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Original Communications.

VASO-CONSTRICTOR AND VASO-DILATOR NERVES.

A. S. FRASER, M.D., SARNIA.

The nervous energy necessary to the activity of the heart and muscular coats of the arteries is furnished in two ways, viz., (1) by intrinsic ganglia which are situated in the substance of the heart and distributed along the coats of the arteries. (2) By means of fibres from the large sympathetic ganglia. None of these are capable of reflex action, and as it is evident that the calibre of an artery is frequently determined by events occurring at a distance from the vessel, cerebro-spinal nerves must be in some way concerned in regulating the arterial tension in different parts of the body.

A question which medical practitioners are frequently called upon to decide is this—are constricting impulses carried to the coats of the arteries in response to impressions received by sensory nerves, or do cerebro-spinal nerves convey influences which counteract the tonic impulses constantly being supplied to the vessels by the sympathetic ganglia?

The evidence in favour of the view that vaso-constrictor nerves belong to the cerebro-spinal system is chiefly derived from the results of experiments which show that under certain circumstances the stimulation of afferent nerves causes a rise in the general blood pressure, and that the divi-

sion of certain rami communicantes between the last cervical or first dorsal ganglion and the spinal cord permits the vessels of the head and neck of the same side to dilate.

The rise in the general blood pressure which occurs in the above-mentioned experiment is said to be due to the reflex action of a vaso-motor centre in the medulla oblongata. But that such is the case, at least in the sense that vaso-motor impulses proceed directly from the medulla to the muscular coats of the blood vessels, is open to doubt. When an afferent nerve is stimulated, the vessels of a corresponding area dilate, and there is a rise in the general blood pressure. This rise, however, is seldom noticeable except when the animal operated upon is under the influence of urari, when the animal is under chloral there is a fall in the general blood pressure. With regard to the effect upon the vessels of the head and neck which follows the division of the rami communicantes, it may be said that it is not quite certain that these nerves belong to the cerebro-spinal system.

In considering the arguments in favour of the theory that the sympathetic nervous system furnishes all constricting impulses to the blood vessels, and that cerebro-spinal nerves carry impulses which invariably restrain the action of the sympathetic nerves on the vessels, our attention is first directed to the influence of the intrinsic ganglia in maintaining the activity of the

heart and the tonicity of the arteries. When the heart of a cold-blooded animal is removed from the body, it will continue to beat for some time; if, however, it is cut into pieces, it will be found that only such pieces as contain ganglia will continue to move. If all the nerves going to a vessel are cut, and the cut ends separated so that they cannot unite again, the dilation which results soon disappears, and the vessel resumes its tonicity. It may then be made to contract or dilate to a limited extent by applications made directly to its walls.

In cases where the stimulation of an efferent cerebro-spinal nerve causes dilation of blood vessels it is impossible to imagine that such an effect could be produced in any other way than by impulses passing along the nerve to the local ganglia and inhibiting their action upon the vessels. When the nerve of a muscle is divided and its peripheral end stimulated, contraction of the muscle and dilation of its vessels follow. Now, if the muscle is paralysed by urari, dilation of the vessels still occurs when the nerve is stimulated. Many examples of the inhibitory influence of efferent cerebro-spinal nerves upon the local ganglia of the blood vessels might be mentioned.

The submaxillary gland receives its nervous supply from two sources, viz., fibres from the cervical sympathetic, which reach the gland along the submaxillary artery, and the chorda tympani, which reaches the gland along Wharton's duct. It is evident that the tone of the vessels of the gland is maintained, at least to some extent, by means of the sympathetic fibres, as division of these fibres permits the vessels to dilate, and when the peripheral stumps are stimulated the vessels contract. If an irritant is placed on the tongue the vessels dilate, and the same effect is produced by dividing the chorda and stimulating the peripheral part.

Two circumstances in connection with the antagonistic action of the sympathetic and

chorda upon the vessels of this gland are especially worthy of notice. In the first place after division of the sympathetic fibres, the dilation of vessels which follows is markedly increased by stimulation of the chorda; and in the second place, stimulation of the chorda will not cause dilation of the vessels if the sympathetic is stimulated at the same time.

All the large nerve trunks in the body are composed partly of sympathetic and partly of cerebro-spinal fibres; and we find that when one of these nerves is divided, and its peripheral stump stimulated, the result will vary according to circumstances; for instance when the sciatic of a mammal is divided and its peripheral part at once stimulated, the vessels of the foot contract. In a short time a weak stimulation will cause dilation of the vessels, while a strong stimulus will still produce contraction, after a time, however, stimulation to any extent will cause the vessels to dilate. From this it is evident that the constrictor degenerate more rapidly than the dilator fibres, and it is reasonable to suppose that the sympathetic being softer and less likely to resist destructive influences would degenerate more rapidly than the medullated cerebro-spinal fibres.

The dilation of vessels is probably a constant result of the stimulation of cerebro-spinal nerves when they are free from sympathetic fibres, and, it is no doubt, for this reason that cutaneous nerves are invariably vaso-dilators.

The nature of the anatomical connection between the cerebro-spinal nerves and the sympathetic ganglia, indicates the paths by which inhibitory impulses reach the latter. Each spinal nerve is connected with a neighbouring sympathetic ganglion in two ways. A prolongation of the sympathetic ganglion being attached to the ganglion on the posterior root of the spinal nerve, and fibres from the anterior root of the spinal nerve going to the sympathetic ganglion and accompanying its fibres of

distribution. It is, therefore, clear that an impulse passing along a sensory nerve may, by means of the ganglion on the root of the latter, overflow so to speak, into the neighbouring sympathetic ganglion. And the same impulse may be reflected along the fibres from the anterior root of the nerve, which accompany the sympathetic fibres to the vessels, and by this means reach the local ganglion on the coats of the latter.

When the arteries of a given area dilate in response to the stimulation of an afferent nerve, all the other arteries in the body become unusually contracted, and, although, this is to some extent due to the increased quantity of blood in the dilated vessels, yet it may be that the nervous energy which has been prevented from following its usual channels is diverted to other courses, and goes to increase the energy which is being sent to the vessels that have not been deprived of their nervous supply.

Looking at the matter in this light, all that has been attributed to vaso-motor centres in the brain and spinal cord, may be accounted for by considering them centres of inhibition, and the so-called vaso-motor centre in the medulla as a co-ordinating inhibitory centre by means of which the equilibrium of the circulation is maintained.

The following circumstances show that by means of cerebro-spinal nerves, a constant restraint is exercised upon vaso-constrictor impulses. If the pneumogastric is divided during the process of digestion, the vessels of the stomach which had become dilated from the presence of food, at once contract leaving the gastric mucous membrane pale and bloodless. When the trigeminus of a rabbit is divided in the skull, ulceration of the gums, lips and cornea follows, but if the superior cervical ganglion is removed at the same time this ulceration is prevented. In cases of myelitis where the functions of the cord are completely destroyed, the bed sores which so frequently accompany this condition are almost iden-

tical in character with the gangrene, which follows obstruction or obliteration of arteries. When, on the contrary, sensory nerves become more than usually sensitive, as in some cases of disease of the brain or spinal cord, the blood vessels in those parts where the nerves are in a state of hyperæsthesia, become very much dilated and there is a rise of temperature. When, however, the disease or injury is of such a nature as to destroy the functions of the cord completely, the parts become paler and colder than natural.

A departure from the normal or healthy state of any part of the body, is usually accompanied by a diminution of arterial pressure. Hence to restore tone to the more or less paralysed muscular coats of the arterioles, and thereby relieve the capillary engorgement is often the object of medical treatment. One method frequently employed to accomplish this purpose is to relieve the ganglia which control the affected vessels from the inhibitory influence of the cerebro-spinal nerves. And this is usually done by excluding air and making sedative and soothing applications to the peripheral extremities of these nerves, or by the administration of such medicines as have a sedative effect on the nerves in question. For instance, belladonna is known to have a sedative effect upon the pneumogastric in particular, while the best effects of opium are probably produced on the sensory nerves of the abdomen.

When it is considered desirable to relieve an engorged district by diverting the blood to another part of the body the inhibitory influence of the sensory nerves in the part fixed upon is increased by making stimulating applications to their terminal extremities, or by giving medicines which are known to have a stimulating effect upon such nerves. As we have seen that the vessels of the salivary glands are dilated by placing certain substances in the mouth, no doubt the vessels in other parts of the body may be dilated by the stimulation of

appropriate nerves, for instance those of the kidneys by diuretics, those of the intestines by purgatives, etc.

That the character of the circulation is improved by removing the inhibitory influence of the cerebro-spinal nerves, and not by stimulating vaso-constrictor fibres, is made probable by the fact that medicines which increase arterial tension are those which diminish the activity of cerebro-spinal nerves. A curious instance of this is the effect of physostigma in relieving to some extent and checking the progress of paralysis from myelitis, although this drug is one of the most powerful of the nervous sedatives. The effect of heat upon the circulation depends upon the degree to which it is applied. Thus, when a moderate degree of heat is applied to the skin the superficial vessels dilate, because the sensory nerves are stimulated; but if heat is applied to a much greater extent the surface becomes blanched, partly because the sensory nerves have become paralysed from over-stimulation, and partly because the heat has penetrated to the local ganglia, and by stimulating them has caused the vessels to contract.

Cold on the other hand lessens the irritability of the sensory nerves, and thereby removes their inhibitory influence from the ganglia. When, however, it is applied to such an extent as to influence the local ganglia of the vessels its sedative influence upon them may allow the vessels to dilate. Experiments have shown also that impulses will not pass along sympathetic fibres—the temperature of which is even moderately reduced.

To sum up :

1. Arterial pressure is maintained by nervous impulses which arise spontaneously in the sympathetic ganglia and act upon the muscular coats of the minute arteries.

2. There is no satisfactory evidence that cerebro-spinal nerves carry impulses to the muscular coats of the arteries.

3. Sympathetic ganglia, being incapable

of reflex action, cannot send out impulses in response to impressions received by sensory nerves, although it is quite evident that the action of these ganglia may be inhibited by means of cerebro-spinal nerves.

4. The connection between the sympathetic ganglia and the ganglia on the posterior roots of the spinal nerves clearly indicates the way by which sensory impulses reach the sympathetic ganglia.

5. It is well known that when the vessels of an area become dilated all the remaining vessels become unusually contracted; and although this is probably due, to some extent, to the withdrawal of blood from the latter, yet it may be assisted by the nervous energy which is withdrawn from the dilated vessels; that, in fact, the ganglionic system may be compared to a number of galvanic batteries, connected with each other, and from which numberless wires proceed in every direction, and when some of the wires are disconnected, the strength of the currents carried by the remainder becomes increased.

MALARIA.

BY J. G. BRAY, M.D., CHATHAM, EX-PRESIDENT
ONTARIO MEDICAL COUNCIL.

(Abstract of a paper read before the Sanitary Convention at London, Ont., Nov. 17th, 1883.)

I have chosen for this paper the subject of malaria, for two reasons:—Firstly, because it is the source of most of the sickness in Chatham and vicinity; and secondly, because it is a matter that should be brought prominently before the people and the Government, for the purpose, if possible, that some means may be devised to reduce the supply and check its spread. There are three things necessary for the production of malaria, viz.:—Heat, moisture and vegetable decomposition; and just in proportion as these exist will the character of the miasmatic poison be, and the influence it exerts on the system manifested. Unless these three causes combine, we can have no malaria. We may have vegetable de-

composition going slowly on at a comparatively low temperature, producing a small quantity of miasma, but not in sufficient quantities to cause intermittents; but should the thermometer rise to, say 80°, and remain at that point for a week, ten chances to one several cases of intermittent fever will occur. Should the temperature become still higher, and continue so for any length of time, the intermittent will be replaced by remittent and continued fevers. My experience in a malarious district has extended over a period of twenty years, and during that time I have been a close observer of the changes that have occurred in the character of the fevers that are endemic to this section, as well as the climatic influences which affect the character of this poison. Shaking ague was almost the only form of malaria existing in the county of Kent twenty or thirty years ago. Now, such a thing as a genuine old fashioned attack of shaking ague is almost unknown, particularly amongst old residents and those acclimated to the country. The exceptional cases that do occur are in the persons of immigrants.

There are several things which exert a modifying influence on the production and spread of malaria. Among which are time of year, rainfall, freshets, lakes and rivers, the winds, and, above all, drainage. First, the time of year and rainfall. As an example, suppose we have a wet spring with high water in the streams which overflow the country for a considerable extent. With a low temperature there will be no malaria, but as soon as the water dries up and evaporates, an occasional case of chill and fever occurs; but if rain again falls and the low spots become covered with water, this disappears, and we are free from miasma, and will remain so until they again become dry and the temperature rises, when decomposition begins, and as a consequence malaria is germinated in great quantities, which is absorbed by plants, water, the earth and human beings, producing inter-

mittent, remittent, bilious and continued fevers, diarrhoea and dysentery.

I have said that season and rainfall have a modifying influence on the production of malaria, and have in a feeble way endeavoured to show how they do this. But as it is not within the scope of human power to control the rainfall or the temperature, it follows we cannot prevent altogether the production of malaria. But I will now endeavour to show how it is within our power to lessen its spread. As before stated, drainage possesses one of the most powerful influences over the production and spread of this poison. It is well known to many present that portions of the Raleigh Plains, in the county of Kent, that a few years ago were partly or wholly covered by water, untillable and almost valueless, were one of the great reservoirs for malaria, but are to-day almost free from it, and what is more, are now among the best of our farming lands. This wonderful change has been brought about by the construction of five or six large drains. I think that no government could employ the funds at its disposal to a better or more laudable purpose than the improvement of the country and the health of its inhabitants. And I would suggest, that some of our surplus be expended in the planting of forests, the drainage of low lands, the sinking of artesian wells, and in any other way whereby the spread of malaria can be prevented. One, and I think the chief reason why malaria, instead of being confined to a few localities, as was the case thirty or forty years ago in this Province, is now almost universal, is because the forests have been cut down, and the country cleared up and cultivated, thereby allowing the winds to carry the poison for miles to the homes of those living in districts where malaria was formerly unknown.

I have often asked myself the question, Why do we have malaria in winter if the theory be correct that a low temperature destroys it? And the only solution I can

give is that the three great receptacles before named, viz., the earth, water, and the human system, have a supply in store, which, under favourable circumstances, produces its effects in the shape of intermittent or other fevers. The water in the wells being impregnated with it is one great source of supply, particularly when the ground is frozen for a long time and the water gets low. The second reason is that from under houses and protected spots it escapes, and thirdly, some people have a continual supply in their systems, only waiting to develop itself when it finds a good opportunity for so doing, as when a person is exhausted by over fatigue, loss of rest or otherwise run down. Now if this theory is correct as to why we have malaria in winter, then is there any remedy, and, if so, what is it?

(1) I would advise good ventilation in and under our houses. Do not bank them up with earth, as is the general custom in rural districts, or close the ventilators, as is often done in towns and cities, but have double floors with a layer of felt paper between.

(2) For towns and cities, have water-works and bring the supplies from springs, rivers or lakes that are not impregnated with malaria, and in the country, sink artesian wells and do away with the miserable surface holes that are to be found all through the western district.

Selections : Medicine.

PROGNOSIS IN HEART-DISEASE.

BY W. H. BROADBENT, M.D., F.R.C.P., LOND.

Prognosis, foreknowledge of the course and issue of disease, is one of the highest and most important attributes of the medical man. Perhaps, more than any other, it is the mark of the complete physician; it is the combined result of large knowledge, extended experience, close and minute observation, and true insight, and is the test

of what may be called the clinical faculty. Its importance to the patient is evident, and to the medical man it is scarcely less so; nothing secures the confidence of patients and friends so firmly as to see the drama of an illness unfold itself according to a course already sketched out, and pursue its march to a known termination. True, this foreknowledge may, like the gift of prophecy, be a burden; we may have to dash to the earth hopes which are the only comfort of a family and friends; but it is far better to have beforehand the pain of seeing what is impending, than to have afterwards the bitter regret that we allowed ourselves and others to be deluded by false hopes, and perhaps that we contributed to overwhelm a family in disaster as well as in grief. But prognosis is the knowledge not only of the end but of the course of disease; it is, in fact, only a branch of diagnosis. These remarks upon the value and importance of prognosis apply with special force to heart-disease. What a difference there is in the presence of a case of the disease of the heart, in which the question of the future arises, between the man who knows, and him who can only conjecture! The one must hide his ignorance and defend his credit by vagueness of statement; must, therefore, on recognising the existence of heart-disease, speak of sudden death as amongst the contingencies to be feared; or, having seen that his apprehensions in previous cases had been falsified, he may, on the other hand, lull the sufferer into false security, and not only fail to warn him of inevitable danger, but precipitate the fatal termination. The other, secure in his knowledge, will distinguish the cases in which he must warn from those in which he may hold out encouragement.

In the mind of the general public, disease of the heart and sudden death are so closely associated, that the mention of the one immediately suggests the other. It must be understood that the sudden death under consideration is such as is meant by the phrase "dropping down dead" with little or no warning, the individual having been up to the moment in apparent health, or so far well as to be able to go about his duties. Medical men are well aware that this apprehension on the part of the public is greatly exaggerated; but they hardly sufficiently recognise that sudden death is a contingency which may almost be left out of considera-

tion in valvular disease, except in aortic regurgitation.

* * * * *

The relative frequency of the several valvular diseases is, according to Dr. Walshe, mitral regurgitation, aortic constriction, aortic regurgitation, mitral constriction, tricuspid regurgitation, pulmonary constriction, pulmonary regurgitation, tricuspid constriction; and, according to the same observer, their order of relative gravity is tricuspid regurgitation, mitral regurgitation, mitral constriction, aortic regurgitation, pulmonary constriction, aortic constriction. According to my experience, aortic constriction should be displaced from its position of relative frequency, and should come after mitral constriction; and I shall leave the valves of the right side of the heart entirely out of the question, since lesions of them are not only relatively rare, but they can scarcely be considered independently of affections of the valves of the left heart or of the lungs. I should then give the following as the order of relative danger:—mitral stenosis, aortic regurgitation, mitral regurgitation, aortic stenosis. Aortic regurgitation, however, under certain circumstances, is the most fatal of all valvular affections; this is, when it comes on late in life, at a period when it is progressive in character, and when compensatory hypertrophy is established with difficulty.

The actual condition of the orifice and valve affected must now be considered. Our guide in localising disease in the valves of the heart is chiefly a murmur, produced by obstruction to the current of blood, when one or other orifice is narrowed or roughened; or by regurgitation, when a valve no longer closes perfectly. By means of the murmurs, we learn definitely which valve is affected, and in what way, but they fail altogether to indicate of themselves the amount of damage which a valve has sustained. A loud murmur may be produced by a very slight change, and a murmur which is scarcely audible, may be indicative of most extensive destruction.

Murmurs may be compared or contrasted in several respects: in intensity, in duration, in character, and in their relation to the sounds of the heart in point of time.

A loud murmur is, on the whole, of less serious import than one which is weak and soft; it is, at any rate, indicative of force in the heart's action, and weakness of the

heart constitutes the greatest of all dangers. It must not be concluded that a soft or weak murmur necessarily signifies either a failing heart or a greatly damaged valve; but a diminution of the intensity of a murmur, gradual or sudden, may confirm unfavourable indications given by symptoms.

A long murmur, except in the case of mitral or aortic stenosis, is usually indicative of early and comparatively slight disease, and of efficient action of the heart. Sometimes, a short murmur is significant of impending danger.

The character of a murmur, its roughness or smoothness, may have diagnostic significance, as will be pointed out later, but does not give any information with regard to the extent of structural change or functional derangements.

An accent at the beginning of a murmur shows that the valves still act as a check on the reflux of blood.

A postsystolic or postdiastolic murmur shows that the valves come together accurately at first, but fail to remain in apposition throughout the whole period of ventricular contraction; it indicates, then, that the amount of leakage can only be slight.

The conclusions drawn from the pulse add materially to the information; in aortic obstruction, the pulse will be long, and the initial "percussion-wave" slight. In aortic regurgitation, we have the well-known collapsing pulse. In mitral stenosis, the artery is small, and full between the beats, but usually regular; while mitral regurgitation, when considerable, is attended with extreme irregularity of the pulse.

But these murmurs, and the character of the pulse, furnish no reliable measure of the degree of obstruction and amount of regurgitation; we possess such an indication, however, first, in the effects on the cavities and walls of the heart; secondly, in the evidence of obstructed circulation in the lungs or in the system.

* * * * *

Bringing, in conclusion, some of the chief indications dwelt upon to a focus, we have, let us say, an individual in apparent health in whom a valvular murmur has been discovered; there is, however, no modification of the pulse, and no structural change in the heart. Here the change in the valves is slight, and present danger there is none.

The future of such a patient will depend

on the nature of the lesion, whether, that is, it is old and stationary, or recent and progressive. In one case he may reach old age, in the other, may have only two or three years to live.

In another case, while there are no symptoms, there is dilatation and hypertrophy, or both, and a corresponding modification of the pulse. These show that the valvular change is sufficient to have called for compensation, and although this may be sustained under ordinary circumstances, it may break down under strain of any kind. If the lesion is progressive, symptoms will not long be absent.

In yet another patient, embarrassment of the pulmonary or systemic circulation has been set up. Here danger is never far off, though it may be guarded against for years. Symptoms once present, there is, speaking generally, less probability of prolonged life in aortic than in mitral disease. The state of the walls and cavities of the heart will be important, but still more the question whether the symptoms are due to some temporary and remediable cause, or are the direct result of the state of the valves.

The stationary or progressive character of the change loses none of its importance. The only hope lies in the absence of any tendency to aggravation of the valvular lesion, together with soundness of the structures generally, and a good family history.

When we are called to a patient suffering from some severe pulmonary complication or from advanced dropsy, the first question will be whether the symptoms have come on gradually or have been precipitated by exposure, over-exertion, or other adequate cause. If they have supervened in spite of favourable circumstances, there is little chance of their arrest. If, on the other hand, some powerful disturbing influence has overthrown the equilibrium of the circulation, this may be regained if the heart manifests power, and if the dilatation and hypertrophy do not tell of a hopeless extent of valvular mischief.—*Brit. Med. Jnl.*

DIETETICS OF DIABETES.—In diabetes there is a great loss of glucose. There is no use in giving to such patients free sugar with the idea of replacing that waste. This is, at first sight, a plausible theory, but it explodes on the first trial in practice. The more you give of sugar or starch, in any of their forms, the more sugar is

excreted and the worse the patient becomes, and you recognize the fact that this drain cannot be replaced. Further, you find, if you prevent the ingestion of sugar and starch, that nearly all cases do better. You do this by giving albumen in its various forms, fatty articles, and gluten, that is, grain from which the starch has been washed; to these may be added succulent green vegetables not containing sugar or starch. The diet has to be varied according to the taste of the individual, according to his circumstances in life, and according to the market which is accessible. Where money is plenty and the market good, you can make a very good bill of fare without allowing sugar or starch; but where you have to cater to the palate of a person in moderate circumstances, with a poor digestion, you will often find it a matter of no little difficulty, and will often have to break your rule and allow a small quantity of starch or sugar, in order to prevent the patient from becoming thoroughly disgusted with his food.

The exclusion of sugar and starch from the food should not be abrupt, but should be made gradually. The diet of a diabetic patient should in general terms be something like this:

Breakfast.—A cup of tea, without milk or sugar, but with a sliced lemon in it, according to the Russian fashion; a couple of soft-boiled eggs, broiled chops, beefsteak, or fish; oysters must be excluded, as the liver which makes up the chief bulk of the oyster, contains sugar; with these may be given some vegetable, as a raw tomato, a raw onion with vinegar, and a slice of gluten bread or a couple of gluten biscuits.

Between breakfast and dinner a little cream, with a teaspoonful or so of old rum or whiskey.

Dinner.—Meat, green vegetables, string-beans, tomatoes, cauliflower, onion, lettuce (the latter contains a little sugar, but not enough to do any harm), and again gluten bread.

The evening meal is similar to the breakfast. All these articles are inexpensive and can be easily procured.

Having made the change in the diet, you watch carefully to see the effect upon the excretion of urine and sugar. While doing this, I should advise you to give no medicines. If you have confidence in the patient's intelligence, explain to him what

you are going to do, and that you wish to see what effect the change of diet will have upon his disease, for upon this will be based your opinion as to the further progress of the case. If you have not confidence in the patient, and think that a prescription is necessary for its moral effect, I should let it be a mere placebo—a little coloured water. I should not complicate the case by the administration of such remedies as opium, codeia, bromide of potassium, ergot, and iron, until I had determined the effect of judicious regulation of the diet.

The exclusion of sugar and starch will be followed by one of three results.

1. The patient immediately gets wonderfully better; he sleeps better; urination is not so frequent; the quantity of urine goes down from perhaps 200 or 300 ounces to 80 or 70 ounces; and the sugar goes down to a mere trace. In other words the regulation of the diet at once relieves the symptoms of diabetes. This is a most favourable effect.

2. In other cases the amount of urine may diminish, but still continue considerably above the normal quantity, perhaps 120 ounces, the specific gravity keeps up, and it still contains a large proportion of sugar. Here is evidence of a profound alteration of the vital chemistry of the body: There are cases in which, although starch and sugar are cut off, still the patients will manufacture glucose in their bodies and the symptoms will continue. These patients will go down hill rapidly.

3. In a third class of cases we find that the patient cannot take the restricted diet. They become disgusted with it and are anxiously asking for a change, or make changes without your permission; or if they take the food they do not digest it but suffer from dyspepsia.

In this latter class of cases I should advise a still further change in the diet before administering any drug. I should put him on a diet of skim-milk, pure and simple, beginning, as I have repeatedly urged upon you the importance of doing, by confining the patient to bed, by employing a sufficient amount of friction to maintain the circulation of the extremities, and by giving the milk in small quantities, at short intervals, beginning with a gill every two hours, or in diabetes where there is much thirst, a gill every hour or hour and a half. The quantity should be gradually

increased until the patient takes half a pint every two or three hours. This skim-milk treatment of diabetes, when carefully introduced, not allowing the patient to exert himself while on a small quantity of milk, and permitting a gradual return to exercise as the amount of milk is increased, is sometimes followed by wonderful results. Patients who have not done well on solid food from which starch and sugar have been excluded will immediately improve on a diet of skim-milk, although the latter does contain a certain amount of sugar.—*Med. Rec.*

PROLONGED SUSPENSION OF VITALITY FOLLOWING THE HYPODERMIC INJECTION OF MORPHIA AND ATROPIA.—A woman 37 years of age, upon whom an operation had been performed for the removal of the left ovary, at noon, four days after the operation, became very excited and disturbed the dressings of the wound, when twelve minims of the hospital solution of morphia and atropine were injected. This represented three-fifths of a grain of morphia and one-fortieth of a grain of atropine. At one o'clock she became livid, and the nurse by mistake injected another five minims of the solution before the house-surgeon arrived. When he came, he injected ammonia, gave brandy enemata, used artificial respiration, and applied electricity, without effect. At 4 p.m. the nurse was laying the woman out, but the doctor came in and determined to proceed with artificial respiration, galvanism, and frictions. Up to 5.30 p.m. only a spasmodic breath every quarter of an hour, and a feeble beat of the pulse every now and then, could be detected. At 7 p.m. a nurse poured some coffee into the patient's mouth, and she suddenly fell back as if dead, but by turning her over on her side she was made to vomit. By nine o'clock the respirations were beginning to be more frequent and the pulse stronger; she soon became conscious after this, and recovered perfectly.—*Dr. Alexander, in the Boston Medical and Surgical Journal.—Phil. Med. Times.*

AMYLNITRITE IN ANGINA PECTORIS.—Pierre Vigier recommends those who use this drug, to drop the required dose upon a tuft of cotton batting enclosed in an ordinary homœopathic vial. In this way it is conveniently carried around, and there is no danger of taking an overdose.

RUPTURE OF APPENDIX VERMIFORMIS—PERITONITIS—DEATH.—M. Polaillon reported to the Medical Society of Paris, (*L'Union Méd.*) the case of a young girl who after muscular effort felt a pain in her belly. An attack of peritonitis developed and progressed slowly. The symptoms closely resembled those of intestinal obstruction. There was vomiting of fecaloid matter, tympanitis, complete obstipation, not even gas being passed per anum for eight days after the accident. Under these circumstances the abdomen was opened, and an attempt made to establish an artificial anus. When the peritoneal cavity was opened, a quantity of sero-purulent highly fetid matter escaped; showing that the bowels had already been perforated. The woman died. At the *post-mortem* the intestines were more or less matted by recently effused lymph; the appendix vermiformis was bathed in pus; at its free extremity was found an ulceration about 1 cm. in length, oval in shape. At the centre of this ulcer was a rounded perforation 3 or 4 mm. in diameter. A little above the ulceration the lumen of the appendix was entirely obstructed by a foreign body which proved to be a haricot bean. This could be moved towards the cæcum, but not towards the perforation; nor would it allow fluid nor gas to pass from the cæcum through the perforation.

SUBNITRATE OF BISMUTH WITH ALKALIES.—The following, reported by H. Cripps Lawrence, in the *Lancet*, Aug. 1883, is worth knowing:

A lady, who had just left London for a remote part of Scotland, requested me to prescribe an antacid she was accustomed to take, in a concentrated form for convenience in packing. Accordingly I prescribed:—

R Sodæ sesquicarb ʒ ij
 Bismuthi albi..... ʒ ss
 Mucilaginis ʒ iij
 Acid. hydrocyan. dil..... ℥ xlvij
 Aquam ad fl. oz. vj.

Sgt. ʒ ij (by measure), in a wineglassful of water every four or six hours.

The result of this combination, on two occasions, was to yield an amount of gaseous decomposition sufficient to burst the bottle. Pharmacologists are well aware of the instability of this salt of bismuth,

which is apt to become acid, and an article on the subject in the *Pharmaceutical Journal* of January 3, 1883, fully explains the characteristics of the subnitrate of bismuth. Another salt of bismuth the carbonate of bismuth, is free from this risk, and, being identical in dose, should be substituted for the subnitrate when it is necessary to prescribe other alkalies in combination.—*Quart. Comp. Med. Sci.*

TREATMENT OF ASCARIDES VERMICULARES.—It is often difficult to cause the complete disappearance of the Ascarides because they are not all reached, and then multiply rapidly. Dr. Szerlecki of Mulhouse, reports a rapid and complete success from the employment of enemata of cod liver oil, twice daily, using six dessert spoonfuls of pure oil. An obstinate intertrigo disappeared at the same time. The following pill may also be employed:—

Santonine i gramme
 Ext. Absinth i gramme, 50 centigr
 Pulv. Altheæ Q. S.
 Fiat Pilulas, No. xx.

For children, one or two in the morning, fasting; for adults, one to six. M. G. Sée prefers, to the ordinary means used, the introduction into the rectum and around it (at bedtime for two or three nights) of mercurial ointment. It is said to be very efficacious.—*Le Prog. Méd.*

NITRO-GLYCERIN AND THE CHLORIDE OF GOLD AND SODIUM IN THE TREATMENT OF ALBUMINURIA.—(Roberts Bartholow).—The former remedy (in one per cent. solution) is recommended, in drop doses, in the more acute cases, influencing as it does more directly the blood supply; the other, a double salt, is indicated in the subacute and chronic cases, especially the latter, in doses of one-tenth of a grain at first, reduced at the end of a week to one-fifteenth of a grain, then continued for a month in smaller doses. If good effects are not observed in two weeks, they may be discontinued. He had observed very good results from its use in this class of cases.—*Phil. Med. Times.*

INHALATIONS OF CARBONIC ACID IN WHOOPING COUGH.—M. Campardon led by a work of Dr. Petit (of Royat) in which the treatment of whooping cough consisted in bringing children affected with that disease

into a grotto whose atmosphere, especially the lower layers, was strongly charged with carbonic acid gas, has experimented with satisfactory results with inhalations of artificial carbonic acid. The gas was formed in a seltzer water apparatus, and conducted by rubber tubing to the nostrils where it was slowly delivered. The cure in one case was complete and rapid. M. Campardon insists upon the necessity of employing for the inhalations carbonic acid gas charged with vapour of water.—*Jour. de Méd. de Paris.*

NERVOUS MANIFESTATIONS SEQUENT ON ANÆSTHESIA.—M. Ferrier, at the Société de Chirurgie, reported a case of hystero-epilepsy consequent upon chloroformisation for a slight surgical operation. Other cases were mentioned by MM. Nicaise and Verneuil.

(Two similar cases have come to my knowledge in this city. One of a young girl from whom a sub-ungueal exostosis was removed. After chloroform there was a decided hemispasm of the right side of the body. This occurred on two occasions. There being no nervous manifestations in the intervening period of thirteen months. A second case was in a young man, after the administration of ether for ligation of hæmorrhoids. A grand attack of hysteria ensued, followed by well marked melancholia, refusal to take food, sullen silence, etc.—R. B. N.)

NEURALGIA PENCILS are said (*Drug. Circ.*) to consist of a mixture of menthol, thymol, and eucalyptol, fused and cast in small conic pellets, which are fitted in suitable handles. The forehead and temples are touched with the pencil. A slight impression of burning is first produced, which rapidly gives way to a pleasant, cool sensation. Nerve Crystals, another preparation, are said to consist of crystallized Japanese peppermint oil and camphor.

SUBSTITUTE FOR ROCHE'S EMBROGATION FOR WHOOPING COUGH.—W. L'Heureux Blenkarne, F.R.C.S., writes to the *British Medical Journal*, that he has found the following formula useful:—℞ Olei Succini ʒ iv. Olei Camphoræ ad ʒ iss. M. Fiat Embrocationem. To be well rubbed into the back and front of the chest three or four times daily.

A READY METHOD FOR THE DETECTION OF THE BACILLUS TUBERCULOSIS.—Dr. Hartzell (*Phil. Med. Times*) finds that nitric acid, generally used as a decolourizing agent, is disagreeable to handle, and apt to remove the colour from the bacilli. Substitute for it a saturated solution of oxalic acid. The different steps may be thus arranged: (1) Spread the sputum on the slide, dry, and pass through the flame of the lamp. (2) Stain with the fuchsin solution (Grandle's) three to five minutes. (3) Wash in distilled water. (4) Decolourize with oxalic acid. (5) Wash again thoroughly in distilled water, dry, and mount in glycerine or balsam. The bacilli will appear as brilliant red rods, no staining of the background being necessary.

CIMICIFUGA IN EPILEPTIFORM NIGHTMARE.—Dr. Small, of Maine, reports a case which was cured by the administration of half a teaspoonful of powdered *cimicifuga racemosa* at bedtime, and a light supper each night. The paroxysms at once ceased, and in a lengthy period of observation there had been no return.—*Phil. Med. Times.*

Surgery.

OSTEOCLASY FOR GENU VALGUM.—At the Medical Society of Lyons *apropos* of a case of genu valgum treated by osteoclasy, Dr. D. Mollière said that Robin's osteoclast gave as great precision to the fracture of the femur as did the chisel of the osteotomist. He had practised the operation eighty times without accident. This mathematical precision permitted him to ask the question at what point should the femur be broken?

Many surgeons think the rupture should be made as near as possible to the femoral condyles. The nearer we approach the epiphysis the better will be the results as regards form. The osteotomists, affirming that fracture cannot be performed at this low level, say that osteoclasy must be given up. To answer this objection I am constrained to publish what can be done with Robin's instrument. Its skilful inventor gave me no peace nor quiet until I had performed transverse intra-articular fractures with it. I have performed many such upon my patients. But in spite of the excellent results we have obtained in these cases, I prefer now to operate at a higher point.

The place of election of femoral osteoclasty is the point where the femur becomes cylindrical, the point where the *linea aspera* bifurcates. In fracturing at this level, the wedge-shaped space with base outward left by straightening the limb, is insignificant. When the fracture is seated lower, it is considerable. This is well shown on M. Robin's specimens. So consolidation is obtained much more slowly.

As regards form the results are the same. Let us add, that in keeping away from epiphyseal cartilage when we operate in young subjects we are protected from those troubles in the growth of the limb imputed to the method of M. Delore, theoretically it is true.

This brings me quite naturally to discuss the question of the age at which osteoclasty should be practised. The instrument was made for operations upon adults and adolescents. As to children, having operated only on individuals of fifteen years at the least; I do not like to answer that question. I believe that in younger children the deviation has not yet attained its maximum. The disease which gave rise to the deformity has not been cured, and therefore the operation would be premature, and orthopedic appliances should have the preference. I do not, on this account, entirely reject Delore's treatment, but recollect that prolonged treatment by keepers is required, for the child, if set at liberty too soon, is apt to have a recurrence of the deformity.

M. Ollier said that the question of osteoclasty is settled. I see no advantage in fracturing the femur through the condyles. In children, we expose them to the dangers of arrests of growth, and at all ages we run the risks of the complication of penetrating articular fractures. The breaking must be made in the diaphysis seven or eight cm. from the articular interline. The absence of apparent callus is not a very serious advantage; with a thick callus, the guarantees of solidity would be greater. Aestheticism is indifferent here. Returns may take place with all methods during the period of growth. Whatever method be employed, retentive apparatus must be worn for a long time.—*Lyon Méd.*

the third period of growth is reached, the period of softening and transformation that a diagnosis becomes possible. In this period the central elements undergo fatty degeneration and from reciprocal pressure become unrecognizable and assume the appearance of mastic as we have already seen in the tubercular abscess. Later the entire mass of the gumma undergoes this fatty degeneration. In tuberculosis, this third period offers divers transformations, sometimes an abscess is formed, sometimes a caseous collection without fluid, or even the fatty matter is absorbed.

In the gummata formation of fluid also takes place; but in place of proceeding rapidly, the degeneration is produced slowly, the caseous elements in liquefying have not a purulent appearance, the liquid is yellowish and thready, of a special aspect known as the gummatus liquid. In addition there is in the cavity caseous debris and filaments or bundles of degenerated fibres which give to the contents of these cavities a characteristic aspect. This matter resembles oakum, yellowish to like macerated hemp, and its debris is formed by the fibrous tracts and caseous detritus.

The great difference between the mode of liquefaction of the contents of the gummata and of the tuberculous abscesses is the greater slowness of the process, in the first; further the absorption of fat gives a transparent mucous liquid in which swim the bundles resembling tow. There exists a second more important difference from tuberculosis. On account of the very slow progress of disorganization caseous degeneration is rare around a tubercular abscess while in the gumma it is the rule. There is little tendency for the tissues to become inflamed, but they have more facility in hardening and constituting a kind of adherent and consistent mastic. Finally a third differential character is this: while the tubercular abscesses show little tendency to heal, the gummata in the third stage have a propensity for resorption. Their slow formation renders regression and resorption more easy.

Retain these three distinctive characters of the syphilitic gumma. (1) slow liquefaction of its constituent elements; (2) more frequent caseous transformation; (3) more easy resorption.

Anatomical data afford great assistance

COLD ABSCESSSES AND GUMMATA; DIFFERENTIAL DIAGNOSIS. — M. Terrillon states (*Le Prog. Méd.*) that in the beginning they are indistinguishable. It is not until

in the etiological diagnosis. In tubercular affections, we remark new vessels forming complicated loops. As soon as granulation develops, the vessels are obliterated. In the gumma on the contrary from its initial formation to its complete degeneration the vessels remain permeable; thanks to the role of these vessels the conditions of vitality are very different.

See now the clinical evolution of the gumma. If the gumma is sub-cutaneous, in the cellular tissue, we find the skin become altered in a special manner by a peculiar process, but not at all by invasion. It is an ulceration by pressure, a loss of substance as though punched out, which very small at first increases very rapidly from day to day. The neighbouring parts are undermined, beneath we find the gumma and its contents, gummatous liquid and filaments. The ulceration of cold abscesses on the other hand takes place from alterations in the neighbourhood.

Once emptied, the gumma and the tubercular abscess proceed in the same manner. The fistula consecutive to the opening of a gumma has a great analogy with that resulting from a cold abscess. The greatest difference being that the fistula of the gumma has a greater tendency to heal.

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SUB-CUTANEOUS DIVISION OF THE CRUCIAL LIGAMENTS FOR ANKYLOSIS OF KNEE.—(L. McLane Tiffany, M. D.)—Further forcible extension being inexpedient and the deformity continuing, division of the crucial ligaments is indicated and may be done as follows:—The patient lies on the back, the affected limb is held steadily in extension so as to render tense the anterior crucial ligament; the tenotome is entered to the inner side of the ligamentum patellæ, a quarter of an inch above the articular surface of the tibia, and carried backwards and outwards so as to pass between the tibial spine and the external condyle of the femur below the ligament (crucial). The flat of the blade is towards the articular surface of the tibia, the back towards the ligamentum patellæ, the edge towards the spine, after entering the joint. The cutting edge of the knife is now to be carried across the joint from side to side, the edge being directed so as to pass over the spine, and divides the anterior crucial ligament just above its attachment to the tibia; the

posterior crucial will probably also be divided, but as it lies further from the skin puncture, it is well to reverse the edge of the tenotome, without withdrawal, pass it more deeply into the joint, and carry it from the internal to the external condyle, retracing the path already travelled.

Before entering the knife, the skin should be drawn upwards that the wound may be valvular and air less likely to gain admission to the joint. The tenotomy wound is to be treated as usual. If division of the ligaments has been accomplished, the limb can at once be well extended; the tibia is felt to glide forward upon the condyles to occupy almost if not quite the usual situation, the posterior projection disappears, and the eversion of the foot is lessened. A proper retentive apparatus is to be applied—I use plaster of Paris—and the knee held in its new position until all likelihood of inflammation is past, when passive motion is to be commenced. Inasmuch as the affected limb, from long continued non-use, is usually not well developed, friction, electricity, etc., can be used with advantage.

Certain practical points in the operation described above present themselves and claim attention: one is the depth to which the knife must be entered before attempting to cut the ligaments; this will of course depend upon the size of the knee demanding treatment; the case related hereafter required that the tenotome be entered one inch and three quarters. Lately, when practising the operation upon an adult male subject in the dissecting-room, I found that the cutting edge of the knife had to be carried two inches and a half below the skin surface before the crucial ligaments could be severed; here, of course, the joint was healthy. It is wise, I think, that the tenotome should have a blade about three inches long, of which not less than one inch should have a cutting edge, the better to divide both ligaments at one time; also a long and slender point is not entirely free from chance of fracture in an ankylosed knee-joint, and it is well to have the end rounded or chisel-shaped with the corners cut off, furnished, however, with a good terminal edge.—*Med. News.*

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DIASTASIS OF THE ELBOW IN CHILDREN.—In the course of a recent clinical lecture (*Med. Times and Gaz.*), Mr. Jonathan Hutchinson remarks that partial separations of

the epiphysis are very much more common than complete ones, and much more difficult to diagnose. Any part of the epiphysis may give way, the central part or either of the condyles. In some cases, in addition to the separation, at some part of the epiphyseal area there is an oblique fracture of the shaft. We must be prepared for all sorts of complications. If there is any obscurity about a case, we may be sure that it is one of injury to the epiphysis—an uncomplicated dislocation is easy to recognize, easy to reduce, and not very difficult to keep in place. We all know that in adults dislocations at the elbow get well readily after reduction, and without any stiffness. In children how different is the prospect! In them the elbow nearly always remains more or less restricted in its movements. The cause of this is not alone the persisting malposition of the fragments, although that accounts for much; it is to be explained in large part by the fact that in such injuries the periosteum is always much stripped up, which leads to extensive deposit of new bone. After a while, however, in these young subjects, the bone, although much altered in form at first, becomes remolded, and, in the course of a few years, almost perfect restoration of movement may be expected. Not infrequently, however, the growth of the bone is arrested to a certain extent, and, if the separation of the epiphysis has been only partial, it may chance that permanent and very peculiar alterations may result. It will often puzzle the best anatomist to give anything like a confident interpretation of the case; over and over again he has known most remarkable differences of opinion between those who were well entitled to give them, and more than once it has been his lot to save a child from an attempt at the forcible reduction of what was supposed to be an old dislocation, by persuading the surgeon that the case was really one of separation of the epiphysis.

In conclusion, he gives the following practical rules: Never forget the epiphyses—that they are the weakest part of the bone. Always suspect that the injury is complicated—in part a dislocation at the joint, and in part a displacement at the epiphyseal junction. Remember that simple and complete detachments of the lower epiphysis of the humerus are more common than simple dislocations of both bones

backward. Never give a diagnosis, if the case is the least puzzling, without putting the child under ether and making a careful examination. Never be content unless you can easily put the limb up with the elbow well bent. Be very careful to give a guarded opinion to the parents, knowing that in nine out of ten simple dislocations there is damage either to the coronoid process or to the lower end of the humerus, and that some impediment to free motion is almost sure to result for a time.—*N. Y. Med. Jnl.*

HIGH AMPUTATION FOR SENILE GANGRENE.—At a recent meeting of the Royal Med. and Chir. Society of London, Mr. Jonathan Hutchinson read a paper on this subject, of which the *Lancet* gives the following resumé: It began with the statement that the author's chief object was to urge the safety and expediency of amputating in senile gangrene if the operation were done at a good distance from the disease. In the common form of gangrene of the toes and foot, the lower third of the thigh was the part suggested as the proper level of the amputation, and in rarer cases in which the hand was affected, the middle of the upper arm. After remarking on the fact that amputation had hitherto generally proved disappointing owing to return of the disease, the author urged that this was owing to their having usually been done too low down. The calcification of the arteries upon which, in the main, the disease depended, was usually greatest near the periphery, and hence the difficulty as to supply of blood for the nutrition of the flaps. This source of danger was not met with if the amputation be done sufficiently high. In a series of cases, in very old patients, the author had not encountered the recurrence of gangrene excepting in one. In three the stump had healed well. In a fourth, in which the patient, although not old, was prematurely senile and the calcification of the arteries extreme, the recovery had also been excellent. In this instance the femoral artery was so rigid that it stuck out from the face of the stump like a small bone. One of the patients, in whom the stump had healed without a drawback, was seventy years old. In two of the cases the other foot had been subsequently threatened with gangrene. As to the time to be selected, the author thought that as soon as the patient was so ill as to be confined to bed and the disease was well established,

it was best to operate. Spontaneous cure was, he urged, very exceptional, and a great majority of such cases ended in death. After a long period of much suffering, the thinner the patient the less was the risk of the amputation. In a few cases in which the thigh was exceptionally fat and the tissue flabby, it might be wise to hesitate as to recommending it. In all cases Lister's precautions had been carefully used, and in two or three the patient had never experienced the slightest pain from the day of the operation.—*Maryland Med. Jnl.*

PLASTER APPARATUS FOR POTTS DISEASE IN THE CERVICAL REGION.—M. Petel states that he has found the following apparatus simple and effectual in Potts disease situated in the cervical region. The hair of the child is shaved and the head covered with a close fitting cap, in order to prevent the plaster from sticking to the hair. When the apparatus has dried, the cap can be cut away except where covered by the splints. The child is stripped to the waist and seated on a stool in a warm room. The apparatus consists in two splints of plastered tarlatan, one the *bi-auricular* prevents inclination and rotation of the head, the other *fronto-occipital* limits flexion and extension.

The first splint, the *bi-auricular* is hollowed at the ears; it is 7 cm. wide, and 2 metres to 2½ long, formed of eight folds of tarlatan. The middle of this splint is placed on the top of the head, thence it descends over the ears, the ends cross under the chiro, then pass under the axilla and are joined at the back.

The second splint not so wide (5 cm.), nor so long (1½ m.) as the preceding, is applied by its middle to the brow, the ends cross at the back of the neck thence passing over the supra-clavicular region are joined to the first splint.

The plaster splints thus applied are immediately covered with dry bandages to mould them exactly to the parts. The child's head is maintained in a favourable position until the plaster has set. Cotton wool may be interposed at the axilla or nape of the neck, or wherever friction is likely to occur.

These bandages may be applied under chloroform, in case of torticollis. It will require to be renewed frequently as every month or six weeks.—*Jour. de Méd. de Paris.*

CONGENITAL EXOMPHALOS.—M. Renaudin, (*L'Union Méd. et Sci. du Nord-Est*), reports a case of congenital umbilical hernia. On the cord about 5 cm. from the abdominal wall was a spherical swelling about as large as a goose's egg. It was soft and elastic—almost fluctuating. When about to puncture it he felt a gurgling—then by the taxis he reduced it to the size of a hen's egg. His efforts did not succeed in reducing its size any further. The next day tried the taxis again, and not succeeding he slit the cord down as far as the swelling, then turned the cord out like the finger of a glove, as close to the abdominal wall as possible. Here a rounded mass was found; the fingers were used as in reducing a prolapsed rectum, and the greater portion was crowded back into the abdomen. Numerous intestinal folds were seen adherent to the inner wall of the cord; the vermiform appendix was clearly recognized. With the finger and a spatula, these were all separated and returned. The finger passed into the abdominal cavity showed there were no other folds adherent. A knot was placed upon the cord as close to the umbilicus as possible, and a carbolized pad placed over all. Immediately after replacing the intestine the child passed meconium freely. The child recovered entirely, and showed a perfectly normal umbilicus, with no signs of its hernia or of the operation.

I have noticed a great increase in the number of operations performed at the London hospitals since the time I was a house surgeon, now ten years ago, and many, I think can hardly be necessary. A great increase is due to osteotomies, which had hardly then been attempted, and again, their prevalence increases also the number of amputations.—E. V. A. in *St. Louis Cour. of Med.*

NERVI NERVORUM.—Mr. Victor Horsley has ascertained that the perineurium contains not only sensory nerve fibres but also "tactile corpuscles," or "end bulbs."—B. M. J.

CODEINE Phosphate has been prepared by Merck, at the suggestion of Prof. Hegar. It is soluble in four parts of water, and is suited for hypodermic injection.—*Med. Times.*

LINEAR OSTEOTOMY.—Mr. Edward Atkinson read notes of three cases of linear osteotomy. *Case 1.*—A boy, aged 12, had ostitis of the middle third of the tibia, due to being hit on the shin by a stick three years before. Medicinal and other treatment gave no relief, and he complained of a dull aching, worse at night and on walking. Mr. Atkinson made a vertical incision, four inches long and one-third of an inch deep, into the bone by means of Hey's saw. Full antiseptic precautions were adopted. The temperature never rose above normal, and the wound healed in eight days. One month later, the boy felt quite well. *Case 2.*—A woman, aged 28, injured her right leg by a twist eight years before. Dull aching, worse at night, and swelling over the upper third of the tibia, without superficial inflammation, indicated ostitis. Linear osteotomy was performed as in the last case; and when seen two months afterwards, she was quite well. *Case 3.*—S. P., aged 29, when ten years of age, fractured the right forearm at the lower third. Five years ago, she began to suffer from pain at the site of the old fracture. When she was seen by Mr. Atkinson, there were the ordinary signs of ostitis over the lower third of the ulna. Linear osteotomy was performed, the periosteum being very thick. In three weeks, she was discharged well. Mr. Atkinson said that he had brought these cases forward for three reasons. (1) All three having occurred in his wards within a few months seemed to suggest the opportunity for remarking upon the usefulness of a treatment which was not so often practised as it might be. (2) Painful swellings of long bones occurring at some distance of time after the injury which gave rise to them, were perhaps too often regarded and treated as periostitis, whereas almost always the pain and swelling were due to inflammatory changes in the bone itself, which was relieved by free incision. (3) Occasionally, as in the last case, where the periosteum was the chief seat of disease, the fullest trial of internal treatment failed to benefit, while linear osteotomy seemed to give prompt and permanent relief.—*Brit. Med. Jnl.*

lower jaw at the symphysis, with a transverse wound two inches in length over the mental protuberance. The fragments of the jaw were freely movable, and it was desirable to apply an apparatus which would fix the bone in place immovably, and at the same time allow the wound to be dressed. Accordingly, a Hodge's pessary was brought into use, by bending it so as to allow the chin to protrude through its ellipse. One bar was moulded so as to support the fracture anteriorly, the other steadied it from below, while the rounded ends afforded admirable lateral pressure on each side, at a point in front of the angles of the jaw. To the rounded ends of the pessary tapes were sewn, two on each side, over the padding, and secured over the head, or to a fillet, and around the neck by small buckles. For fractures of the inferior maxilla at or near the symphysis, with or without wound, the Hodge's pessary seems well adapted. It can be bent to fit any size of jaw, and in the qualities of comfort, lightness and coolness compares very favorably with the solid, cumbersome appliances included under the head of moulds.—*Jnl. Am. Med. Ass.*

ABSORPTION OF CARBOLIC ACID.—Dr. A. B. Ball reported a case of poisoning by a very small quantity of carbolic acid. The patient, a boy fourteen years of age, had been operated on by Dr. Sands for empyema, a free opening for drainage having been made under Lister spray, and a peat dressing applied. Three weeks before, when the peat-bag was received from Germany, it had been sprinkled with carbolic acid, and at the time of its application retained a slight odour of the acid. On the morning following the operation, Dr. Ball found the boy's mother in great consternation over the almost completely black appearance of the boy's urine. No other symptoms of carbolic-acid poisoning were noticeable. As it seemed very improbable that the discolouration of the urine was due to inhalation of the carbolic-acid spray, the peat-bag was suspected, and was found to have a faint, but distinct, odour of the acid. After removal of the bag, the dark colour of the urine disappeared entirely within the next twenty-four hours. On the establishment of the drainage-opening, air had entered the pleural cavity freely with each inspiration, and thus air, which had been carbolized by passing through the peat-bag,

THE USE OF HODGE'S PESSARY IN FRACTURES OF THE LOWER JAW.—Dr. W. J. Naismith (*Lancet*) describes a fracture of the

had been presented constantly to a large absorptive surface.—*N. Y. Med. Jnl.*

TREATMENT OF BUBOES.—M. Kempen recommends multiple punctures with a lancet, plunged deeply into the bubo. The punctures should be made early. The result is very gratifying; in many cases, even before pus forms, the inflammatory tension disappears, and resolution proceeds rapidly. In case pus has formed, it is pressed out, and an injection of a 1-12 solution of chloride of zinc made into the bubo. A dressing of dry charpie is used.

When the bubo has already reached the suppurative stage, it is punctured as in the above-described manner, but not freely incised, and after being thoroughly washed with carbolized water, two-and-a-half per cent., the solution of chloride of zinc is injected, and dry charpie applied as before.

The dressings are used three times a day.—*Med. News.*

Midwifery.

JUNGLUTH (Aix-la-Chapelle): ON THE TREATMENT OF PLACENTA PRÆVIA.—As a general principle, says the author, the membranes which cover a foetus should not be ruptured until the os is nearly or quite dilated. Theoretically, this is true in cases of placenta prævia, but practically it is not always so, since hasty delivery, according to most recent writers, is requisite *whenever* the bleeding becomes dangerous. Much of such teaching, however, is based upon the mistaken hypothesis, that in placenta prævia an effective stoppage of hæmorrhage can only be accomplished by the emptying of the uterus, without regard to the fact that other dangers which threaten both mother and child are slightly passed over as unavoidable ills of lesser magnitude. Dissatisfaction with methods in vogue induced the author to adopt the plan of treatment which he describes in this paper. The following advantages are claimed for his method: (1) uniform simplicity in adaptability, and absence of danger in all cases of placenta prævia centralis and lateralis, only those cases being excepted which continue to the fourth month of pregnancy and then suffer abortion; (2) immediate and permanent stoppage of hæmorrhage during the period of active

pains, until the os uteri is completely dilated, and avoidance of post-partum hæmorrhage: (3) preservation of the fetal envelope until the os is entirely dilated, avoidance of rupture of the cervix, and facilitation of turning and extraction of a living child in cases in which such an operation is necessary: (4) maintenance, and even improvement, of the powers of the parturient woman, from the moment in which treatment begins, and lessening of the danger of collapse from anæmia of the brain at the moment of the child's birth, an accident which frequently threatens. The potent means for accomplishing this consists in nothing more nor less than the efficient tamponade of the cervical canal with sponge tents. In spite of the almost universal prejudice against these instruments, the author claims that they can be so made as to be perfectly aseptic. The method is as follows: A portion of fine-mesh sponges, of different sizes, is beaten thoroughly with a wooden hammer, and then washed for eight or ten minutes with a two per cent. solution of hypermanganate of potash. The washing is repeated in a two per cent. solution of binocalate of potash until the mass has assumed a yellowish-white appearance, and until no sediment remains in the solution. Finally it is washed in distilled water, until the addition of limewater fails to give an oxalic acid reaction. This method will also entirely remove the peculiar odour of sponge. The mass is then soaked for two days in a five per cent. solution of the purest carbolic acid. The separate sponges are next squeezed two or three times in a ten per cent. solution of the best white gum arabic, and are strung lengthwise upon a piece of tin wire. Carbolized thread is then wound around them, and the wire is removed. They are next dried in a warm place, between leaves of blotting paper, and when absolutely dry, the surrounding thread is removed. Sponges thus prepared were found to be thoroughly aseptic after the most careful and accurate tests. Before they are used in a case of placenta prævia, the vagina and vulva are first disinfected with a warm two per cent solution of carbolic acid. All clots are removed, and one or more tents, according to the nature of the case, are thrust sufficiently high into the cervix, and are allowed to remain, on an average, from six to eight hours. Should hæmorrhage occur within

an hour after the introduction of the tents, they must be replaced by others which will more effectually close the canal. The patient will be gaining strength while dilatation is going on, with rest and freedom from hæmorrhage. After the tents have accomplished their work, the dilatation must be continued by means of others, with the same antiseptic precautions, which are to be retained from four to eight hours. Two series of tents will usually be sufficient, but a third should be employed if necessary to cause full and complete dilatation. After this last-mentioned stage has been reached, the hand is to be passed into the womb, pushing aside enough of the placenta to accomplish this, the feet are to be seized, the membranes ruptured, and the fœtus turned and extracted as quickly as possible. The navel string being cut, complete removal of the placenta is to be effected, if nature have not already cast it off. The condition of the child will be the same, good or bad, which it was before the dilatation was commenced. When the tents are removed, usually a few clots are found in the lower uterine segment. Should hæmorrhage occur from the premature withdrawal of the tampon, the entire uterine cavity must be tamponed with three or four of the larger sponge cylinders, and, after six or eight hours, these may be withdrawn, one by one; the process being always preceded by disinfection of the vagina. The foregoing applies equally well when the placenta is central, and when it is lateral. If the head should present, after complete dilatation, and active pains exist, nature may accomplish the delivery, turning not being requisite. Frequent doses of ergot are useful to anticipate contingencies, and it should be given, if in the powdered form, in doses of eight grains. A detailed report of seven cases follows, in which the author carried out his method with perfect success. All the mothers recovered, three of the children were either dead at birth, or died within a few days. The history of these seven cases is an interesting study.—*Am. Jnl. of Obstet.*

THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.—(Dr. Fordyce Barker, M.D., LL.D.)—Dr. Barker before reading his paper (*Med. News*) alluded in justly complimentary terms to the orator, Dr. Thomas, whose paper they were about to discuss. He said

that its authority, its earnestness, and sincerity, and its colouring of being based on experience and observation instead of being deduced from preconceived theory gave the paper a plausible appearance of scientific truth, which would secure its acceptance without question by many. The more eminent the author of errors, and the more admirable the artistic merits of a paper promulgating such errors, the more necessary it was to meet such errors boldly and refute them promptly.

In the paper which we are now to discuss, the author distinctly avows his belief, without any qualification, that "puerperal fever is puerperal septicæmia," and that "it matters not whether it assume the form of metritis, phlebitis, cellulitis, peritonitis, or lymphangitis, the essence of the disorder is a poison, which is absorbed into the blood of the parturient woman through some solution of continuity." Not only the sentence quoted, but the whole tenor of the paper must convey to the unbiased mind that it is the well defined opinion of the author that metritis, phlebitis, peritonitis, and cellulitis are never seen in the puerperal woman except as the result of an initial lesion, which permits the absorption of a specific poison through the parturient canal, either from the atmosphere—or from direct infection by doctors or nurses from neglect or carelessness—or other agents brought in contact with the sexual organs.

The tendency to this pathological view has been rapidly growing within the past few years, as a result of the enthusiastic interest excited chiefly by the important investigations of our German co-workers, who have so zealously studied the character and effects of the micro-organisms in puerperal women *in hospitals*. In several of the most recent and the most excellent systematic works on obstetrics, I have observed that nothing is said of the various local phlegmasiæ which are liable to arise in puerperal women as a consequence of parturition, and that they are only alluded to in connection with the subject of septicæmia. This seems to me a very grave omission, which must seriously embarrass young obstetricians, who consult these works for information when normal convalescence is interrupted by any of the local inflammations. No one, as yet, has maintained that the process of parturition and the puerperal state exempt a woman

from those causes which induce local inflammation in the non-*puerperal*, or will deny that the process of parturition, and other attendant conditions besides the absorption of septic poison, may be the efficient cause of local inflammation; and I here state my conviction that in private practice, when there is no epidemic influence, twenty cases of local inflammation, due to such causes, will be met with where one will be found due to septic absorption.

It is hardly necessary to say—as I have before expressed the same opinions in a work published some years ago—that I am entirely in accord with the author in his preliminary remarks as to the peculiarities in the system of *puerperal* women. I suppose that all educated men now know that the blood of a pregnant woman is in a state of hyperinosis, and that, as a rule, “her nervous system is in a plus state of sensitiveness and excitability, and influences which are very controllable in the non-*puerperal* state produce very evil results here.” But it is very evident that in certain points our opinions are wide apart. He regards certain conditions, which always are found following normal labour, and always occur in normal *puerperal* convalescence, as pathological, but which I believe to be purely physiological.

The ancients believed in the poisonous nature of the menstrual fluid. But on the evening of December 6, 1883, in this Academy of Medicine, I first heard the full evolution of this doctrine clearly enunciated. The lochia are described as an offensive fluid, made up of dead and decaying animal tissues, which poisons freshly made, unprotected wounds.

Can it be true that the process necessary for the birth of the human race is always attended with the development of a deadly poison whose malignant effects must inevitably prevent the spontaneous and kindly healing of such little traumatisms as always result from the process, and that, therefore, it is the duty of the accoucheur to take preventive measures of the character proposed? Does every parturient woman, in performing the function of maternity, like the scorpion, that carries in its tail an agent for suicide, if death is threatened by fire, physiologically generate an equally fatal poison in a corresponding locality, which the obstetrician must guard against by means that are most inconvenient,

alarming, and not altogether free from danger?

I do not intend now to examine the question, which I have before discussed very thoroughly, and my views have long been published, whether there is not a distinct disease, most appropriately denominated *puerperal* fever, when, if there be any septicæmia, it must be a consequence of a primary disease, and not a cause.

All we know of any disease is derived from the study of its etiology, its clinical phenomena, and its anatomical lesions. The epidemic disease to which I have just referred differs in all characteristic points from what is known as septicæmia. It differs in its origin, its modes of attack, its symptoms, and its anatomical lesions. The symptoms are frequently manifested a day or two before or even during labour, even when the child is subsequently born alive. In septicæmia the symptoms are never observed before or during labour, except when the fetus is putrid. The former disease, *puerperal* fever, originates from epidemic causes, and from contagion and infection. The latter, from nosocomial malaria, from autogenetic infection, and from direct inoculation. Can a woman after childbirth be exposed to the danger of receiving the poison which produces septicæmia in larger doses than when she has retained in her uterus a portion of putrid, decomposed placenta? Yet I do not believe there is a single person who has had considerable obstetric practice for twenty years who has not had more than once to remove portions of a putrid placenta which has been retained for days, and the patient has had no disturbance of such severity that he would call it *puerperal* fever.

Before leaving this part of the subject now under discussion, I shall briefly allude to one other point, which strikingly illustrates the difference between *puerperal* fever and septicæmia. I think there can be no doubt that the majority of the profession believe that all those causes of nosocomial malaria, such as aggregation, bad ventilation, contact with septic material, etc., which have a tendency to induce septicæmia in surgical cases, have an equal tendency to develop the disease known as *puerperal* fever in women recently confined. But this does not prove that the diseases are identical, for I think there is abundant evidence that, while these causes are always

requisite for the development of surgical septicæmia, puerperal fever may be very epidemic when these causes are wholly wanting.

In the early months of 1873, puerperal fever prevailed in the best parts of the city, and in that class of society possessed of abundant means and living under as good sanitary conditions as are possible in any large city, to a degree and extent here unknown for the previous twenty-five years. The deaths from this disease in the hospitals, and in the wards of the city where the poor are aggregated, were much less than in many former years. While in the wealthy wards the death rate was very large. In other words, I may say that during this period, in those wards of the city where the causes of septicæmia must have existed in the greatest abundance, the mortality was nearly one-third less from puerperal fever, in proportion to the population, than in the best parts of the city, where these causes of septicæmia could have existed only in a very limited degree.

From all these considerations, I think that if all the knowledge of this disease be derived from authors who have studied it in hospitals exclusively; it will be limited and one-sided, and the deductions, both as to its pathology and treatment, must in many instances be erroneous and unsafe. Especially must this be the case with those whose well-deserved eminence as operators compels them to be brought in frequent contact with surgical septicæmia, and to witness the terrible results which this produces after the most skilful performance of such operations as laparotomy and ovariectomy. Indeed, one can hardly understand how such a surgeon, who accepts the theory and believes in the necessity of such a prophylaxis and such treatment as are insisted upon in the paper under discussion, would ever dare to enter the room of a puerperal woman.

There are many other details in this connection which I am tempted to discuss, but these will doubtless receive due attention from the speakers who will follow me. I shall, therefore, content myself by expressing an opinion which will surprise many who have been carried along by the popular wave of the septic theory as the initial cause of most of the puerperal diseases. My conviction is strong, based

partly on individual experience, but chiefly on a careful study of the clinical midwifery reports of private practice and all the literature of the subject in my possession—and this is very full as regards the English and French languages—that, outside of hospitals, less than two per cent. of the deaths after childbirth, are due to septicæmia. There are no statistics of private practice which demonstrate the error of this opinion. The belief of the septicæmists that terrible dangers threaten every woman in childbirth is based wholly on theory. Because the maternal system has certain peculiarities differing from its normal condition—because the lochia is a poisonous fluid—and because there is always a certain amount of traumatic lesion in the parturient canal following parturition, every child-bearing woman incurs a most hazardous risk. This is a blunt statement of the argument and its deductions.

The limit of time which, in justice to others who follow, I have allowed myself will permit but a very few remarks on “the prophylactic measures which should be adopted in all midwifery cases, whether they occur in hospital or in private practice,” as the author of the paper distinctly avows. If “she who is about to bring forth” must “be treated as one about to go through the perils of a capital operation;” if all those preparations, so definitely enumerated, which gynæcological surgeons insist upon previous to an ovariectomy or a laparotomy, are necessary in ordinary labours; if the danger from childbearing be so great that a wise and prudent obstetrician is justified in subjecting his patient to the hazardous depression of intense anxiety and fearful doubt as to results, and in surrounding her with the vivid apprehension of her family, instead of stimulating and cheering her with the great happiness of maternity and the hope of increased interest and love from her husband; if all or even a considerable part of the details mentioned are necessary “to save thousands of lives which are now lost,” and to spare “thousands of desolate households the sorrow of losing their female heads”—then it seems to me evident that the State should make childbearing a penal offence for all those families who do not have a sufficient annual income to make it possible to carry out all these requirements.

The description given of puerperal fever,

true as it may be, in its outlines, of the septicæmia which gynæcological surgeons are so often forced to encounter, I think, will strike obstetricians familiar with the disease in the lying-in chamber as the ideal picture of a poet, differing as much from the scientific description of trained clinical observation as the pictures of natural scenery by a Byron or a George Sand would differ from a scientific description of a mountain or a lake by Humboldt.

As to diagnosis, I cannot regard the symptoms mentioned, even in their totality, as pathognomonic of septicæmia, as all of them are to be found in other puerperal affections, when there is no evidence of septic absorption, unless with the author it be assumed that all puerperal disturbances are due to this cause alone. It is made an important point by the author to determine whether "the septic disease which is developing has originated in wounds situated between the os internum uteri and the vulva, or in the endometrium, above the former point." He says that "usually the question has to be decided by the efficacy or inefficacy of frequent germicide vaginal injections in bringing down the temperature and controlling other grave symptoms."

Now, I look at this subject from an entirely different point of view, and, as I have not the time to examine in detail the treatment inculcated in the paper we are now discussing, I must be content with the expression of my convictions by a few general propositions.

In puerperal fever, as met in private practice, we have to treat the *consequences* of some form of blood-poisoning. This may or may not be septic poisoning. In private practice, I think it generally due to some occult, possibly atmospheric, epidemic influence; in hospital patients, nosocomial malaria, often associated with septic poisoning.

No treatment which interrupts the normal physiological processes—such as the retrograde metamorphosis of involution, the fatty transformation of the component fibres of the uterus, or the cicatrization of its internal surface by the exudation of organizable lymph, and the development of a new layer of mucous membrane, or the healing of traumatic lesions—can be justified, unless positive symptoms, now well understood in science, demonstrate their necessity.

Antiseptic injections, both vaginal and intrauterine, are of great service when the indications for their use are clearly shown by local signs or general symptoms, but they cannot be recommended with safety as a routine practice on theoretical grounds, as, for obvious reasons, they may be most detrimental in retarding the cicatrization of lesions and the other processes of normal convalescence, and are otherwise dangerous.

I shall only add a few words in regard to refrigeration as a means of reducing fever in puerperal diseases. I have no question that it may be useful in some cases, but my own experience in this method of treatment has not been favourable. Cold will effectively and usefully reduce the temperature in active inflammations and acute fevers, but in adynamic diseases and in hectic fever this must be attended with a rapid waste of tissue more dangerous than the pyrexia. In three cases which I have seen with others—two a year ago and one this winter—where the coil had been assiduously kept over the abdomen, most of the time two or three days, the conditions in each were remarkably similar. The abdomen was blanched, colourless, and not sensitive to pressure; the patients all avowed that the coil gave them great comfort, but the temperature was very high in all—in one 104.3°, and in the other two 105°; the pulse was very rapid and feeble, the heart's action extremely weak, with pulmonary symptoms—such as short, rapid, shallow respiration—which caused grave apprehension that there might be latent centric pneumonia. After some discussion, I induced my friends to remove the refrigerating coil, and, in its place, to cover the abdomen with flannel saturated with the oil of turpentine, for the purpose of stimulating vaso-motor action, restoring the capillary and equalizing the general circulation. All were taking quinine in large doses. This was greatly diminished or wholly stopped, and digitalis and ammonia in full dose were substituted. In a few hours the change in each of these cases was most remarkable; the temperature was reduced from two to three degrees, the pulse was greatly lessened in frequency and increased in force, and all pulmonary symptoms, which had caused so much anxiety, had disappeared. Two of these cases recovered and are still living. The third, who had also been treated by anti-

septic vaginal and uterine injections, was apparently convalescent, when suddenly she became much worse; collapse supervened, which was found to be due to a sudden development of diphtheritic membranes, which covered the mucous surface of the vulva and vagina, the result of carelessness and dirtiness of the nurse. The patient died in a few hours.

I now ask permission to refer to a matter outside of the question of the prevention and treatment of puerperal fever, but in behalf of the "truth of history." I ask any who may feel sufficient interest, to turn to page 320 of my work on the *Puerperal Diseases*, where they will find on that and the following pages the subject of intrauterine injections fully discussed.

I shall only add that my creed to-day is fully avowed on page 476 of the book to which I have before referred, and, unless in the future I learn new facts and new arguments to change my faith, I shall "die impenitent."

In conclusion he stated that in the early part of his career he used antiseptic vaginal injections. This practice he had kept up until within the last three years, when his ideas had changed in consequence of remarks heard at the International Congress at London. After his return to New York he had first reduced the strength of his carbolic solutions and finally gave up using vaginal injections altogether, unless in consequence of some special condition.

PAROVARIAN CYSTS.—Dr. W. Goodell, exhibited two cysts of the parovarium. In commenting upon these specimens, he remarked that both patients got well; he, indeed, had never lost a patient from whom he had removed a parovarian cyst. In both cases, a correct diagnosis was made previous to the operation. One interesting diagnostic point was the complete absence of the *facies ovariana*. The colour in the cheeks was good, and the countenance was free from the anxious expression present in cases of ovarian tumour. One tumour had existed for ten years, the other for one. Another important point in the differential diagnosis is not only the flaccidity of the tumour, but its variable degrees of flaccidity. Upon inspection, it is seen to reach to the sternum, and seems to occupy a large portion of the abdominal cavity, but, when the hands are placed upon its sternal edge, it

can be compressed to the level of the umbilicus. An ovarian cyst, on the contrary, is hard and incompressible. Exceptions to this rule are very rare,—that is, either a tense parovarian cyst or a flaccid ovarian one. A third important distinguishing point is the long time—ten years in one case— which the tumour existed, and, further, without marked deterioration of health. After being tapped, these tumours usually refill, but occasionally they do not, and a cure is thus brought about. The fluid withdrawn has been in every case limpid, and generally colourless, but it has sometimes had in his experience an emerald tint. These tumours are generally free from serious adhesions, but if in an operation for the removal of one, adhesions should exist, where for any reason their forcible separation would be unadvisable, or the cyst were intra-ligamentous, he would not hesitate to leave the adherent portion of the cyst-wall, or the whole cyst itself, after making a big hole in it, as the fluid it secretes is bland and unirritating to the peritoneum.

Any one examining one of these cysts for the first time would consider it to be of ovarian origin; for it is only by patient search that the ovary can be found spread out over the cyst-wall. The microscope will decide with certainty in any otherwise doubtful case. The tumour is covered with a beautiful network of veins.

When a cyst of the parovarium exists on one side, the ovary of the opposite side is usually found to be diseased, and should be removed. In these cases, the remaining ovary was seen to be enlarged, and the site of a small ruptured cyst was pointed out. The fallopian tube was also enlarged, and the terminal vesicle of the fallopian tube, or the hydatid of Morgagni, was enlarged and cystic. This vesicle sometimes attains the size of an orange, and often ruptures spontaneously without any bad effects. A few years ago, one of these small cysts ruptured while he was making an examination of the patient to ascertain its character.—*Philadelphia Medical Times*.

GELSEMIUM IN AFTER PAINS.—Dr. Holt (*N. Y. Med. Jnl.*) recommends the fluid extract of gelsemium, in doses of a fraction of a drop, frequently repeated, in severe after pains. In one case where he had used it relief had been prompt and decided.

THE
Canadian Practitioner,
 (FORMERLY JOURNAL OF MEDICAL SCIENCE.)

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial Medical Associations will oblige by forwarding reports of the proceedings of their Associations.*

TORONTO, MARCH, 1884.

SANITARY LECTURES AT THE CANADIAN INSTITUTE.

Beginning on the evening of Tuesday February 7th, and continued on the following Tuesdays a course of popular Lectures on Sanitary Subjects was delivered by members of the Provincial Board of Health at the Canadian Institute on Richmond street. The first lecture of the course, on "Preventable Waste of Life, Health and Wealth" was given by Dr. Oldright, the President of the Board of Health, to a large and influential audience in the Library of the Institute. The subject was treated in the happy and lucid style usual with the lecturer. The ensuing week Dr. Cassidy thoroughly investigated the Ventilation of Public Buildings, with particular reference to the air breathed by our school children. The last lecture of the course was given by the Secretary of the Board of Health and was upon "Our Zymotic Diseases, where they are and why."

The people are to be congratulated upon the progressive and appreciative spirit of the Canadian Institute, which induced them to inaugurate this course of lectures; and the thanks of the public should be extended, to those members of the Board of Health who evinced their zeal for the public welfare by consenting to give the interesting lectures referred to.

Habits formed by a long period of freedom from or ignorance of danger and disaster, require a corresponding length of time for

radical change. Much time, labour and patience are necessary to teach old dogs new tricks. The people must be taught the positive advantages that result from the applications of science to the laws of health. And they must be warned of the no less positive disaster which attends the neglect or infringement of those laws. The education of the present generation is being carried on by lectures such as those we are discussing. The education of the rising generation is an easier matter, yet requiring diligent care and anxious circumspection. The Board of Health, at the request of the Government, are preparing a manual of hygiene for use in our schools. When the principles of sanitary science are thus early inculcated many of the difficulties incident to the present time will have passed away, and the seeds now being sown with tedious care and anxious solicitude will bear fruit an hundred fold, and the labours of future sanitarians will be lightened. The happiness of the individual will thereby be increased. The wealth of the community materially augmented.

BODY SNATCHING.

There is abundant evidence that regulations are needed in the Republic south of us in order to insure an equable supply of anatomical material. Complaints arise from Chicago, Detroit, and other places, of the scarcity of this necessary appanage of medical schools. Heretofore, the quiet homes of the dead have alone been invaded by the sacrilegious hands of the resurrectionist; but now-a-days, the living have cause for fear. A story comes to us from Ohio, that a family of three persons were living together in a comfortable house—the building was consumed by fire, and vain search was made for the bodies of the three persons who were supposed to have perished in the flames. That this was not the case, however, was demonstrated by finding their bodies in the dissecting rooms of the Ohio Medical College in Cincinnati. Each body

bore evidence of violence as the cause of death. Considerable excitement ensued on this discovery, and some arrests were made. The impression is that the murders were committed for the sake of selling the bodies to the schools, and arson probably added to conceal the crime.

Whether this be a true tale or merely a sensational report, it is some indication that the medical schools have been driven to clandestine methods of acquiring their anatomical material. In Canada, we have not reached that stage of dire necessity, and it is to be hoped that we never will. Our Anatomy Act, such as it is, though its wording allows frequent evasions of its conditions, has yet been sufficient to satisfy the pressing needs of our schools. But the increasing size of our classes has created a demand for a larger number of subjects, and perhaps the improved methods of teaching and examining compel the use of the subject for demonstrations, and consequently limit the supply available for the ordinary purposes of dissection.

UNIVERSITY BANQUET.

The recent Annual Banquet of the University of Toronto, February 15th, was probably the most brilliant and successful educational gathering of the kind ever held in Canada. The speeches delivered were far above the average in point of merit, and showed a thoroughly earnest desire for the continuous advancement of higher education in Canada.

Among those present were Dr. Aikins, President of the Toronto School of Medicine; Dr. Geikie, President of Trinity Medical School; Dr. Walker, of Port Dover; Dr. MacLellan, of Trenton; Dr. Beemer, of London; Dr. Aiken, of Weston; Dr. Burt, of Paris; Dr. Nelles, of Thornhill; and the following from Toronto—Drs. Canniff, Chas. O'Reilly, Cassidy, W. T. O'Reilly, Thorburn, Bryce, Reeve, Geo. Wright, Pyne, Ross, White, Fulton, Sheard, Davidson, W. T. Stuart, Oldright, McFarlane, Adam

Wright, Britton, Cameron, Spencer, Beaumont Aikins, S. Stewart, Ball, and Buchan.

Drs. Aikins and Geikie responded for affiliated Colleges. Dr. Cameron was one of the Vice-Chairmen.

COUNCIL EXAMINATIONS.

The Final Written Examinations of the College of Physicians and Surgeons of Ontario will commence at 9 a.m., Tuesday, April 1st, in Toronto and Kingston. The Final Oral Examination will commence in Toronto on Tuesday, April 8th at 10 a.m.; in Kingston on Thursday, April 10th, at 3 p.m.

The Primary Examination will commence in Kingston on Friday, April 11th, at 3 p.m.; in Toronto, on Monday, April 14th, at 10 a.m.

THE CARTWRIGHT LECTURES.—Professor Burt G. Wilder, M.D., of Cornell University, delivered these lectures this year. The general subject was "Methods of Studying the Brain." The lectures appear in the *New York Medical Journal* and are well worth careful perusal. Although from Dr. Wilder's previous writings one is inclined to be fearful of meeting with strange and unfamiliar terms, they do not occur in such profusion as to bewilder the reader and a little extra thought will serve to overcome the difficulty. In addition Dr. Wilder promises in his closing lecture to offer some considerations respecting the employment of these foreign looking descriptive terms. During the delivery of the lecture, cards were handed around, containing the unfamiliar terms with their more common equivalents.

THE *Sanitarian* has resumed its mensual appearance. The February number contains some interesting and instructive articles. We would join our voice to those who have advised the Editor to have the leaves of his journal cut.

THE *Quinologist* has ceased publication with its February number.

THE ESTABLISHMENT OF A STATE EXAMINING BOARD FOR NEW YORK.—The State Medical Society of New York, at its recent annual session had two bills under consideration with this object in view. The matter was very thoroughly discussed and it was deemed inadvisable to press any specific measure upon the Legislature at present. A special committee composed of the Committee on Legislation and Dr. Loomis Dr. Vanderveer and Dr. Curtis was appointed to report a bill at the next annual session. The difficulty appeared to depend upon the school men who feared that their rights and privileges were about to be infringed.

THE BRITISH MEDICAL ASSOCIATION have organized a scheme for relief to suffering medical men, under the title of the Medical Sickness Annuity and Life Assurance Society. It has been registered under the Friendly Societies Act. The Society is in good hands, and has fair prospects of becoming a success, and accomplishing much good. J Milner Fothergill, in the *Phil. Med. Times*, cannot help acknowledging its usefulness; nor can he repress the sneer that flows from his pen as he writes the grudging encomium.

THE report of Dr. Rolph Lesslie's death in a battle in the Soudan, which saddened many readers of the secular press, we are pleased to learn is untrue. He had at the time of his reported death just returned to London from the Congo River. Dr. Armand Lesslie, who was the companion of Dr. Rolph Lesslie, and Dr. Kirkpatrick, in the Red Cross Society, in the Turkish war, was the unfortunate cause of the rumour.

It is said that an unknown benefactor of McGill College, Montreal, intends presenting that University with a new building, for the purposes of a Faculty of Applied Science.

SOME time ago a whale was stranded on the coast of Scotland. The carcase was purchased by a party, (doubtless a native of the place), who advertised that it was to be disemboweled under the superintendence of Professor Strothers. The astute owner of the whale erected a platform, and charged a sum for admission to see the *savants* at work, and engaged a band to play selections while the scientists worked.

SOME damage was done to the office of the British Medical Association, in the Strand, on the 30th January, by a fire in an adjoining building. The room occupied by the compositors of the journal and the editor's room were injured, but no serious loss occurred.

THE *Planet* has shed its effulgence upon our table, and its scintillations (in brackets) have lightened the reports of the New York Medical Societies. The old code flag now floats from the *Planet's* pole. The opponents of that code had better keep their weather eye open.

THE Medical Society of the State of New York, appointed as delegates to the Canadian Medical Association, Drs. L. E. Felton, C. M. Wilson, C. Sawyer, F. C. Curtis, and D. V. O'Leary; and to the Ontario Medical Association, Drs. H. R. Hopkins and L. Howe.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

December 20th, 1883.

The President, Dr. Graham, in the chair. The minutes were read and confirmed. Dr. Burnham and Dr. Natrass were elected to membership.

Dr. Nevitt exhibited a case of skin disease. W. D., æt. 56, temperate and cleanly in his habits; never had syphilis; eight years ago noticed a rash appear on the legs, accompanied by great itching especially at night: there was a little watery discharge from each patch, at first, but afterwards it was not noticed. The disease became general,

spreading over the back, belly, shoulders, and arms. The face was free from it. The trouble continued for seven years, with periods of comparative rest; it was better in winter; in summer the profuse perspirations brought on by his labour, wood-chopping, seemed to aggravate the itching. For sixteen or eighteen months he has been free from it. Three months ago after a profuse perspiration the rash again appeared just as before. The skin was torn by the nails, especially on the outer sides of the thighs, on the belly, and on the back of the neck, and between the shoulders. A small papular eruption was present between the blood-scabbed tubercles. Treatment had been varied and unsuccessful.

Dr. Graham thought it was a papular eczema, and advised the application of ung. hydrarg. ammoniat. dilut.: and ung. zinci. oxid. Oil of cade might be serviceable and for the prurigo a dilute solution of soda bicarbonate.

Dr. Cameron mentioned a case of herpes zoster, commencing on the hand and ascending towards the trunk. He asked if this had often occurred in the experience of the members of the Society.

Dr. Nevitt thought it usually began centrally and advanced towards the periphery.

Dr. Davidson exhibited a pair of lungs, also a fibrinous mass which had been removed from the uterus. A portion of the tumour from the uterus was found to consist of a mass of red blood corpuscles with interlacing bands of connective tissue, a section from another portion of the tumour presented all the appearances of laminated fibrin. Dr. Davidson cited a case from Velpeau's surgery which closely resembled this in its clinical history. It was called a fibrinous concretion or simple clot of indurated blood; a new variety of polypus resulting from some discharge of blood engrafting itself upon the neck of the uterus and ultimately becoming organized.

Dr. McPhedran asked if it was necessarily fibrin, or was it membranous.

Dr. Davidson felt sure it was fibrin. The secundines all came away in the abortion. He had given ergot.

Dr. Cameron thought it might be a polypus from its well organized structure, and because at that stage of an abortion such a mass would seldom be found. The absence of a pedicle did not prove it was not a polypus, as separation may have occurred.

The specimens were referred to the Microscopical Committee.

Dr. Cameron exhibited a foetus between the second and third month of utero-gestation. The interest of the specimen resides chiefly in comparison with one presented at the last meeting. The patients both menstruated for the last time about the middle of September, both progressed normally for the first two months, and then began to suffer from rachialgia and uterine colic followed by hæmorrhage. This lasted in both cases for a month when the gestation terminated, in the former case through the use of the sound and curette owing to the urgency of the symptoms and the other by spontaneous expulsion of the foetus. Strange to say, in the case of instrumental interference the ovum was expelled entire; in the case of natural extrusion the amnion was ruptured, the foetus and a considerable portion of the umbilical cord escaped followed after the lapse of several hours by the sac and placenta. The ova were of equal size in the two cases, but in the former, the foetus was not one third as large as the latter. There was less subsequent hæmorrhage and lochia in the instrumental case and a better immediate recovery. A month later, owing to indiscretions in the way of exercise and exposure to cold, a mild parametritis developed in the former case, and the latter has not been free from symptoms, probably the result of rekindling of a former phlegmon in the pelvis.

Dr. Carson thought a month a long time to allow the hæmorrhage to go on. If in four or five days it did not cease, he would proceed to empty the uterus.

Dr. Macfarlane in his practice rarely used instruments, but gave ergot for two or three days and waited. He thought if the finger was introduced all would come away.

Dr. Macdonald considered the abortion justifiable. He thought the only question was as regards the means. He plugged with carbolized cotton and afterwards syringed with carbolized water. The plug was left in for twelve or twenty-four hours. He had generally found this plan efficacious.

Dr. Cameron said that he had used ergot for ten days, and also hot water injections. He considered the use of the dull curette harmless; he plugged after its use; the plug came away in two hours. In this case he had thought there was a fibroid he

had passed a sound for five inches, and applied Churchill's iodine.

Dr. Cameron also showed a fleshy mass four by three inches, a portion of a cancerous uterus removed a few days ago by Dr. U. Ogden, in the Toronto General Hospital, by means of the wire ecraseur, and Paquelin's thermo-cautery, and the curette. The patient is a Yorkshire woman, forty-one years of age, and the mother of fourteen children; three of whom were born within 370 days. Three months ago, when eight months pregnant with her last child, she was seized with hæmorrhage, not having presented previous symptoms of any trouble in the organs of generation. Dr. Wilcock, who was called, finding a soft bleeding mass in the site of the cervix, suspected placenta prævia and called in Dr. Macchell. On making a more thorough examination it was discovered to be a malignant growth and styptics were successfully applied. On further consultation, it was determined to allow gestation to proceed to term which it did successfully when Dr. Wilcock delivered the patient by means of forceps of a full grown, living and healthy child. Two months later the woman was admitted into Toronto General Hospital, under Dr. Ogden's care for operation. During the operation the circular artery was twice tapped and considerable blood was lost, so that at its completion the patient was very faint and exsanguine. Autotransfusion by bandaging and elevating the legs was practised, and ether and brandy administered hypodermically, and warm milk given *per orem*; under which treatment the patient rallied nicely and progressed favourably. The subsequent treatment consisted in removing the vaginal packing of carbolized absorbent cotton and the subsulphate of iron plugs on the fifth day, the application of a strong solution of chloride of zinc (3 vi. ad. ʒ i.) to the stump together with repacking of the upper portion of the vagina with absorbent cotton soaked in a solution of bicarbonate of soda. The lower portion of the canal was syringed out twice daily with detergent and antiseptic solutions. Four days later the zinc plugs were removed and the vagina packed with iodoform on absorbent cotton. Two or three days later the patient returned home with directions to use two or three times daily Thomas' astringent and antiseptic lotion for such cases.

Dr. Macfarlane had been present at the

operation, and judging from the extensive attachments and bleeding, thought the tumour must have grown rapidly from the time gestation began. He thought it foolish to allow gestation to go on where the tendency was to rapid growth and hæmorrhage. He would have induced abortion.

Dr. Carson had seen the operation, and thought from the extensive growth that the labour would have required to be terminated by craniotomy.

Dr. Cameron said that two lives had to be considered. At eight months the child's life was of importance; therefore, he thought Cæsarean section preferable to craniotomy. Statistics go to show that it is better to allow gestation to proceed to term. A temporary relief has been known to follow.

Dr. Macfarlane spoke of a case in the Toronto General Hospital. The patient had been a street-car driver for two years. He had suffered from pain in the lumbar region, but continued at work until five weeks before admission. Dr. Richardson saw him; applied a fly-blister, with temporary relief, and sent him to the hospital. Dr. Macfarlane found him with the right leg flexed and abducted; right kidney painful; right lumbar region measured more than the left; diagnosed peri-nephric abscess; exploring needle revealed nothing. *Post mortem* examination showed nephritis, with pus in cavity; the structure of the kidney destroyed. He promised to present a full report of the case at a future meeting.

Dr. Workman and Dr. Covernton were appointed a committee to draft a resolution of condolence to the family of the late Dr. Riddel.

The resignation of the Secretary, Dr. J. T. Duncan, was read and accepted. Dr. G. B. Smith was elected to the place rendered vacant. The meeting then adjourned.

January 17th, 1884.

The President, Dr. Graham, in the chair. The minutes were read and confirmed.

Dr. Barrick was proposed for membership.

Dr. Reeve presented a patient, a little girl, in whose left eye there was slowly progressive superficial ulceration of the whole surface of the cornea. She was first seen ten months ago, when the ulceration was very slight. He had used the actual cau-

tery, passing it rapidly over the cornea, with no beneficial result, although such treatment had been successful in two other cases which had come under his observation. The cornea was not opaque. The child is poorly nourished, although not strumous nor syphilitic. The treatment had been mainly constitutional. He mentioned a similar case which had come under his treatment, in an adult, in which, notwithstanding treatment, both eyes had been lost.

Dr. Oldright exhibited a tumour removed by Dr. Ball from a female patient. Two years before he had presented to the Society a similar tumour, trilobated, which had been removed from the same woman. At that time it was decided to be a myxo-sarcomatous growth. There had been no recurrence of the tumour until nine months ago, when it began a little higher up on the thigh, and involved the adductor muscles. Portions of the present specimen had been submitted for microscopical examination to Dr. W. H. B. Aikins and Mr. Foster. They agreed upon the diagnosis given two years ago of myxo-sarcoma. The patient was thirty years of age. The prognosis was bad.

Dr. Cameron presented the following specimens :

J. S., æt. 51.—Somewhat more than a year ago, while in seeming good health, began to pass blood in his urine. On applying to some physicians in the neighbourhood of his home, in north-west Ontario, a large, hard, painless tumour was discovered in the right hypochondrium, bulging forward, and palpable; but not bulging posteriorly, and then thought to be connected with the liver. The hæmaturia, continuing in spite of treatment by the usual remedies, he came to Toronto and consulted Dr. Temple in March last. I then saw him with Dr. Temple, and we had no difficulty at that time in tracing the connection of the tumour with the right kidney, and by exclusion assigning to it a malignant character. The microscopic examination of the urine revealed nothing abnormal except the presence in great abundance of red blood corpuscles. The patient was placed on a tonic regimen, and sent home. He returned to the city in December, to consult Dr. Aikins, who referred him to Dr. H. H. Wright, by whom he was again admitted to a private ward in

the Toronto General Hospital, and with whom I again saw him. The tumour had somewhat increased in size, and become adherent to the colon which passed over its anterior margin. The hæmaturia had ceased, and was succeeded by pyuria; and no pain, vascular distension or œdema had yet occurred. An indistinct fluctuation was perhaps perceptible through the tumour. He said that after going home last March he had gained weight at the rate of half a pound a day for a short time; but subsequently lost weight again slowly. The microscope revealed only pyuria; no casts, no epithelium. A slightly cachectic tint of skin had developed. While in the hospital he contracted erysipelas of the face, accompanied by diarrhœa, and speedily succumbed.

J. C., æt. 53.—Admitted to the Toronto General Hospital, 4th December, 1883, emaciated and debilitated to the last degree. Complained of incoercible vomiting, obstipation, and tumour in epigastrium. Said that he had been perfectly well up to the 22nd of October last, on which day, when at work, he was seized with pain in the stomach and vomiting. That from that moment nothing had passed his bowels; and nothing had been retained on his stomach. Pain was not specially complained of.

On examination a well defined round swelling, perceptible alike to sight, and touch was found in the epigastric region, about the middle line, and much more circumscribed than the transverse ridge or band often produced by malignant omentum. Nothing else noticeable in the abdomen or elsewhere, except the extreme emaciation. No manifest cachexia. Obstruction of pylorus was diagnosed, and the idea of gastrotomy was canvassed with a view either to dilate pylorus digitally or remove the obstruction by section. The patient's condition, however, did not seem to warrant interference, although he was perfectly rational, and earnestly desired operation. An attempt to maintain life by rectal alimentation was made, but failed, and the patient succumbed from sheer starvation on 9th December.

Dr. George Wright had had a case of malignant disease of kidney similar to that just related only with this marked difference, that a spasmodic condition occasionally present caused severe pain followed by

hæmaturia. This pain lasted for years being especially severe during the last two years of patient's life. The pain simulated that of renal colic from calculi.

Dr. Cameron remarked that it was not uncommon to have renal colic from the passage of blood down the ureter.

Dr. Graham showed a brain removed from a patient of Dr. McCollum's with the following history: On Sunday, December 30th, was called to see Mrs. K., in consultation with Dr. McCollum. She was fifty-two years of age, energetic and previously healthy. Had worked hard during her married life. In her first pregnancy twenty-five years ago, she had albuminuria and has since that time noticed a little weakness in the right arm and leg. About seven weeks ago she fell and injured her head and back. From this she rapidly recovered. On the Friday week previous to my seeing her, she suddenly fell and noticed that she had lost the use of her right arm and leg. Dr. McCollum was summoned and on arrival found she had to a great extent recovered the use of her arm and leg. She was very hysterical, and it was thought probable that the paralysis was of that nature. On Saturday, December 22nd, she complained of headache and the paralysis became more pronounced. On Sunday she was lying in bed quite cheerful and conscious. Pulse, 90; temperature, 100°; marked motor paralysis of right arm and leg; sensation slightly blunted; no facial paralysis. January 1st, 1884, she was better; no headache, no fever, cheerful. January 6th, two days previously she had again complained of headache; paralysis of extremities more pronounced; marked paralysis of face; slight loss of memory of words; could not form a sentence. Died January 13th.

Hæmorrhage was supposed to have occurred at the time she first fell. Softening of brain then followed. There were no symptoms until five weeks after the fall. The *post-mortem* showed a clot in the left hemisphere.

Dr. Cameron asked why there should have been a tender spot over the coagulum, or on what ground except a coincidence. Headache is often caused or induced by pachy-meningitis, or meningitis.

Dr. Graham said that a tender spot was well marked, and the *post mortem* showed that it was over the site of the hæmorrhage. It may have been due to pachy-meningitis.

Dr. McPhedran exhibited the larynx and trachea of a child who had died of diphtheritic laryngitis. On examining throat there was nothing to be seen, there was no tonsillitis but dyspnoea was extreme. All of his cases of membranous croup had been diphtheritic.

Dr. Graham mentioned a case in the General Hospital which had died suddenly. The *post mortem* disclosed no cause of death. There had been a recent pleurisy and the heart was hypertrophied without any known cause.

Dr. Cameron had seen this patient in the Hospital, he was then suffering from tonsillitis with œdema. He thought it probable that he may have died of œdema glottidis.

Dr. Graham also exhibited the specimens from a case of pyo-pneumo-thorax. On opening the chest the right side was partially filled with air and bad smelling pus. Lung carnified, pleura thickened, lung cavities not tubercular. Left lung emphysematous, otherwise healthy. The cavities in the right lung he thought were due to emboli, or breaking down of lung tissue from gangrene following pneumonia. An opening existed between the pleura and lung large enough to admit his finger.

Dr. Cameron had had this case under his care in the Hospital for some time. The patient was about fifty years of age, thin and gray, suffered from bronchiectasis or bronchitis. The presence of urinary casts led him to suspect granular kidney and the lung trouble may have followed the kidney disease. The left side was resonant. He had pain in the right side, expectoration, and the breath had the sweetish odour of pyæmia not the fœtid smell of gangrene. The emboli in liver and kidney might have been secondary to the lung trouble.

The Committee appointed to draft a resolution of condolence in regard to the late Dr. Riddell, submitted their resolutions which were adopted and a copy ordered to be conveyed to the family of deceased.

The Committee of the Directory for Nurses submitted their report for the year ending December 31st, 1883. The report showed that forty-nine nurses had registered, 104 nurses had been supplied by the Directory to applicants. The receipts had been \$148.50, and the expenses \$124, leaving a balance on hand of \$24.50.

The Committee considered the Directory had been very successful, but urged upon

the Society the need for heartier support from the profession.

The Committee were reappointed for the ensuing year, after which the Society adjourned.

January 31st, 1884.

The President, Dr. Graham, in the chair. The minutes being read and adopted.

Dr. Barrick was elected a member.

Dr. Nevitt read a paper upon the curability of tubercular meningitis. While admitting the almost universally fatal character of the disease, modern authors likewise admit the possibility of recovery in certain cases. Dr. Nevitt gave the details of several cases which had occurred in his practice, which had been diagnosed tubercular meningitis, and which contrary to all expectation had recovered. He referred to several others coming to his knowledge in the practice of medical men in this city. The difficulty of diagnosis is sometimes great, the belief that recovery is possible modifies the hopelessness of the prognosis.

Dr. George Wright said that while the weight of authority was against the curability of the affection, he felt disposed to concur with Dr. Nevitt as to the advisability of not giving too discouraging a prognosis. Cases in which tubercle had been found in the adult brain led him to suppose that tubercular meningitis had existed in childhood.

Dr. Macdonald agreed with Dr. Nevitt in the main difficulty, diagnosis. In his experience when the disease was well marked he had none recover. He was glad somebody had come forward to combat the theory of such a bad prognosis.

Dr. Reeve quoted Dr. Albutt as saying in his work on Ophthalmology (1871), that tuberculosis was not necessarily fatal, and cited cases of recovery. Results of ophthalmoscopic examinations were valuable in diagnosis, and ought to affect prognosis, as the result could be positively pointed out in twenty-five per cent. of cases. Changes took place in the optic nerve in half the cases. Crichton Brown said that tubercular meningitis was a frequent cause of idiocy.

Dr. Canniff had entertained the prevalent belief that if a patient recovered from meningitis it was not tubercular; if he died, it was. Recommended a guarded prognosis, as were an unfavourable one given it

would have a bad effect upon the patient. He thought that he would be a skilful physician who would be able to speak positively as to the result.

Dr. Graham said that about fourteen years ago he was interne in a hospital where he had frequent opportunities of making *post mortems* on children. He had found that frequently when tubercular meningitis was diagnosed the autopsy disclosed no sign of the deposit of tubercle in the brain, and on the contrary, that at times it was present when not suspected. The disease was often simulated by pneumonia. He had met with cases which had recovered although the symptoms had pointed strongly to tubercular trouble. He thought the first two cases cited by Dr. Nevitt were not probant; the third case was much stronger, and certainly might be regarded as tubercular. He was still inclined to hold the opinion that the disease was not curable.

Dr. Cameron said that the latest authorities, Bristowe, Quain, Reynolds, etc., admit the possibility of recovery. He did not understand why there should be optic lesions in the tubercular and none in the simple form of meningitis, both being inflammatory. In addition to the general symptoms, he suggested as an aid to the diagnosis the examination of the blood. In the tubercular form there is a great increase in the white corpuscles, not so in the simple. In three cases he had met with he was very positive as to a cure. In a fourth there had also been recovery with loss of intellectual power.

Dr. Carson, to show the difficulty of diagnosis, cited a case in which Professor Bennett, of Edinburgh, had diagnosed tubercular meningitis. The patient died, and the *post mortem* showed no meningitis, but in the intestines the distinctive lesions of enteric fever.

Dr. Nevitt was glad that his incomplete paper had provoked such an animated discussion. He admitted the want of a pathognomonic test, but objected to have recovery put down as a certain sign of the non-tubercular nature of the disease.

The meeting then adjourned.

Book Notices.

School Hygiene, by Chas. J. Lundy, A.M., M.D., Detroit. (Read before *American Health Association*.)

Catalogue, 1884, Oaklawn Stud, Percheron Horses. N. W. Dunham, Proprietor, Wayne, DuPage Co., Ill.

Fifth Biennial Report of the State Board of Health of Maryland, January, 1884. C. W. Chancellor, M.D., Sec.

Fractures of the Neck of the Femur, with Special Reference to Bony Union after Intra-Capsular Fracture, by N. Senn, M.D., Milwaukee, Wis. (Extracted from the *Transactions of the American Surgical Association* Vol. I., 1883.)

The Reciprocal Attitude of the Medical Profession and the Community.

The Anniversary Address before the Medical Society of the State of New York, at the seventy-eighth annual meeting, delivered at Albany, February 6th, 1884, by Alexander Hutehins, A.M., M.D., of Brooklyn, N.Y., President of the Society.

Vick's Floral Guide, 1884. Published by James Vick, Rochester, New York. Price ten cents.

The *Floral Guide*, for 1884, comes to us with its usual elegance. Its pages are profusely adorned with cuts of flowers and vegetables. The gardener will find the *Floral Guide* a reliable ready reference on all matters horticultural. Three attractive coloured plates enhance its value.

The Application of Nitrous Oxide and Air, or Nitrous Oxide and Oxygen, under pressure to produce Anæsthesia in persons for Dental and Surgical Operations, by Dr. E. P. Howland. (Read before the American Association for the Advancement of Science, Minneapolis, Minn., Aug. 20, 1883.)

A resumé of French operations, with Paul Bert's Compressed Air Chamber and Nitrous Oxide.

Hand-book of Eclampsia, or Notes and Cases of Puerperal Convulsions, by E. Michener, M.D., and others. Philadelphia: F. A. Davis, Att'y, 1883.

This little book professes to be a collation of the cases of Puerperal Eclampsia which have occurred during the last eighty years or more around Avondale. From this study the authors conclude that Puerperal Eclampsia has increased in frequency in late years. The causes of this increase are mainly due to the habit of tight dressing, and to the discontinuance of the habit of venesection during the latter months of pregnancy. The proposition is to prevent this increase by again having recourse to

the lancet, and bleeding *ad deliquium*, "with an eye on the countenance, a finger on the pulse, and perhaps an ear on the chest."

The bleeding must be free and copious, when it not only cures the Eclampsia, but prevents its occurrence.

Wiesen as a Health Resort in Early Phthisis With directions for Clothing, Diet, and Exercise in the Swiss Alps during Winter. By A. T. Tucker Wise, M.D., L.R.C.P., M.R.C.S., 1883. London: Baillière, Tindall & Cox, 20 King William St., Strand, W. C.

The scope and purpose of this little book are well set forth in the title. It was written of Davoz Platz on the character and merits of which station the author has also published a *brochure*. It abounds in interesting and useful information, Physiological, Local, Hygienic, Sanitary and Meteorological, which will prove invaluable to those Victims of Phthisis, in its early stages, who contemplate going abroad, and to their medical advisers on whom will devolve the duty and responsibility of directing their footsteps in quest of health.

Personal.

PROFESSOR HUXLEY is to have a Baronetcy. DR. T. E. CASE has removed to Dunganon.

DRS. DOLSEN and CARROLL have returned from England.

DR. McMILLAN, of Alexandria, has been made a Dominion Senator.

DR. BURNS, of Toronto, has taken a holiday trip to the orange groves of Florida.

DR. W. BEAUMONT AIKINS has been appointed surgeon to the House of Providence, Toronto.

DR. DAVID W. YANDELL has been elected an honorary member of the London Medical Society.

DR. MARSDEN has been appointed Commissioner for the Marine Hospital, Quebec, in place of the late Dr. Sewell.

THE REV. PROFESSOR CLARKE, of Trinity College, Toronto, preached a sermon to the medical students in All Saints' Church, on Sunday afternoon, Feb. 3rd.

ELISHA HARRIS, M.D., of Albany, N.Y., died in February at the age of sixty years. He held the secretaryship of the State Board of Health from its organization up till the day of his death.

The following gentlemen were admitted Licentiates of the Royal College of Physicians, London, on January 31st: William Graham, M.B., Toronto; J. B. Loring, M.D., Montreal; S. W. McConochie, M.B., Toronto; E. R. Woods, M.B., Toronto.

Dr. McCAMMON was elected Mayor of Kingston by acclamation. Dr. Stewart of the same place not being satisfied with the election has carried the matter to the Courts to try and find out why there was not a ballot taken. Dr. Stewart was also a candidate for the Mayoralty.

The case of *Lennox v. McCammon* for slander in which judgment was reserved as to the question of privilege, and referred to a higher court. The higher court have rendered a decision in favour of the defendant. We heartily congratulate Dr. McCammon on the successful issue of his defence.

Miscellaneous.

THE COMFORT OF MEDICAL STUDENTS.—Speaking of the Harvard Medical School's new building, the *Medical Times and Gazette* says: "There is a spacious reading-room, a library, a coat-room, lavatories, and—a smoking room. It is indeed a new step on the part of the authorities to recognize that the student is a being with bodily frailties like themselves. Hitherto in most medical schools it appears to have been an article of belief that the student had no appetite or thirst that needed solacing or quenching; that his backbone was of iron, and his ischial tuberosities of adamant; that he could see like a bat, and flourish on carbonic acid like a bay-tree. As to his being so weakly organized as to need an occasional fillip from excisable articles—such as tea, coffee, alcohol, or tobacco—that is a notion to which many authorities still remain blind. There is another side to the question, as one of the speakers at the Boston ceremonial seemed to suspect when he quoted the lines—

'Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay.'

The appetite for comfort grows by what it feeds on, and, when we find our students lolling over their afternoon tea or cigarettes in all the luxury of a club-room, we may look back with regret to the days when theatre benches were hard and polished by long sitting, when the pipe was a surreptitious open-air indulgence, and tea was left to women."—*N. Y. Med. Jnl.*

URINARY CHEMISTRY OF DAYS GONE BY.—"A Woman whose Husband has bruised himself, took his water, and away to the Doctor trots she, the Doctor takes the water and shakes it about, How long hath this party been ill (saith he) Sir, saith the woman, He hath been ill these two daies. This is a man's water, quoth the Doctor presently, this he learned by the word *HE*; then looking on the water he spied blood in it, the man hath a bruise saith he. I indeed saith the woman, my Husband, fell down a pair of stairs backwards, then the Doctor knew well enough that what came first to danger must needs be his back and said, The bruise lay there, the woman, she admired at the Doctor's skill and told him that if he could tell her one thing more she would account him the ablest Physician in Europe; well what was that? How many stairs her husband fel down, this was a hard question, able to puzzle a stronger Brain than Mr. Doctor had, to pumping goes he, and having taken the urinal and given it a shake or two, enquires where about she lived, and knowing well the place, and that the Houses thereabouts were but low built Houses made answer (after another view of the urin for fashion sake) that probably he might fall down seven or eight stairs. Ah, quoth the woman, Now I see you know nothing, my Husband fell down thirty. Thirty! quoth the Doctor, and snatching up the urinal, is here all the water saith he? No saith the woman, I spilt some of it in, look you here quoth Mr. Doctor there were all the other stairs spilt."—*From the English Physitian Enlarged by Nich. Culpeper, 1655.*—*N. C. Med. Jnl.*

A FACETIOUS old dame who had reached her four-score and ten, died. On opening her last will and testament it was found that she had bequeathed to her physician, "to whose enlightened care and wise prescriptions," she owed her long life, "all that is contained in an old oak chest in her boudoir, the key to which could be found under the mattress of her bed." Fancy the feelings of the said enlightened and wise physician when he discovered, instead of the expected fortune, all the drugs and potions, still intact, which he had prescribed for the old lady (peace to her ashes!) for many years back.

THE man who "threw up his hand" must have been very sick: what a 'retch!