us suppose that the healthy heart has to exert a force equal to 100 to pump the blood through the system. When there is a leakage, the amount of work being increased, the amount of force needed will also be much greater. Suppose that the amount of work needed of the diseased heart then equals 200. It may be that hypertrophy shall occur under these circumstances to such an extent as to double the cardiac power; then all will be well: double work and double power will mutually balance each other. If, however, the increase of power shall fall short, amounting only, let us suppose, to 150, the organ is really in the condition of dilated heart. It is not the amount of power in the muscle, but the proportion of power to the demand, that is the question. A heart may be absolutely hypertrophied, but relatively dilated. Hence it is that the great question for the therapist is not to know which valve is diseased but whether there is force enough for the demand. This is the criterion that must guide you in the administration of digitalis.

Practically, I believe the minute diagnosis of the exact character of the valvular lesion is often not important, and the question as to the availability of digitalis may be determined by studying the condition of the system. If the heart cannot pump the blood with sufficient power, of course the arterial system will be comparatively empty, whilst the veins will be full. Imagine the mitral valve to be eroded; at each contraction of the left ventricle there is a certain amount of blood thrown back into the auricle; this become distended, and cannot empty itself properly; the pulmonary veins opening into the auricle become engorged, and fail to carry the aerated blood away from the lungs. These become congested, so that the right heart, whose business it is to pump venous blood into the lungs, fails to do so properly, becomes distended, and prevents the unloading of the venous system through the two venæ cavæ; as a consequence of this general venous engorgement, œdema and dropsy come on. Almost always when you have venous congestions and dropsies the heart is weak; and you may set it down as a practical rule, with exceedingly few if any exceptions, that cardiac general venous congestions and dropsies call for digitalis.

In concluding this lecture, I call attention to the man before you as illustrative of the value of digitalis in giving temporary relief in cases of the most desperate and hopeless character. You will

also notice the fact that in my treatment I have been guided by the general symptoms rather than by the cardiac lesion. Owing to the irregular and feeble action of the heart, the indistinctness of the murmurs, and the fact that auscultation distresses the patient exceedingly, I have been unable to make a positive, accurate diagnosis; in fact, at my first visit the condition of the patient was such I did not even attempt a cardiac examination.

"George R., æt. 43, German: shoemaker; admitted Oct. 3, 1874, into the house, complaining of nothing but dyspnoea, with which he had been suddenly attacked a month before, whilst working in a damp cellar. The dyspnoea was very great; the urine albuminous; the abdomen very hard and tender. There were two marked lateral areas of dulness, which presented distinctly the outlines of the liver and spleen, the edge of the liver-dulness extending to within one inch of the crest of the ilium. There was some œdema of the feet. All these various evidences of damming back of the blood in the abdominal organs betrayed an intense cardiac obstruction. On the morning of the 6th of October the patient's pulse was 112, very nearly what it had been since admission, and he had passed only eighteen ounces of urine in the last twenty-four hours. He was then ordered fʒss of infusion of digitalis every three hours. To-day, the 10th of October, the shortness of breath is better, and he eats better, because the congestion of the stomach has been relieved. We must expect to find also a similar relief in the other abdominal organs. On percussion, the liver-edge is found two inches higher up than at the last measurement. The enlargement of the spleen has almost disappeared. The pulse, which was exceedingly weak, has become large and hard, and does not reach above 100. The congestion of the kidneys has been much relieved: we find that he now passes thirty-six ounces of urine in the twenty-four hours.

This man, then, has been very much improved, and yet we do not know what is the matter with his heart. The presence of so much portal congestion would seem to point towards the existence of disease of the right heart.

At a future lecture, gentlemen, I shall point out more in detail how digitalis is of value in special cardiac valvular diseases, and how it is sometimes absolutely curative, and shall also speak of its danger and mode of administration.

SHIVERINGS.

SIR JAMES PAGET lately gave a clinical lecture on this subject, of which notes appear in the *Students' Journal and Hospital Gazette*:—

"Shiverings were regarded as striking forms of nervous storms, the most striking form being megrim. They are a kind of convulsion, characterised by trembling and startings of the limbs, with a morbid condition of the sensory nerves, as coldness,

which is really illusory, since the temperature rises as in ague, and minor feelings, as a feeling of coldness, contraction of skin and arteries, &c.

"A shivering fit may be replaced either by an epileptic fit, as in a case of a man who had an epileptic fit followed by the formation of an abscess in the prostate, or a state of coma, as occurred in a person to whom an abscess followed on it; or in children, by convulsions or collapse. Surgical shiverings may be classed—1. As regards abscess. 2. Injuries and operations. 3. Injuries of the urethra.

"I. An abscess is *most* likely to follow on a shivering fit, but not always. The absence of shivering does not denote that an abscess will not follow, for some persons seem incapable of shivering. Shiverings may be taken as a help to the diagnosis of an abscess, to distinguish it from a solid tumour. They may be periodic, resembling ague, especially in an abscess of the brain in connection with some diseased bone.

"II. After a severe injury (i.) shivering may occur without harm resulting, as in a man who fell through a window upon the back of his head. (ii.) After an operation, if shivering follow within 24 hours, or anyhow within 12 hours, it seldom denotes anything of importance; it may occur through placing the patient in a cold bed, but after 24 hours it denotes something significant, either—i. Abscess at seat of injury; ii. pyæmia; iii. erysipelas. The longer the time the temperature has been noticed to be going up, so much the greater will the mischief be that follows. The mischief that will succeed on the shivering fit cannot always be determined by the character of the shivering. As a rule, in pyæmia the shivering and sweating are greater than in erysipelas, and occur several times; whereas in erysipelas the shivering occurs but once, and in addition there is vomiting. Frequently a shivering fit will precede a cutaneous eruption, as eczema or urticaria after operations.

"III. *Urethral Shivering*.—Persons in full health often shiver when passing water their bladder having got very full; so, after lithotomy, severe shivering and sweating may occur the first time the urine is passed by the urethra. In cases of stricture of the urethra shiverings often happen, which may be periodic, resembling ague, so that a mistake in diagnosis may and has occurred. Some persons always shiver on the passage of an instrument along the urethra, and then it means nothing. This does not happen with their other mucous passages. After passage of a catheter for the first time serious shiverings may follow, which may be succeeded by (i.) pyæmia; (ii.) local inflammation of the part; (iii.) suppression of urine; (iv.) fall in the specific gravity of the urine. I have heard of six cases in which death even has followed, so never pass a catheter for the first time on a person unless he is going quietly home and into a warm room. Always too, notice the quantity and specific gravity of the urine subsequently passed.

"*Spurious Shiverings*.—Some shiver at every—

thing; it means nothing, being a form of hysterical convulsions. Persons who have once had ague, whenever they get out of health, *always* have repetition of the ague, as in a person after an operation, who had ague for the first time fifty years ago.

"*Treatment.*—To any person who might be suspected of shivering after the passage of an instrument, give quinine gr. 5, and opium gr. $\frac{1}{2}$: short of this some stimulant. Quinine after operations will stop the shivering, but not the pyæmia, if it is going to follow."

EXTERNAL TREATMENT OF VARICOSE VEINS.

Dr. Linon says, in the *Tribune Medical*, that he has treated such cases with success by swathing the leg in a flannel compress wet with a solution of chloride of iron in water, forty-five grains to the ounce, and then applying a roller flannel bandage over it firmly for twenty-four hours. This is to be repeated daily for a week or two weeks, when the patient is, or ought to be, well.

ON IPECACUANHA SPRAY IN WINTER COUGH AND BRONCHITIC ASTHMA.

DR. SYDNEY RINGER and MR. WILLIAM MURRELL in a communication to the *Lancet* (Sept. 5, 1874) state that "the successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

"We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely choose severe cases."

In winter cough "our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but, if it continues, a weaker solution should be used. The patient soon becomes accustomed to it, and inhales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and con-

sequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

"The dyspnoea is the first symptom relieved. The night after the first application the paroxysmal dyspnoea was often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvement taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold. We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundreds yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, the comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes. The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much more readily, and thus the cough becomes easier, even before the expectoration diminishes.

"Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with one only pillow. This improvement occurs in spite of fogs, damp, or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room."

"All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9.4, and the average number of days was twelve before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest

undertreatment required twenty-four days; the shortest, four.

"In employing the ipecacuanha spray, in order to insure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, some times enough is swallowed to excite nausea, and even vomiting, by which means the bronchial mucus is mechanically displaced, and, of course, in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucous membrane; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes especially on the commencement of the treatment, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers, and to breathe deeply. The inhalation should be used at first daily, and, in bad cases, twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed."

LEUCORRHOEA OF YOUNG GIRLS.

A Clinical Lecture by Prof. Bouchut, translated for the Detroit Medical Review by Dr. Edward W. Jenks.

We have before us now two cases of leucorrhœa, one a girl of ten years and the other a child of four. As this disease exceedingly disturbs mothers, who, in their ignorance of matters of life, cannot comprehend that organs on the road to development, and which they suppose are dormant and far from their period of physiological activity, can be diseased. I now purpose telling you the nature of this malady and its treatment.

The first case relates to a child ten years of age, ill for three weeks. Without any known cause or anterior disease this child was taken with itching; and a profuse vaginal discharge, which stained the linen green, the same as with women

having leucorrhœa. The vulva is hot, its folds are filled with pus, and the opening is tumefied and of a dark wine color. We cannot see upon the mucous membrane either follicles or ulceration. Neither does pressure upon the hypogastrium or laterally upon the lips cause pus to be expelled from the vagina. The clitoris is red, swollen, and protrudes far beyond the labia majora. We find no taint of scrofula, but there are present eczema upon the head and pityriasis upon the face. It is evident to me that this child possesses a herpetic diathesis. This is important to remember as a sufficient cause to account for the leucorrhœa.

The other child was for some days in a febrile state, for which there was no apparent cause. After this there was a leucorrhœa, followed by apthæ of the vulva, which became ulcerated. These ulcerations spread and became deeper, showing a particular form of gangrene of the vulva. This leucorrhœa results from want of care, and the bathing so indispensable in all acute maladies of young girls. These two cases differ essentially. The first patient is of a leucorrhœal diathesis. The second one has an inflammatory leucorrhœa, due to want of cleanliness.

We will discover these two causes in many cases of leucorrhœa, but they are not the only ones. It is necessary to add to these, criminal attempts against decency, which are very common, and which, by friction of the parts, engender simple inflammation, followed by a discharge. There may be also blenorhœgia, or syphilitic contamination, producing their specific effects. To these causes, if you add masturbation, which irritates the mucous membrane of the clitoris and vulva, or the thread worms of the rectum, which frequently find their way into the vagina, provoking itching and irritation of the mucous surface, you will learn what are the causes of leucorrhœa in young girls.

The most frequent cause is herpeticism, or the herpetic diathesis. In acute diseases of children, where they are scrofulous and unclean, this disorder may follow with the most unhappy consequences. In effect, in typhoid fever a septicæmic malady, and in measles a virulent malady, one often sees the vulva filled with purulent mucus of a very irritating nature, and, if the children are not washed, there results a follicular vaginitis, followed by ulcerations, with red edges, and, at the bottom, a grayish pseudo-membrane, which resembles aphthous exudations of the mouth. Later these ulcerations become phagedenic, extending in every direction, causing considerable loss of substance, destroying the vulva, perineum, and sometimes reaching into the anus. This is extensive molecular gangrene.

In other cases, under the follicular ulcer there is sudden engorgement in the cellular tissue, forming a small, hard lump, accompanied with tumefaction and redness of one lip; then a black spot appears, which extends rapidly, exhibiting veritable gangrene of the vulva. This sloughing

gangrene is almost always fatal. These varieties of leucorrhœa are the most grave and the least common. The others, connected with scrofula or herpeticism, do not lead to such serious consequences; they last some weeks or months and disappear. Their nature is indicated by the diathesis of the children.

The seat of leucorrhœa in children differs absolutely from that of women or girls after puberty. While in the adult leucorrhœa is always vaginal or uterine, with children it is always vulvular, occupying only the external parts of the generative organs. It is the mucous membrane of the ostium vagina only which is affected. In the two children here exhibited the suppuration is in this locality, and does not extend into the vagina, thus proving the truth of my statement. The liquid secreted stains the linen green, is acrid and irritating, differing in abundance in different cases. It provokes a disagreeable pruritis, causing children to scratch themselves, and thus sometimes giving rise to the habit of masturbation. Further, this very irritating fluid may adhere to the fingers of children, if they are allowed to put them about the vulva. With the fingers thus soiled they may rub their eyes, producing grave purulent ophthalmia; hence the necessity of putting gloves upon them, or long clothing fastened around the ankles.

After what I have told you concerning the leucorrhœa of young girls, and its varieties, you will observe that the treatment must differ, according to the presumed cause of the trouble. In leucorrhœa produced by the emigration of thread worm from the rectum into the vulva it would be well to wash the parts with carbolized water or baths of creasote, and put into the rectum suppositories of mercurial ointment.

In leucorrhœa of acute disease, lotions of water with aromatic wine may suffice, but, if there be follicular or phagedenic ulceration, an ointment composed of one part of coal tar to ten of lard will prove serviceable. If in place of the phagedenic ulcer there is a crust, it should be detached, and the wound sprinkled with powdered camphor. Now, for leucorrhœa caused by scrofula or herpeticism it is necessary to give internally cod liver oil and the arseniate of soda:

R. Arseniate soda.....grs. ij.
Syr. simplicis..... $\frac{3}{4}$ iv.

Of this a teaspoonful morning and evening for children under seven years of age; above this age give two teaspoonfuls in connection with external treatment, as baths of a solution of carbonate of soda and sulphur baths. If the disease resists the treatment already pointed out, then it would be well to paint the parts with a solution of nitrate of silver. The leucorrhœa never resists these combined means, and the alliance of external and internal treatment which I have mentioned suffices for triumphing over this malady.—*Annales de Gynecologie.*

CLINICAL LECTURE ON SCABIES.

Abstract of a lecture delivered at the Hospital of the University of Pennsylvania.

BY LOUIS A. DUHRING, M.D.

GENTLEMEN,—Before examining this patient we will obtain from him a few facts relative to the beginning of the complaint from which he suffers, and also some account of its course. He is an Englishman, healthy, and has never had any disease of the skin previous to that for which he now seeks relief.

When he landed in New York, six months ago, he was, to the best of his knowledge, perfectly well. He spent two nights in a boarding-house in that city, and then came to Philadelphia. Three weeks after his arrival here he first noticed an eruption on the left fore-arm, characterized by itching. This spread gradually from one point to another, until pretty much the entire body, with the exception of the face, palms of the hands, and soles of the feet, became involved. Lately the itching has been so severe as to keep him awake all night: indeed, he tells us he is often obliged to stupefy himself with liquor in order to gain a night's rest.

Such are the facts in the history of the case. Now, proceeding to examine our patient, we first observe that the disease is a chronic one. We do not need the history to acquaint us with this fact; any one who has had much experience in this class of cases would immediately perceive the disease to be non-acute. This patch, for instance, can easily be known to have existed some time. We have here numerous old scratch-marks, the result of long and habitual use of the nails. Let me remind you just here that the presence or absence of the evidences of scratching should always claim your attention in the examination of diseases of the skin. Such evidences will decide at once, whether the affection under consideration belongs to the class of itching or non-itching diseases. The case before us evidently belongs to the former; even such remote parts of the body as the integument covering the angles of the scapulæ, which are quite difficult to reach, have been attained by long practice on the part of our patient.

As to the localities affected, you will observe that though the disease extends pretty much over the entire body, yet there are certain parts where the process seems to have been more active, as evinced by the greater number of scratch-marks. The regions about the axillæ, for instance, have been very much scratched. Some of these marks are quite florid,—they are recent; others are darker and older. About the nates, the disease appears to have been particularly troublesome. We notice here that the corium has become considerably thickened, and many large pustules are scattered over it.

Along the thighs also, the scratch-marks are very numerous, and the skin is sprinkled over with crusts, not of dried pus, however, but of blood. We have here, also, broken hairs and torn follicles, from each of which a drop of blood has oozed.

All these appearances result from the scratching; and I dwell upon these marks because they play an important part in the history of the case. Before leaving this point, observe that the inside of each thigh presents the disease in a still more marked form. We have here pustules, scales, pigment-spots, and patches of infiltration, which will endure some time after all active symptoms of the disease have disappeared.

Taking a general view of the case as the patient stands before us, notice the peculiar arrangement of the eruption: plentiful in the axillæ and on the buttocks and abdomen, less so on other parts of the body, notably the sternum. On the palms of the hands and soles of the feet, as well as on the face, absolutely no trace of the affection can be discerned.

The differential diagnosis of the case lies between two diseases: simple eczema, and scabies or "the itch." These two affections are the only ones likely to assume the appearances here presented. Remember that when I speak of scabies, as "the itch," it is not merely an itching disease to which I allude, but one of a parasitic nature, dependent upon the irritation and inflammation produced by an insect, the *acarus scabiei*.

A single point shows us almost certainly which of these two diseases we have before us, and that is the arrangement of the eruption. On the one hand, we have it more marked over the axillæ, abdomen, buttocks, and thighs,—all parts of the body well protected with clothing. On the other hand, the eruption is very scanty over the sternum, and does not exist at all on the face, palms, and soles, all of which are localities either greatly exposed to external influences, or which, from their structure, are unfavorable to the morbid process.

In short, the eruption affects those parts of the body best suited to the unhindered development of the itch-insect, and we have before us a case of scabies. Were this eczema, we would have the eruption more irregularly distributed; eczema has no places of election. The diseases in appearance, however, resemble each other closely, and in fact the result of the irritation of the itch-insect is eczema of one form or another; but it is a result, and not the primary lesion. Cases of eczema papulosum are often mistaken for scabies, and the patients reported cured by internal treatment, etc.

The only reliable diagnosis, after all, is based upon the presence or absence of the itch-insect itself, the *acarus scabiei*, which must be carefully sought for in such parts of the skin, as it is most likely to be found in. One of these localities is the hand, and particularly the skin on the inside of the fingers. At this point the burrows in which the *acarus* lies are less likely to be torn open, and may also be seen more distinctly than elsewhere. When patients work in strong alkalies, acids, or the like, these burrows become destroyed, and are then very frequently not found or are altogether absent.

The burrows of the itch-mite are worthy of careful study. They are produced by the insect finding

its way under the epidermis, and then making a canal or passage, which is seen upon the surface as an elevated line or ridge about a quarter of an inch long, usually dark-colored or black, owing to accumulations of dirt and foreign substances which are apt to collect upon the hands.

The burrows are about half a line in width, and vary in length; sometimes they are but a line or two, in other cases they are as much as half an inch long. They are found in greatest number, perhaps several or more, upon the insides of the fingers near the hand, where the skin is thinnest. Here the mites make their habitat, and are apt to remain undisturbed until they have deposited their eggs, when they are known to die in their burrows.

There are very few entire burrows on this man's hands, owing to the fact that the disease is chronic, and the long-continued scratching and tearing to which the skin has been subjected has caused them to become rubbed down, broken, torn, and scraped off, and finally, to a great degree, obliterated. Still, there are some left, and by carefully searching these the insect may be detected and picked out. We need not expect to find a dozen in this hand; we shall be fortunate if we find two or three.

In order to obtain the *acarus*, we take a needle, and, opening the closed end of the burrow, which is indicated by a black dot, and which is the point where the insect lies, we may be able, if dexterous, to lift it out upon the needle-point. The operation must be performed very carefully, otherwise the wrong end of the burrow may perhaps be picked, and a drop of serum exuding will swamp the *acarus* beyond all hope of recognition. The parasite, you must remember, is exceedingly small,—scarcely the one-thirtieth of an inch in diameter,—and of a color and transparency almost those of serum itself. You must be careful, therefore, I repeat, or you will almost certainly fail to obtain it.

It is the female *acarus* which burrows in the way I have described, in order to deposit its ova. The male insect crawls about over the surface of the skin, and may be detected with the aid of a lens by those who are more than usually fortunate. He is exceedingly difficult to find.

I will not give you at this time the treatment of scabies in general, but merely the plan which we shall pursue in the present instance, which is as follows:

Let me begin by advising you, whatever application it may be of which you make use, not to make it too strong. Were we to employ the official sulphur ointment, for instance, in this case, containing as it does four drachms of sulphur to the ounce of lard, we should make the patient's condition worse for the time than before, since an artificial irritation would in all probability be set up. He already has eczema from severe and long-continued irritation of the skin, and any strong application would only tend to aggravate the inflamed skin.

We shall, therefore, in the present instance, make use of the following formula:

℞ Flor. sulphuris,
Bals. Peruvian., aa ʒ ii;
Adipis, ʒ iv.—M.

This ointment is to be thoroughly worked into the affected portions of the skin, every morning and evening for four days. If this has been thoroughly done the sores itself will by that time be cured, and there will remain only the artificial eczema, produced by the presence of the acarus. This, the cause having been removed, will probably get well spontaneously, nothing more being needed than bathing. You must not expect, in a case like this, that all itching will cease the moment the disease is put an end to. The mere nervous excitability brought about by long-continued sleeplessness and irritation will not at once subside. We shall, however, expect that, when this patient appears before us a week hence, most of the itchiness shall have subsided, and that he shall enjoy a good night's rest.

It will be some time, however, before all trace of the eczematous eruption shall have disappeared and it may be necessary to hasten this result after a few days by such an ointment as the following, to be applied morning and night, after bathing :

℞ Acid. carbolic., gr. x;
Ung. zinci ox. benz., ʒ ii.—M.
—*Philadelphia Medical Times.*

SELECTED PRESCRIPTIONS.

FOR UTERINE NEURALGIA.

℞ Tinct. aconiti rad. (Fleming) ... ʒ iss.
Ammonii chloridi. ʒ ij.
Ammonii iodidi ʒ i.
Tinct. card. comp. ʒ i.
Syrupi aurant. ʒ iv.
Aquæ anisi, q. s. ad. ʒ viij.

M. Sig. Teaspoonful every four hours. Also give, half an hour before each meal a teaspoonful of the syrup of the phosphates of iron, ammonia, quinia and strychnia. This treatment seldom fails give relief after all other means have failed.

THE SOVEREIGN BALM FOR SYPHILIS.

℞ Hydrarg. iodidi vir grs. xij.
Ext. cannal's ind. grs. vi.
Ext. conii grs. xij.
Lupulinæ grs. xij.

M. Div. in pil. No. xij. Sig. One pill thrice a day.

VALUABLE FORMULA IN CEREBRO-SPINAL MENINGITIS

℞ Potassii bromidi ʒ ij.
Fl. ext. ergot. ʒ iiij.
Tinct. belladonnæ ʒ i.
Tinct. aconiti rad. gtt xij.
Curaçao cordial, q. s. ad. ʒ ij.

M. Sig. Dessertspoonful every three hours.

PRESCRIPTION FOR PUERPERAL CONVULSIONS.

℞ Potassii bromidi ʒ i.
Chloral hydrat. ʒ i.
Camphoræ grs. vi.
Tinct. card. comp. ʒ vi.

M. Sig. Take a dessertspoonful every half hour until relieved.

A HINT IN GIVING IODIDE OF POTASSIUM.

A useful hint is revived in the *British Medical Journal*, by Mr. Joseph P. McSweeney. He says: "Sir James Paget was the first to call the attention of the medical profession to the following interesting fact—namely, that carbonate of ammonia greatly increases the therapeutic action of iodide of potassium. I have had extensive experience in the treatment of syphilis, and have tried it with the best results, and find that five grains of potassium, combined with three grains of carbonate of ammonia are equal to eight grains of the potassium salt administered in the ordinary way."

ETHER FOR TAPE-WORMS.

When the anæsthetic power of ether was first discovered, it was only proposed to use it on human beings to render surgical operations painless. Von Heyden, the merciful man who would not inflict pain on any living creature, employed it as long ago as 1830 for killing insects for his collection. Even worms are rendered dormant and helpless by its use. Prof. August Vogel now announces a new application of this anæsthesia for worms—its application to tape-worms. The ether is inclosed in a gelatin capsule and swallowed. The ether is vaporized in the stomach and the worm stupefied, it being then easily removed by any of the usual remedies, against which, when awake, the worm offers a strong resistance.

TO REMOVE DANDRUFF.

Glycerine 1 ounce.
Rose water 3 ounces.
Tincture of cantharides 2 drachms.

THE TREATMENT OF PERTUSSIS BY INHALATION.

By J. WINTHROP SPOONER, M.D.

In the *JOURNAL* dated April 20, 1871, appeared an article by John J. Caldwell, M.D., of Brooklyn, N. Y., entitled "A New and Successful Treatment of Pertussis." The treatment recommended was the following:—

℞ Fl. ext. belladonnæ. M v. to x;
Potass. bromid., ʒ i.;
Ammon. bromid., ʒ ij.;
Aquæ, ʒ ij. M.

Inhale one tablespoonful in the ordinary steam atomizer.

Several successful cases were reported, but since that date I have seen no report of cases treated in that way.

Feeling that we have in this method of treatment

a great addition to the therapeutics of a disease often distressing, and sometimes fatal in its results, I have been led to publish a few cases of my own treated in a similar manner. I am in the habit of using a tablespoonful of the above mixture and filling up the glass of the atomizer with water.

CASE I.—April 1st. A boy of 14 has had the disease for two weeks. The cough has been severe and the whoop well marked. Vomits after nearly every meal. The next record is April 5th, which is as follows: Patient has been at the office daily and used the atomizer. His cough has been less since the first inhalation, and he has whooped but once. The vomiting has ceased, and there is present but a slight cough, which is not distressing.

CASES II. and III. were two children (brother and sister) aged 15 and 12. Well-marked symptoms of whooping cough had been present for two weeks. The same remedy was used for four days, under my supervision, with decided abatement of symptoms. As they were improving, I lent them a hand atomizer, which I afterwards understood they used only for a day or two. The cough lingered for several weeks in both cases, although the whoop was never well marked after the use of the atomizer. In fact, during the latter period, the disease seemed to be a simple bronchitis and nasal catarrh, the result of a series of colds, as the patients were very imprudent.

CASE IV.—A child of 3 years had a cough, with febrile symptoms for ten days. Yesterday, for the first time, had a decided whoop. Vomited every meal to-day. Face is swollen, eyes congested, and, this morning, lids adhered from excessive secretion. The atomizer was used twice daily. Improvement commenced at once. From that date there was no vomiting, countenance resumed a natural appearance, and at the close of a week the whoop had ceased, and in less than a fortnight not the least trace of the disease was present.

CASES V., VI. and VII. were children of one family, aged eight, five and three years respectively. The disease had existed for about two weeks; the symptoms were mild, but sufficient for diagnosis. Treatment was commenced on June 27th. On June 30th, I saw them again, and there was a decided improvement. At the close of one week from the commencement of treatment they were well.

CASE VIII. happened at the same time with the preceding three, and the history was similar.

CASE IX.—A child of 2 years. I saw her first, July 20th. She whooped for the first time that day. On account of her age, there was difficulty in administering the remedy thoroughly, and perhaps it was on that account that for the first few days there was no perceptible improvement. However, the treatment was continued, and, by the 26th, the symptoms had much abated; and, by the 30th, the patient was well. A little syrup of squills and tolu was used in this case, as a palliative, in the first few days, and this is the only case in which any treatment but the inhalation was used.

CASES X. and XI. were a little girl of seven and her mother. With the former, the cough and whoop

had been present for four weeks, and the mother had coughed for two weeks. The health of these patients was delicate, being predisposed to pulmonary disease, and a sister of the lady had died of phthisis, following pertussis, it was said. In both these cases, although the urgent symptoms were relieved, that is, the vomiting ceased and the cough and whoop became much less frequent under treatment, yet the disease went through its regular course in a mild form.

This, then, is the result of my treatment of pertussis by inhalation. When the disease is at all severe, I use the atomizer twice daily until the urgency of the symptoms is relieved, and then continue it once daily until the cough has entirely disappeared. In some cases, I have somewhat varied the proportion of the ingredients, but have made no essential departure from the formula given.—*Boston Medical and Surgical Journal*.

QUININE IN PERTUSSIS.

BY JOHN W. KEATING, M.D.

Believing that those more fortunate members of the profession who are placed by circumstances in a position to note the action of remedies in the treatment of epidemic forms of disease should make public the results of their investigations, I beg leave to add my few drops to the great river of experience.

In the early summer months of this year, while resident physician in the children's ward of the Philadelphia Hospital, I had occasion to see an epidemic of measles and whooping-cough, which diseases occurred at the same time and ran their course together. Owing to this fact, and also that, as all know, the children are none of the strongest, the mortality was rather large,—forty per cent. I was much interested at this time in the controversy as to the possibility, by medicinal means, of cutting short an attack of whooping-cough, and I availed myself of the uncomplicated cases to test the remedies proposed.

From the first, I found quinine to be the most reliable.

The number of cases was large, and, as is usual in a hospital, the number of nurses small, so that I was obliged to abandon the idea of noting the frequency of the paroxysms in every case, and could only limit myself to the few who had their mothers constantly with them, and where the intellectual capacity of the latter enabled them to interest themselves in my experiments.

As an example, I shall narrate one case which was particularly interesting, as the disease was extremely severe, and was uncomplicated. This child was fifteen months old, had been sleeping with its mother, who was an assistant-nurse, in the room with the other children, most of whom had both whooping-cough and measles, and took whooping-cough, the attack of measles being deferred till a later period.

For twenty-four hours the mother carefully noted, by pin-holes in a card, the number of paroxysms. I

then ordered one-half grain of quinine every hour during the day, the same dose to be given every two hours during the night. At the end of twenty-four hours I again had the "coughing-spells" noted. They had diminished in frequency exactly *one-half*. This experiment was often repeated, with the same results, until the end of a week, at which time the paroxysms were very few, but had not diminished in severity.

As an example of the same result in an older child, I may mention the case of a girl about fifteen years of age, who came to Philadelphia suffering from a severe attack of pertussis. The child was particularly annoyed by the severe nocturnal coughing-spells, which nothing seemed to relieve. I placed her upon the quinine-treatment, and the result was really wonderful; I may say that after the first day she coughed but little, and in less than two weeks the disease had entirely disappeared.

In order to avoid repetition, the conclusions which I arrived at are given, as follows:

1. That in most cases quinine, given in solution, will diminish the frequency of the paroxysms of whooping-cough, provided it be given in sufficiently large doses.

2. That quinine can be given to children in proportionally much larger doses than to adults, but that in very young infants it is contra-indicated, as it always causes vomiting.

3. That carbonate of ammonium will in almost all cases relieve the severity of the paroxysms, and consequently should be given in conjunction with quinine when this indication for its use exists.

4. That the dose of quinine for a child of two years should be at least ten grains daily, in divided doses: it should be watched carefully, and increased if it produces no effect. For a child of twelve years begin with fifteen grains daily, and note the effect of each dose. The drug should be frequently discontinued for a day or so, at it seems to lose its effect.

I merely offer this as the result of observation in one epidemic, for I know that the value of this treatment is acknowledged by some and denied by others.—*Philadelphia Medical Times*.

A SAFE AND READY METHOD FOR OVERCOMING INTESTINAL OBSTRUCTIONS.—

Dr. Robert Battey (*Atlanta Medical Journal*, June, 1874) shows that fluid may be entered at the anus, and made to permeate the entire intestinal canal, pass into the stomach, and be vomited from this organ. His proofs are: cases in which he has accomplished this end in the living subject, and instances in which he has passed water *post-mortem*, through the entire intestinal tract. The doctor gives illustrations of the value of these injections in relieving various intestinal obstructions. He thinks that when made by a person with common sense, with a rubber syringe, no harm will result. The amount of water necessary to be injected will vary from fifteen to twenty-four pints.

ON EXAMINATION OF THE HEART

Dr. G. W. Balfour, in the *Edinburgh Medical Journal* remarks:—

From the formation and position of the heart it is obvious that, though we can and may percuss out the whole of the cardiac dullness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dullness vertically and transversely. Increase of the vertical dullness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertained by an extension of these exploratory methods to the liver itself, pericardiac effusion—the former dullness as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dullness upward or downward, without any change in its extent. The apex-beat except in certain abnormal conditions, is, from the formation of the heart the part which extends furthest to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the true apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which extends furthest to the right, and being extremely dilatable, and readily influenced by any obstacles to the onward flow of the blood, transverse dullness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore, of enlargement of the heart chiefly in its auricular region. These therefore are the chief points in regard to which we look for important information from the percussion of the cardiac dullness. Increase of dullness above the third rib indicates, as a rule pericardiac effusion. Increase of the transverse dullness at the level of the fourth indicates obstruction to the circulation. If the apex-beat be displaced to the left and downward, the obstruction is probably aortic, and has primarily influenced the left ventricle; if the apex-beat be not displaced downward, the obstruction is either mitral or pulmonary in its origin.

TREATMENT OF TYPHOID FEVER BY FATTY INUNCTION.

Dr. Löwinson (*Berlin. Klin. Wochenschrift*, 1873, No. 23) has substituted for cold baths, where they are contra-indicated or borne badly, general inunction with bacon, a method which he has employed with success for three years. He has ascertained that, an hour after the inunction, the temperature falls at least 1.8° or 2.7° Fahr., and that the fall is never less than half a degree. He has used the inunction twice a day for one or two weeks, washing the skin every third or fourth day with eau-de-Cologne, which produces rapid evaporation. Since he has followed this

treatment, he has not lost one patient. Schneemann, of Hanover, was the first who pointed out that inunctions with bacon produced a decrease of temperature. It has been proved by experiment that animals can be made to perish from cold by this method.—*London Med. Record* Dec. 17.

TREATMENT OF CYSTIC GOITRE BY EVACUATION AND INJECTION OF THE SOLUTION OF THE PERCHLORIDE OF IRON.

By J. EWING MEARS, M.D.,

Surgeon to the St. Mary's Hospital.

In the *London Lancet* of May 11, 1872, Dr. Morell Mackenzie reported a number of cases of cystic bronchocele which he had treated with eminent success by tapping and injecting with the solution of the perchloride of iron. As stated in the article, the cysts, by this method of treatment, were converted into chronic abscesses, and it was only necessary to conduct these to a termination in order to effect the cure of the bronchocele. The operation is exceedingly simple, and is described as follows. The cyst is first emptied, the trocar being introduced at its most dependent point, through the canula, which is allowed to remain, a drachm or more (the quantity being determined by the size of the cyst) of the solution of the perchloride of iron is injected, and the opening of the canula closed by a piece of cork or wood, cut to the proper size. The solution of iron is permitted to remain in the cyst for three or four days, according to the degree of inflammation which it is thought necessary to produce. At the end of the prescribed time it is withdrawn, the canula, with the opening closed, being retained in position. Poulitices of linseed meal are now applied over the cyst, and when suppuration is fully established the plug in the canula is removed, and free drainage is secured. The canula is not removed until the discharge is limited in amount and its consistence such as to permit its easy exit through the wound. The duration of treatment was reported to vary from three weeks to four months.

Having under my care, at the time of reading this article, a patient who was suffering from bronchocele, I determined to treat it according to the plan so successfully employed by Dr. Mackenzie. Although I was not able, as will be seen, to follow to the letter the instructions given, still the success was complete, and I feel it a duty to report the case which so entirely confirms the plan of Dr. Mackenzie. It gives to the surgeon a method of treatment in these cases, which is at once simple and devoid of danger.

The patient, a female, aged twenty-eight years, first noticed the tumor in the neck some twelve years ago. Its growth had been very slow, and for a period of four years it seemed to remain stationary. During the last year it had enlarged in size until it produced quite a deformity, and at times interfered with swallowing. It was at the time of operation, the size of a large-sized hen's egg, being developed rather more to the left of the median line of the

neck. It was freely movable, rising and falling with the movements of the larynx and trachea in deglutition. Various plans of treatment had been employed to effect its removal. I had already tried simple tapping and the internal administration of sorbefacient remedies, with also local applications.

Owing to the failure to obtain the proper form of trocar and canula, I was unable to secure the latter in the cyst after I had tapped it, and injected a drachm of the solution of the perchloride of iron. The injection was, however, entirely retained by the closure of the puncture made by the small trocar. On the third day symptoms of inflammation appeared, and the neck was quite swollen; slight febrile movement was also present. On the fourth day I reopened the cyst, from which there escaped a small quantity of a viscid, tarry substance. Poulitices were now applied, and in a few days suppuration was established, the pus escaping through the puncture, which was kept open by the use of the probe. In six weeks the discharge ceased and the opening closed, leaving but a slight swelling over the site of the tumor. Three months after, when I saw the patient, the swelling had disappeared, and a small cicatrix marked the position of the cyst.

Dr. Mackenzie has reported to the Clinical Society of London the results of this plan of treatment in sixty-eight cases of cystic goitre and nineteen of the fibro-cystic variety. Of the cystic form fifty-four were cured, eleven did not require treatment, and three were in subjects on whom, by reason of cardiac disease, it was thought undesirable to operate. The results in the fibro-cystic varieties were equally favorable. The advantages of this line of treatment are set forth in several clearly stated conclusions, at which Dr. M. had arrived from a study of his cases. The hæmostatic property of the iron is alluded to as of value in these cases. The frequent occurrence of sloughing after the injection of iodine renders this remedy dangerous, and it should therefore not be employed.—*Medical Times*.

SOME PECULIARITIES OF PNEUMONIA IN EARLY

LIFE. By DR. FARQUHARSON.

After some preliminary remarks, the author stated that the pure lobar pneumonia of children does not differ so much from that of adults as we might suppose, considering the very trivial causes which light up acute fever in early life. Although the beginning is more insidious, the course is much the same, the temperature seldom exceeding 105°, and defervescence taking place from the sixth to the seventh day. The pain, however, is often so decidedly situated in the abdomen as even to simulate peritonitis; the cough is more irritable, and the dyspnoea frequently out of all proportion to the extent of lung tissue involved; it being suggested that this may sometimes be of a nervous character, as in hysterical women. The most marked distinctive peculiarity, however, is the tendency of the inflammation to attack the upper lobes by preference, and even

when it reigns elsewhere it almost invariably creeps insidiously upwards, without rise of temperature or other special symptom. Whether this peculiarity of site necessitated a lowering of type, as in the adult, the author has been unable to decide. Coming to the physical signs, it was observed that the true crepitant rale is seldom observed, that bronchial rasping is the first stethoscopic indication, and that the dulness to percussion is attended by a peculiarly well-marked tympanitic percussion note often intervening between the healthy sound and absolute dulness, and differs from the same symptom in the adult by re-appearing during the stage of resolution. After various other points had been passed in review, and a word said on prognosis, the author referred briefly to treatment, and dwelt specially on the value of poultices in restricting the movements of the lung, and giving rest to the affected tissues.

Dr. W. H. DAY congratulated Dr. Farquharson on his interesting and valuable contribution to the pathology of pneumonia in children. He said no disease was more variable in its extent and severity. The pulse and respiration bore no corresponding relation to each other. He had lately seen a case of acute pneumonia in a boy, *æt.* 10, where the lung rapidly passed into consolidation from base to apex, without cough or expectoration, the pulse reaching 140 and the respiration never exceeding 30 per minute. Not the faintest trace of breathing could be detected in the affected lung. The heart's sounds were very audible throughout the left chest. There had been considerable abdominal pain, which was due to the extension of pleurisy on the left side. In some cases of this kind the abdominal symptoms have resembled and been even mistaken for peritonitis. Dr. DAY thought pneumonia was a disease that often recovered under rest and hygienic treatment alone, without any aid from drugs. No two cases were suited for the same treatment—there were always prominent points of difference in every case. Whatever plan was adopted, the constitutional treatment should be carefully kept in view for pneumonia of the apices of the lungs was generally observed in tubercular subjects.

Dr. GODSON drew attention to the frequency of the pain being referred to a distant part which was apt to mislead in the absence of cough or pains in the chest as had occurred to him lately in the treatment of a boy suffering from commencing pneumonia where the only complaint was acute pain in the left hypochondrium.

Dr. MILNER FOTHERGILL said that, while admiring the paper as a whole, he would much have liked to have heard some further remarks on treatment from Dr. Farquharson. The treatment of disease in children was one of the divisions of practical medicine with which the profession was really least familiar. Some avoided antimony unduly, while others used it freely—perhaps too freely. Children do not stand a depressing treatment well, and, on the other hand, it is often difficult to make the friends see the nearly impending necessity for a stimulating plan of treatment by which threatening perils may be avert-

ed, or to overcome their fear of increasing the existing inflammation. Consequently the treatment of infantile disease had become little more than the name. It was very desirable that some more definite ideas should exist as to the principles of treatment in diseases of children.

FORMULÆ FOR THE TROUBLESOME COUGH OF PHTHISIS.

R. Potassii bromidi,
Potassæ chloratis, } aa ʒ iss.
Ammoniæ muriatis, }
Syrup. tolutani, ʒ iv. M.

Tablespoonful every two or three hours.

R. Tincturæ opii camphorata, ʒ i.
" belladonnæ, ʒ i.;
" hyoscyami, ʒ ij.;
Spiritus lavendulæ comp., ʒ i. M.

Ten drops on a lump of loaf sugar every hour until cough is relieved.—*Charity Hospital, New York.*

FOR CONSTIPATION.

R. Aloës Socotrinæ, gr. xv.
Ext. anthemidis, gr. xv.
Ext. rhei, ʒ ss.
Zingiberis pulv., gr. viii.—M.

Divide into twenty pills; one or more at night as required.—*Medical Times.*

SOOTHING APPLICATION IN HERPES ZOSTER.

R. Collodion, ʒ j.;
Morphiæ muriatis, gr. viij. M.

To be painted over the vesicles without breaking them open.—*Medical Times.*

FORMULA FOR HAY FEVER.

R. Potassæ chloratis, gr. xx.;
Morphiæ sulphatis, gr. iv.
Aquæ destillatæ, ʒ ij. M.

This mixture, to be used by means of the atomizer is recommended by Dr. Hoover as giving immediate relief, and producing a complete cure within a few days.—*American Journal of the Medical Sciences.*

TOPICAL APPLICATION IN PAINFUL DENTITION.

R. Syrup of tamarinds, ʒ ijss.;
Infusion of saffron, ʒ ij.;
Honey, ʒ ijss.
Tinct. (essence) of vanilla, gtt. iv. M.

Rub gently over the gums with the finger or rag. An application of a similar character is the following:—

R. Saffron (powdered), 4 to 6 grs.;
Honey, 2 to 3 drachms M.

Glycerine may be substituted for the honey.

HÆMORRHOIDS.

Dr. Wm. Colles, Dublin, lately injected twenty minims of tincture of perchloride of iron into each internal hæmorrhoidal tumor. No traces could be

found some weeks afterward, by speculum, except nodules, of the size of shrivelled currant. The case had resisted Dr. Houston's application of fuming nitric acid.—*British Medical Journal*, June 27, 1874, p. 849.

A SIMPLE METHOD OF REDUCING THE DISLOCATION OF THE FOREARM BACKWARDS.

Dr. Alexander Murray writes to the *New York Medical Record* of July 1, 1874, that he has reduced five cases of the above-mentioned dislocation by the method to be described.

Supposing the dislocated arm to be the left. Dr. Murray takes his position at the outside of the dislocated arm, and places the palm of his right hand to the patient's left, dove-tailing his fingers between each of the patient's. In this way, a firm hold is secured for extension. He then places his elbow as a fulcrum and for counter-extension on the forearm in front and against the lower end of the humerus, and by a steady pressure downwards and backwards, and at the same time flexing the forearm towards the shoulder, in a few minutes the luxated bones slip into their natural places. Other dislocations of the elbow can be reduced by the same method.

TREATMENT OF PERTUSSIS.

John J. Caldwell, M.D., Brooklyn, N.Y., says in the *Boston Medical and Surgical Journal*:

My treatment of whooping cough may, or may not, be entirely new to the profession, viz., local medication by the spray atomizer; my favorite medicinal agents being bromide of ammonium and of potassium, together with liquid preparation of belladonna. Believing in Niemeyer's views of the pathology of this disease, "that whooping cough is a catarrh of the respiratory mucous membrane, combined with intense hyperæsthesia of the air passages," I made my medication directly to the parts affected, and the results have been so satisfactory and rapid that I venture to submit the following cases for your journal:

Cases I. and II. were my little daughters, aged respectively four and two years. They contracted the disease in July, 1869, it being at that time prevalent in our city, and in their cases the malady was decided and distressing. After exhibiting the usual remedies with little or no relief, I resorted to the above treatment, as an experiment. Getting up steam and placing my little ones upon my knee, in such a position that the spray should play right into the face; as a natural consequence they began crying, and that was just what I expected, and what I most desired, for the deep inspirations would carry the bromides and belladonna home to the local trouble. My formula is as follows:

R Ext. belladon. fld. gtt. v. to x.
Potass. bromid., 3 i.
Ammon. bromid., 3 j.
Aquæ distil., 3 ij.
M. Ft. solutio.

Of this we use a tablespoonful at each application.

July 11th.—Children much better; the intermissions of greater space. Made another application.

14th.—Attacks very mild; scarcely any whoop. Continued treatment.

16th.—Whoop and spasmodic action gone with a slight cough, which passed away in a few days.

Aug. 24th—Was called across the street to see my neighbor's children, three in number; found them suffering from the same affection. The father informed me the distress was so great and constant that the children could not rest, and were becoming very weak and emaciated; that their physician did not relieve them, and that, as the weather was so oppressive, he felt fearful for their lives. I administered the spray treatment to them in turn, while they were sitting upon the father's knee, as before mentioned. They called on the following succeeding days, viz., 25th, 26th, 27th and 28th, and on the first of September when I discharged them cured. Sept. 9th, Mrs. McG. called at the office with her little son, æt. 2 years afflicted in the same manner. After three or four applications we had similar happy results.

TOPICAL APPLICATIONS IN OTORRHOEA.

M. Ménière in a clinical lecture on otorrhœa gives the following formulæ as convenient and useful in many cases. Although they cannot always be expected to exercise a curative influence, yet joined to appropriate internal remedies they are in a high degree serviceable.

In "earache" one or two leeches are to be applied behind the ear, which may afterwards be covered with a poultice sprinkled with laudanum. At the same time two or three drops of the following solution may be dropped into the external meatus:

R Aconitiæ, gr. i;
Aquæ, f 3 v.—M.

This solution gives better results than laudanum, chloroform, etc., so frequently used. Should the pain be intense, general anodynes may be employed. In chronic otorrhœa the external meatus should be kept thoroughly clean by frequent injections of tepid water, and may in addition be painted once a day with the following solution:

R Acid. carbolic., gr. i;
Glycerin., ʒ i.—M.

This solution acts very satisfactorily in modifying the character of the secretion; it is sometimes necessary to increase the proportion of carbolic acid. A ten per cent. solution of nitrate of silver painted upon the internal meatus will often serve a similar purpose. M. Ménière frequently employs the following solution in cases of chronic discharge from the ear. It has the advantage that the patient can apply it himself:

R Zinci sulph., gr. iv;
Glycerin., f ʒ ii;
Aquæ, f vi.—M.

Three to six drops are allowed to fall into the ear, which has previously been thoroughly cleansed with

tepid water. The head is to be retained in the inclined position from eight to twelve minutes.

The following solution may be used when great vascularity of the bottom of the ear exists, even where there is perforation of the tympanum

R Plumbi acetat., gr. ss. ad i;
Aquæ, f ʒ ss.—M.

SULPHATE OF CADMIUM IN BLENNORRHAGIA.

M. Gazeau recommends injections of this salt instead of those of sulphate of zinc, on account of its more highly stimulating and astringent qualities. In the acute stage the injection may be made of the strength of one-half grain to the ounce of water, to be used every two hours. Copaiba may be administered for the first few days, and cases are frequently cured in five or six days. In chronic blennorrhagia the following combination should be used:

R Cadmii sulph., gr. xvi;
Bismuth. subnit., gr vss;
Aq. dest., ʒ iiii.—M.

Sig.—Inject after each urination.

THE USE OF THE TOW PESSARY.

Dr. Martin says, in the *British Medical Journal*:

In August, 1873, Mrs. A. requested me to attend her. She complained at that time of great pain across her loins and a bearing down of the womb. Upon inquiry, she informed me that she had had a family; that her last confinement was a tedious one, requiring the use of instruments; and that all her former cases had been good ones, requiring but little attention from her medical attendant. Upon examination, I found the uterus a little extruded, being easily returned, but at once extruded after the removal of the fingers from the vagina. I advised her to rest in bed or upon her couch for the time being. On the morrow I called to see her again, and for the want of a proper pessary, I placed a quantity of tow, covered with a piece of well-greased lint, within the vagina, having previously returned the uterus to its proper position. I called again the third day, and found my patient much better, almost free from pain, and no extrusion of the uterus. I removed the pessary, and replaced it by a fresh one made in the same way as the first. After the lapse of three or four days, I again removed the tow, replacing it this time by a mass shaped after the manner of the oval boxwood pessary, covered with gutta percha tissue in place of the lint. This I allowed to remain for four or five days, requesting my patient to try to remove it herself if it should cause any pain. During the time she was wearing the pessary, I advised her to walk as little as possible, and to rest upon her couch most of the day. To regulate the bowels I gave one or two compound rhubarb pills at bedtime occasionally, and as a tonic, a little quinine and iron three or four times daily. I continued this

treatment for a few weeks, to the great relief of my patient. She now goes about her duties as a housewife with ease, at times only feeling a little pain across her back, but no sign of any prolapse. Should a similar case come under my care, I shall adopt the same plan of treatment.

TANNATE OF QUININE IN CHRONIC ALBUMINURIA

Bouchardat (*L'Abeille Méd.*, July 6) says, "I am in the habit of employing the sulphate of quinine in chronic albuminuria according to the method of Dr. Devouves, and occasionally with un-hoped for success. The dose I employ is eight grains, in a cup of strong coffee, three times a day. This is continued for six days, and at the end of that time scammony or some similar purgative is administered. After one or two days of rest the patient is again placed on the use of quinine; and I have frequently continued this treatment for more than a year. The food of course should, during this treatment, be highly nutritious. Lately I have been substituting the tannate of quinine for the sulphate, in doses of ten to twenty grains, three times in twenty-four hours, given in a similar manner. The digestive apparatus supports the tannate better than the sulphate." *Medical Times*.

GUARANA IN CHRONIC RHEUMATISM

Mr. E. A. Rawson states (*Irish Hospital Gazette* April 15, 1874) that when suffering severely from lumbago, and other remedies failing, he tried guarana as an experiment. He took fifteen grains in hot water, with cream and sugar, and experienced entire relief from pain for twenty-four hours. When the lumbago returned, he took another dose with the same result. "I gradually," he says, "increased the dose to forty grains, and took it regularly once a day for about a week. The lumbago disappeared. I gave up the guarana, and in a few days the pain in the back returned. A forty-grain dose removed it, and it did not return for several days afterward. Now, whenever it does, I have my remedy at hand. During the last month I have experimented largely with guarana on a variety of patients, rich and poor. The results vary. When the pain is acute, coming on with sharp stings, guarana acts like magic; when it is of a dull, aching character, the drug is slower in its action, and several doses must be taken before any decided benefit can be perceived.

"I have come to the following conclusions, viz.: that whenever the fibrous envelopes of nerves, the aponeurotic sheath of muscles, the fasciæ or tendons, are the parts affected, guarana gives, if not instantaneous, at least very immediate relief, which will last from twelve to twenty-four hours; and I confidently expect that perseverance in the use of the drug, gradually increasing the dose up to forty grains, will entirely remove any of the above-mentioned kinds of rheumatism.

"Of the good effects of guarana on nervous hemi-crania there is no doubt; and I trust that it will prove in other hands as valuable against rheumatism as it has in mine."

THE TREATMENT OF VENEREAL BUBOES.

Sauszinski (*Centralblatt für Chirurgie*, No. 6, 1874) has adopted the method of opening buboes by a small perforation, as was advised by Ricord, and later by Zeissel, and has tried it in eighty-two cases of this complication of venereal disease. The bubo is opened with a narrow bistoury, the pus is pressed out through the wound, and it is then dressed with a graduated compress moistened with lead water, over which a small sack filled with sand is laid. The whole dressing is then fastened by means of a Spica bandage, and the patient is confined to his bed for the first few days. At first the compress is renewed twice during the day, but later, when suppuration has diminished, only once, the wound being washed with warm water at each dressing. The sack of sand is used until the edges of the wound become attached to the tissues beneath, when the dressing is changed to charpie and adhesive strips. The advantages claimed for this method of treatment over that by free incision are that the risks of having distinctive ulcerative processes in the wound are much less, and the time needed for its closure is shortened from forty-nine to twenty-eight days.—*Philadelphia Medical Times*.

PHOSPHORUS HYPODERMICALLY.

In Dr. H. C. Wood's wards in the Philadelphia Hospital phosphorus has been given hypodermically in a number of cases; two to three drops of the oleum phosphoratum (Prus. Pharm.) being given in eight to ten drops of glycerin. No serious local irritation was produced in any instance.

IODINE CAUSTIC

Is prepared by dissolving four grammes of iodine in eight grammes of glycerine. It is used in lupus by applying it once every other day, and covering the parts with gutta-percha. This treatment is continued for several weeks.

REMEDY FOR TOOTHACHE.

- B. Carbolic acid, saturated solution.
Hydrate of chloral, saturated solution.
Camphorated tincture of opium.
Fluid extract of aconite aa fl. ʒj.
Oil of peppermint fi. ʒss. M.

Apply by saturating a pledget of cotton (or preferably a small piece of sponge), and pack closely into the cavity of the decayed tooth.—*Dental Cosmos*.

ANTI-CANCEROUS SOLUTION (Giorddans.)

R Acid. citric., ʒi:

Aquædestillat., ʒi ʒii.

M.—Pieces of charpie soaked in this solution and laid upon cancerous ulcerations act as a detergent and delay the progress of the disease.

Dr. EBSTEIN recommends the use of atropia in salivation. In his hands one-fiftieth grain daily, increased in the course of eight days to one-twelfth grain internally, had a decided effect in lessening salivation in a case of hemiplegia. Hypodermic injections of the same drug in the region of the neck had a still more favorable effect.

VOMITING CONTROLLED BY TOBACCO-SMOKE.

A young girl not pregnant, suffering from severe and uncontrollable vomiting, under Dr. Beaumetz's care at the Hôtel-Dieu, was, after the ineffectual trial of various remedies, ordered to smoke a cigarette after each meal. This, so long as its use was persisted in, seemed to check the vomiting entirely.

TREATMENT OF HOOPING-COUGH.—

Wild claims that he can cure every case of hooping cough within eight days by the following treatment: The patient is not to leave room, and at every access of coughing is to before his mouth a small piece of cloth folded several times, and wet with a teaspoonful of the following solution: ether, 60 parts; chloroform, 30 parts; turpentine, 1 part.—*Deutsches Archiv. f. Klin. Med. Allg Wien Med. Ztg.*, 45, 1874.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

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

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MONTREAL, JANUARY, 1874.

WESTERN HOSPITAL, MONTREAL.

Within the past year and a half we have more than once alluded to a project which was on foot to establish in the western portion of Montreal a new hospital, to be built with the latest improvements and after the most improved models. Like nearly all new movements, its inception met with many difficulties, and, we regret to say, with much opposition from some who seem to imagine that they have special license to run the whole charitable machinery in Montreal. Its promoters, however, were not discouraged; on the contrary, believing that the proposed charity was a needful one, they quietly worked

away, and when its opponents thought they had smothered its birth, it suddenly came before the public with the report and the subscription list, both of which we publish below. On the 29th of December last, a meeting of the Governors and Subscribers was held in the Mechanics Hall, Major H. Mills the President of the Corporation in the chair. Dr. Wilkins having been appointed on the out-door staff of the Montreal General Hospital, and having resigned his position of Secretary Mr. James Coristine was elected in his stead. Mr. Coristine read the report of the Committee appointed to secure a site for the hospital, which is as follows:

" Messrs. William Workman and James Coristine, in pursuance of the resolution appointing them a committee to purchase a site for the Western Hospital, waited on Mr. O. W. Stanton, land agent, and acquired by purchase the block of land forming the north-east corner of Dorchester street and Atwater avenue, with a surface of 79,436 square feet, for the sum of \$30,300, an abatement of \$200 on the original price.

The conditions of payment: \$5,300 cash on passing the deed, \$7,000 one year later, and the balance of \$18,000 in five years, interest payable half yearly, 7 per cent., the vendor Robert Hamilton, Esq., of Quebec, agreeing in the sale to restrict the hypothecque to a fixed sum per superficial foot, 40 cents on the portion fronting on Atwater avenue and Dorchester street, and extending back 120 feet; on the remainder 20 cents per superficial foot.

During the absence from Montreal of Mr. Coristine, the deed was presented by the vendor for completion to Mr. Workman, who generously advanced the first instalment of \$5,300, besides the smaller necessary disbursements, and has since held the land in trust for our Corporation.

The site is peculiarly adapted for the purpose; a somewhat irregular square block of land in a most salubrious position, bounded on the south by Dorchester street; on the east by a street 60 feet wide; on the west by Atwater avenue, 100 feet wide, and on the north by a new park from which it is separated only by a street.

The aspect towards the mountain will be unobstructed and unbroken in the future, as it is now which is believed to be equivalent to a site of three fold the surface of our property on a less favoured spot, as we enjoy without cost a large open space, which has lately been laid out and planted with trees, and in a short time will be very attractive.

Atwater avenue, 100 feet wide, which forms the

western boundary, extends in a straight line to the river, piercing the future manufacturing centre of Montreal, is close of access to the canal, railway yards and workshops, where occur the largest percentage of accidents (mostly fractures and wounds) treated in our Hospitals. Owing to the avenue being in a direct line, the distance to the manufacturing centre is inconsiderable, an important feature, as prompt treatment, owing to the short distance, will often save patients much suffering. The approach for the greater number of patients will be over that highway when completed, which will rise with a gradual incline from the lower level of St. Antoine street, passing under Dorchester street, till the higher level is reached beyond.

The facilities for drainage are exceptionally excellent, as the large main sewer for the high levels of the western part of the city is by way of Atwater avenue, dipping with a considerable decline from the high ground of Dorchester street to the lower plateau, providing an exemption from the poisonous gases generated by stagnant sewerage. The land acquired is ample for the erection of six model pavillion hospitals or hospital wings, self-contained, with accommodation for three hundred patients. The wings would vary from 80 to 100 feet in length by a width of about 40 feet, three stories, including Mansard roof, ceilings high, to allow plenty of breathing space; each wing well lighted with windows on the four sides, the buildings at least 75 feet apart, in order that pure air and sunshine shall reach every part.

The hospital will be a great amelioration for reasons stated, and will meet a want daily becoming more urgent on account of the rapid growth of the city, particularly westward.

Thirty years ago, with a population of less than 40,000, this city had two General Hospitals; with a present population of 130,000, we have but two, one of which has been rebuilt on a larger scale and fine site; the other occupies the original site, somewhat enlarged, but scarcely modernised, notwithstanding which it is fearfully overcrowded, which prevents a proper separation of diseases, and has occasionally resulted in the death of persons visiting it for the treatment of trifling ailment by contracting fatal contagion.

T. M. Taylor, Esq., in moving the adoption of the report, referred to the great work done by that noble charity, the Montreal General Hospital, which, though venerable in years, was still as vigorous as ever, and capable of doing still a noble work in the

future. He felt, nevertheless, in view of the large increase within the last few years, particularly westward, and a probably still greater increase in the future, that such an Institution as the Western Hospital was an imperative necessity, and predicted for it a grand career of usefulness.

The motion was seconded by John C. McLaren, Esq., and carried unanimously.

The officers of the Society were then authorized to receive the land for the Corporation, after which the following list of subscribers to the Western Hospital was read. It was stated that nothing like a general canvass had been undertaken, the subscriptions secured had been obtained by a very partial canvass of a few friends. The subscription of Major Mills is for the erection of a wing, the others for land and general purposes.

Major Henry Mills, \$12,000.

William Workman, \$5,000.

Henry Mulholland, \$1000; John L. Cassidy, \$1000; Stanley C. Bagg, \$500; James Coristine, \$500; Henry Judah, \$500; Hugh McLennan, \$500; R. J. Reekie, \$500; A. A. Ayer, \$300; W. S. Evans, \$300; A. F. Gault, \$300; E. K. Greene, \$300; William Macdonald, M.D., \$300; W. B. Moccock, \$300; A. W. Ogilvie, \$300; George Stacy, \$300.

Wm. Almour, \$200; Jas. Benning, \$200; John Costigan, \$200; C. P. Davidson, \$200; Jas. Ewan, \$200; Wm. Ewan, \$200; Robert T. Godfrey, \$200; M. Hannan, \$200; Haeusgen & Gnaedinger, \$200; Jas. Hutton, \$200; Jas. Jack, \$200; John McLennan, \$200; Robert Moat, \$200; Laird Paton & Sons, \$200; Hon. A. D. Smith, \$200; J. K. Ward, \$200; Trenholm & McLaren, 200.

The following are subscribers of \$100.

Andrew Allan, E. F. Ames, Wm. Angus, E. Atwater & Co., R. B. Angus, John J. Arnton, John Birks, C. Bailey, S. W. Beard, C. J. Brydges, George Brush, Robert Brodie, Geo. Bishop, M. Babcock, Jas. Brissette, Jos. Barsalon, Campbell Bryson, P. D. Browne, Waiter Burke, John C. Becket, John Bell, M.D., A. Cantin, C. A. Cantin, J. B. Cantin, Kenneth Campbell, Francis W. Campbell, M.D., S. S. Campbell, J. Crathern, Thos. Cramp, E. M. Copeland, Alex. Coultry, Robert Campbell, James Cassils, George Childs, H. D. Cowles, Thos. Caverhill, Wm. Clendinneng, Wm. Donahue, G. A. Drummond, C. D. Edwards, J. S. Evans, Robert Forsyth, J. A. Gillespie, E. K. Greene, Wm. Gardner, M.D., Chas. H. Gould, Robert Gardner & Son, D. H. Henderson, Joseph

Hickson, J. L. Hardman, Geo. N. Hall, John S. Hall, A. C. Hutchison, Randolph Hersey, Alex. Holmes, J. S. Hunter, Phillip Henry, E. Hudon & Fils., Jonathan Hodgson, Hon. L. S. Huntingdon, Sir F. Hineks, H. R. Ives, W. F. Kay, Wm. Kennedy, R. A. Kennedy, M.D., Anthony Kerry, B. Levin & Co, Benjamin Lyman, M. C. Mullarky, F. B. MacNamee, S. H. May, D. McEachern, John Molson, John C. McLaren, John Martin, Joseph Martin, John Murphy & Co., Wm. McLaren & Co. Jas. McDougall, John Moat, W. C. Munderloch & Co., Lord, Magor & Munn, J. Meyer & Co., McDougall & Davidson, — Moodie, E. J. Maxwell, D. J. Rees, H. A. Nelson, Wolfred Nelson, M.D., Prowse Brothers, Thos. Parker, J. A. Pillow, A. T. Patterson, Peck, Benny & Co., Thomas Pringle, Richard Patton, G. W. Reed, T. Robertson, Jackson Rae, M. P. Ryan, M.P., Robt. Reid, Wm. Rodden, Geo. F. Siack, M.D., Chs. Stimson, C. C. Snowdon, H. Shorey & Co., O. W. Stanton, David Sinclair, J. H. Stearnes, Henry J. Shaw, Henry Starnes, James Shearer, A. A. Stevenson, John C. Spence, Wm. Smith, Jas. Simpson, Thos. M. Taylor, Jas. W. Taylor, E. H. Trenholme, M.D., Wolferstan Thomas, Jos. Tiffin, Tiffin Bros., I. F. Scripture, C. W. Woodford, Geo. Wilkins, M.D. Waller & Co., Chs. H. Walters, Ogilvie & Co., Jas. O'Brien.

A second meeting of the Governors was held on the 5th February, when it was announced by the Secretary, that the first instalment of the land purchase had been paid, and the property was now in the possession of the Corporation of the Western Hospital. The following additional Subscribers were received and were duly elected Governors; Sir Hugh Allan \$500, A. C. Hutchison \$400 (additional,) McLachlan Bros. & Co. \$300, B. Kortosk \$100, F. R. Whiteside \$100, Robert Mitchell \$100, Robert Miller \$100, Sawtell Bros. \$100, George Wait \$100, C. C. Claggett \$100, Alfred Perry \$100, James Douglass \$100, Charles McAdam \$100, Jas. Muirhead \$100, Douglas Kirk & Co. \$100, Robert Dunn \$100, William Ross \$100.

We think that with the above subscriptions the project is assured of success.

THE LATE DR. SUTHERLAND.

The accident to this number of the *Record* enables us to announce the death of Dr. William Sutherland, for many years Professor of Chemistry in McGill College, which melancholy event occurred on Tuesday morning, the 9th February. Hundreds

in the profession throughout Canada will read this announcement with deep regret. In our next issue we will give a lengthy notice of our departed friend.

CANADIAN MUTUAL BENEFIT ASSOCIATION.

Among our advertisements will be found one, announcing the full and complete organization of this Association, with its head-quarters at Toronto. Of the need there was for such an institution, every member of the profession is, unfortunately, but too painfully aware. The remuneration afforded to medical men, (especially in the country districts,) is not such that a competency can be secured—at all events until after many years of toil. Constantly surrounded by disease, how many chances of an early death the physician has, before such a period arrives. To all in the profession this Society enables a protection to be thrown around their families, should death occur; if sickness prevents attendance on professional duties, again the Association affords relief in the shape of benefits. The names of the officers are those of men who are everywhere recognised as prominent members of the profession, and regarding whose reliability there is no question. Their active interest in the work is, in our opinion, a safe guarantee of its success. We cordially draw the attention of our readers to the advertisement.

TO OUR EXCHANGES.

We do not know whether our Post Office Department or that of the United States be at fault, or whether the fault lies with the publishing houses of our Exchanges, but we receive many of them very irregularly, and some never reach us at all. For instance the *Chicago Medical Journal*, to which we have regularly forwarded a copy of the *Record* since its first issue, has never sent us a copy in return. We, however, got a stray number of it addressed to the old *Canada Medical Journal*, and as it publishes a list of exchanges received, we are somewhat surprised to notice that it does not mention our *Record*, which, as we have stated, has been regularly mailed to it since our first issue. The *Cincinnati Lancet and Observer* has reached us twice in two years. The *Chicago Journal of Nervous and Mental Diseases* honoured us with its first number only. *New Remedies*, published by Wm. Wood & Co., New York, give us a visit once in eighteen months, and the *American Journal of Obstetrics*, published by the same firm, once a

year. About once in five months the *New York Medical Journal* puts in an appearance; and the *Pacific Medical Journal*, although the *Record* has been sent from the first, has not favored us yet with an exchange. The following Journals have been on our Exchange list from the very first, but we have yet to receive the first copy of any of them. If, after this special notice on the subject, they still fail to put in an appearance we will strike them off: *Journal of Medicine*, Savannah; *Medical and Surgical Journal*, New Orleans; *Glasgow Medical Journal*; *Medical Journal*, Louisville, Kentucky; *Medical Journal*, Charlestown; *Journal of Medicine*, Nashville; *American Practitioner*, Louisville Kentucky; *Medical Journal*, Buffalo.

QUEBEC PHARMACY BILL.

We learn just as we are going to press that the Bill has passed its third reading in the Legislative Assembly. We have only time to say that we warmly congratulate the Druggists of this Province upon the success which has crowned their persevering efforts to be able to legislate or control their own affairs. We believe that the future will prove that those medical men who aided them in the work, acted the part of wise and liberal men.

TO OUR SUBSCRIBERS.

We have to inform our subscribers that our very late issue is due to an accident, just as we were about to go to press.

Please remit amount of subscription due.

BIRTHS.

At Point St. Charles, on the 6th January, the wife of Dr. Rodger, of a daughter.
In this city, on the 21st December, the wife of Dr. C. Dubuc, of a daughter.

MARRIAGES.

At Port Rowan, on the 11th December, S. P. Emes, Esq., M.D., of Drayton, to Anna Amelia, daughter of the late Andrew McLennan, Esq., of Port Rowan.

DIED.

At St. John, New Brunswick, on the 1st of January, at the age of 71 years, William Livingstone, Esq., M.D., Ed.
Dr. Livingstone was one of the oldest residents of St. John. He was an accomplished physician and a clever writer, and his memory will long be cherished. He leaves a wife and one daughter to mourn his death.
On the 25th November, of malignant sore throat, Sarah Esther, youngest daughter of Dr. Boddington, Sparta, aged 1 year 3 months and 10 days.
On the 26th November, of convulsions following scarlet fever, Amy Winnifred, eldest daughter of Dr. Boddington, Sparta, aged 2 years 11 months and 16 days.
In Raleigh, on 4th December, Charlotte Wade, beloved wife of James Walker, and daughter of the late Hugh Wade, M.D., of St. Thomas, Ont., a native of Putney, Eng., aged 48 years.
At Point St. Charles, Montreal, on the 26th January, Charles Rodolphus Wickham, youngest son of Dr. Fuller aged 1 year 3 months and 16 days.