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Original Communications.

ON THE SPECIFIC ACTION OF LARGE DOSES OF LIME-JUICE, IN THE TREATMENT OF ACUTE, SUB-ACUTE AND CHRONIC RHEUMATISM.

BY A. H. CHANDLER, M.D., DORCHESTER, N. B.

The recently reported cases of rheumatism, failures, as well as successes, with salicin, and salicylic acid, have induced me to bring to the notice of the profession the high value of large doses of lime or lemon juice, in all stages and types of that affection. From among the various methods of treatment advocated from time to time—acid, or alkaline; mint water, or expectant; opiate or salicylic—each of which, with the exception of the latter, now on its trial, have in turn been taken up and abandoned—the young practitioner must often be sorely puzzled in his choice of a remedy, when called upon to make a selection.

In advocating the lime or lemon juice treatment, the author cannot of course, presume to suggest anything novel; but, he does venture on claiming originality, with regard to the *largeness* and *frequency* of the dose, and hesitates not to offer it, when so given, as a veritable specific in this not seldom treacherous, and intractable malady. Without regard to the condition of the bowels, unless previously much constipated, I usually begin with at least ten ounces of lime juice, increasing rapidly up to eighteen or twenty-four, in the 24 hours—from half an ounce to an ounce, or more every hour, with not less than double or treble the quantity of cold soft water—usually diluted and sweetened, however, to the patient's taste. Very often on the second day, the amendment is decided, and the disease, in acute cases more particularly, sthenic or asthenic, generally subsides on the fourth or fifth day of treatment. One grain of opium is usually given, with

or without lead, and tannin, night and morning, in order to restrain the bowels, which the juice has a tendency to relax. The first effect of such heavy doses is the rapid diminution of joint swelling, and diminished perspiration, together with steady falling of pulse, the latter often quite slow with a slight tendency to syncope, the majority of the cases requiring quinine, and supporting food about the sixth or seventh day, when convalescence advances rapidly. The following is a case of active sthenic type, occurring in a robust healthy woman.

CASE I.—Mrs. J. C., æt. 40. On arrival at 8 a.m. July 13th, found the patient very hot and restless; anxious countenance; suffused, swollen face; conjunctivæ deeply injected, smarting, and accompanied with epiphora. Pulse full, bounding, and about 100. Almost every joint much swollen; knees, elbows, and wrists, intensely so. Not able to turn, or lift up in bed; pains very acute. Had chills and rigors for a day or two previous to visit; sweating profusely. To have ℥iij. of lime juice every hour, night and day.

July 14th.—Patient generally improved; less anxious and restless; pulse 80; face no longer swollen, and red; lachrymation ceasing. Able to move and turn. Joint pain and swelling much less. Increased lime juice to about 14 ounces daily. July 15th.—Still improving; slight nausea; discontinued lime juice, and ordered weak lemonade made from fresh lemons. July 16th.—Patient pale and quiet; all pain and swelling subsided; pulse slow; feels pretty weak; to stop lemonade; diet, strong beef tea, eggs and milk; to have quinine every two hours, night and day. July 17th.—Still improving in every way; to continue quinine, etc. July 20th.—Convalescing rapidly; appetite good, and tongue clean; to sit up to-morrow.

CASE II.—February 28th.—R. B., æt. 30. Had been taking medicine from another physician; some days ill; fever still pretty high; tongue much furred. Wrists and knee-joints greatly swollen, and suffering from flying pains in different parts of the body. Ordered 16 ozs. of lime juice daily. March 2nd.—A great deal easier. Still suffering more or less from shooting pains; but fever, swelling, and sweating subsided. March 3rd.—Discontinued lime juice, and placed him under colchicum, belladonna and carbonate of iron; beef tea, eggs and milk. March 7th.—Convalescing rapidly, and gaining strength. To go out every day. Neuralgic pain,

almost entirely disappeared. To continue pills of iron and belladonna twice daily.

CASE III.—May 6th.—Thomas W., æt. 19. Has been ill for the past week; fever not very high, but joints greatly swollen, weak; confined to bed; perspiring profusely; tongue coated. Ordered lime juice, 16 ozs. daily. May 8th.—Not much improved. Increased the juice to 32 ozs. daily, as he bears it well and likes it. To have an opium pill every night. May 12th.—Swelling subsiding rapidly, but not entirely gone. Tongue cleaner; suffers still from a little pain. Night sweats diminishing. May 14th.—Improving rapidly. To continue lime juice, but only as a weak lemonade; prescribed quinine. In the above case, the attack was sub-acute, but of a decidedly asthenic type, and I was in great doubt as to the benefit to be derived from the lime juice in large doses; however, by pressing its use, and carrying it up to two pints daily, all the symptoms rapidly vanished. Diet throughout consisted of beef tea, eggs and milk.

CASE IV.—John N., æt. 22. February 12th.—Acute rheumatism. Full pulse; high fever; joint swelling and constant profuse perspiration. Ordered lime juice 20 ozs. daily. In this case there was no particular feature of importance, beyond the fact of the rapidity of the action of the lime juice. The disease was entirely aborted, so to speak, in three days. The following are the notes of his condition on the fourth day. February 16th.—Pulse 82; tongue cleaning; sweating slightly; no thirst or pain, but weak. Placed under quinine in full doses. This patient convalesced rapidly.

The above cases extending over a period of five or six years, are taken at random, from my note book. These along with others, *acute, sub-acute* and *chronic* have yielded rapidly to large doses of lime juice. I have had no failures with it employed in this way; and offer these excerpts for the consideration of my medical brethren, with the fullest assurance and confidence that they will find in the juice—thus largely given—a veritable specific for rheumatic seizures.

I should like to close this paper with a full account of a most interesting case of chronic rheumatism, in a young man of thirty, but have, unfortunately, mislaid the notes of it. Suffice it to say, however, he had been for three years a martyr to intense suffering, laboring from time to time under acute attacks. I found him confined to his couch,—

a cripple and confirmed invalid. Lime juice and fresh lemons were given freely for upwards of five weeks, with a slow, but sure and steady improvement. Being much debilitated from the first, porter and quinine were given largely throughout the treatment of his case. When last seen several months subsequent to leaving my hands, he had suffered no relapses; was very hearty and robust in appearance, and in every way an altered man. He had quite recovered from his lameness, no stiffness of joints remaining, ~~savo~~ two or three fingers of one hand, the latter due to a little permanent flexor contraction and thickening.

Since writing the above, I add the following notes of a somewhat interesting case just convalescing:—G. D., æt. 36; married. Had an attack of diphtheria three weeks since, from which he rapidly recovered under stimulants, followed, Sept. 10th, by a severe seizure of erysipelas of the left foot. For the latter he was given large doses of tincture of iron, egg mixture, beef-tea and quinine freely.

On the morning of Sept. 17th he was attacked with sharp pain, followed by distress and soreness in the region of the heart, for which—deeming the symptoms as merely neuralgic in character—he was given a full dose of belladonna and opium combined.

Sept. 18th.—No better. Precordial distress on the increase, with decided fever, full pulse, and rheumatic swelling in knee and shoulder joints, both sides; tongue deeply furred, and perspiring profusely at night. He was placed at once under lime-juice, 16 ozs. daily. Diet—as system has been weakened by recent illnesses—beef-tea, eggs and milk and two ounces of brandy daily.

Sept. 19th.—Heart feels easier and throbs less, but no amelioration of joint symptoms; pulse weak and very quick.

Sept. 20th.—Swelling of wrists and insteps, involving also the smaller joints—fingers and toes; both hands, too, on dorsal aspect, very puffy, swollen and red. Patient looks anxious and restless; constant thirst. Doubled the dose of lime-juice to 2 pints daily, by measurement.

Sept. 21st.—More placid; pulse 100; slept well between every dose of the medicine the first time for the past three nights; swelling of all the joints subsiding; night sweats and thirst declining. To continue the juice, 32 ounces daily. An opium and tannin pill night and morning, as the bowels

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were slightly relaxed. To continue beef-tea, egg-mixture and stimulants.

Sept. 22nd.—Reduced the lime-juice, as he is much improved, to 16 ounces daily. Patient a little weaker, but otherwise improved; pulse 100.

Sept. 23rd.—Stopped the lime-juice; pulse 104, weak and compressible. Sweats still a good deal at night, but attributed to general nervous debility; placed under quinine, in $1\frac{1}{2}$ gr. doses every two hours night and day.

Sept. 25th.—Convalescing; able to get out of bed into an easy chair without assistance; tongue cleaning rapidly; heart sounds normal.

The above case presents some points of considerable interest, and shows what supporting treatment will do in maintaining the system under trying circumstances. Three sharp attacks of as many ailments, occurring within a period of five weeks, is sufficient to tax the powers of any nervous system. It will be observed the pulse ran high all through his last affliction. This may doubtless be attributed in part to the disease having spent considerable of its force on the heart, to the general debility of the patient from causes already referred to, and to his naturally high pulse—about 90 being its healthy standard. The very large doses of the "juice," too, requisite in conquering the attack, is also interesting. Without it the heart would, in all probability, have fared badly.

In conclusion, let me enjoin the absolute necessity of using only pure juice, and, when there is any doubt—of obtaining *fresh lemons*. The latter must, of course, be given in abundance, sufficient to furnish the equivalent of not less than 12 ounces of lime-juice daily.

CANCER OF THE STOMACH.

BY G. B. MOTT, M.D., PETROLIA, ONT.

J. C. H., æt. 65, called at my office on the 27th of May, 1876. He complained of difficulty in swallowing, with pain and tenderness over the region of the stomach and a constant desire to eructate; but owing to a supposed stricture, eructation was impossible. He had been treated for dyspepsia and a variety of stomach diseases, but with slight temporary relief. Upon enquiry, I learned that he had experienced more or less pain in the neighbourhood of the stomach for the last five years, and had

suffered from habitual costiveness nearly all his life. He was born in Vermont, U. S., and when quite young, emigrated with his parents, to Canada, where he remained up to the time of his death. Family history good, having no trace of scrofula; father died æt. 65 from pneumonia; mother at 95, from apoplexy; habits strictly temperate; has been engaged in the oil business for the last twelve years in Petrolia. From a thorough physical examination and the history of his case, I diagnosed cancer of the stomach, which was received with astonishment and doubt by my patient.

I applied tincture of belladonna over the stomach once a day and ordered him lime water and milk; beef tea and oyster soup to be taken frequently and in small quantities, which was continued up to the 12th of June, after which I lost track of him until the 1st of October, when I was sent for to visit him at his residence. I learned that he had been under Homeopathic treatment during the interval, with slight occasional temporary relief. His condition was much worse, all the previous symptoms being aggravated, with œdema of the lower extremities. He urged me to do something for him. I refused to attend him without consultation, in which my patient acquiesced, and Dr. Edwards, of Strathroy, was sent for. He fully coincided with my diagnosis, and the following treatment was agreed upon:

R—Bismuthi Subnit., grs. viij.
 Pulv. Ipecac., gr. j.
 Sodæ Bicarb., grs. xvj.
 Div. in chart., No. viij.

SIG.—One to be taken every three hours.

R—Strychninæ, gr. j.
 Aq. Pur., ʒvj.—M.
 SIG.—A teaspoonful three times a day.

Counter-irritation was ordered over the stomach with belladonna, iodine and mustard, as required to allay irritation of that organ. Under this treatment some improvement took place in his symptoms, which, however, was of short duration. He remained in about the same state up to the 20th of November, when he was seized with paralysis from which he partially recovered, death taking place on the 30th. I might here state that the stricture, of which he complained so much, gave way about three days before he was taken with paralysis, which enabled him to swallow without any difficulty.

Autopsy, twelve hours after death in presence of Drs. Edwards, Henderson and Stevenson of Strath-

roy, Lougheed of Petrolia, and a few friends of deceased. An incision was made from the top of the sternum to the pubis, through the integument; the sternum was separated from the costal cartilages and removed, exposing the lungs, the upper lobes of which were found to be adherent to the walls of the chest, but otherwise healthy with the exception of pigmentary deposit. Heart, pericardium and spleen healthy; several large deposits of melanotic cancer in the liver and kidneys. The cardiac orifice and lesser curvature of the stomach were involved. The pancreas appeared to have been the starting point of the disease as that organ was a complete mass of adhesion. An incision was made into the stomach, and a large clot of blood, the size of a man's closed hand, was discovered. The difficulty in swallowing complained of so much by the patient was caused by a cancerous tumor in the cesophageal opening of the stomach, which had dropped downward by reason of its weight, and no doubt was the cause of the relief in swallowing which took place two weeks prior to death. It was thought unnecessary to examine the brain, as the cause of death was quite evident from the examination just made.

The above case is not only a very interesting, but also an instructive one, especially as the more prominent symptoms of true cancer, as given by the best authors, were absent, such as vomiting and the passing of blood and matter with the stools. The patient informed me that he never was sick at his stomach, much less to vomit. Most authors regard vomiting as a pathognomonic symptom of cancer of the stomach.

HERNIA—THE AUTHORS WHO WROTE ON IT—AND ITS TREATMENT PRIOR TO THE 18TH CENTURY.

BY J. R. ALEXANDER, M.D., MONTREAL

In the limits of the present article it will be impossible to enter very fully into all the authors' views, or even to give all their names, neither will I take the space necessary to mention the works from which most of it has been taken, but will, as briefly as possible give the principal means adopted with a view to cure hernia, reserving for another time some minor considerations.

The first allusion to hernia, although not definitely mentioned, is to be found in Leviticus

(xxi. chap.) 17, 18, 19, 20th verses, where the command is given: "Speak unto Aaron, saying, whosoever he be of thy seed in their generation, that hath any blemish, let him not approach to offer the bread of his God," and then the blemishes are enumerated, and I believe that hernia is one of them. Between the time of Pythagoras and the Peloponnesian war, philosophy and physic made such rapid progress that it was deemed necessary to divide them. But it is to Hippocrates that must be given the honor of the division of Physic into Medicine and Surgery, each branch having much more than any man can possibly master in the longest and most studious lifetime, and if this natural division had been followed, and even subdivided, how much better it would have been for all interested? He was the first who gave anything like a correct account of the diseases of his age, and he was the first who described hernia; and although not technically accurate as we understand it, no doubt it was substantially correct for the age in which he lived. It was less frequent in that age than at present, with our artificial and hot-bed diseased society.

Following Hippocrates we have hernia described by Meges, Georgias, Heron, and Sofratus, but by none of these is given any definite treatment for this affection. During the reign of the Emperors Augustus and Tiberius, Celsus described most accurately, hernia of the groin and scrotum. He gives the manner of operating in his time in hernia. The surgeon opened the scrotum, took hold of the sac, and after he had returned the intestine, cut it off; then he tied the spermatic cord and removed the testicle. He cut out part of the scrotum and re-united the lips, to form a solid cicatrix that would prevent the falling down of the parts. In the time of Antoninus, Galen and some of his successors described these diseases more accurately than was done before. Oribasius, Ætius, but more particularly Paulus Æginetus, who lived in the seventh century of the Christian era, omitted nothing which pertained to the method of treating hernia in his time, which varied somewhat from that practised by Celsus, because Constantine, the first Christian Emperor, who no doubt saw its evil effects in his empire, enforced a law against the treatment by the removal of the testicle. The only change introduced by Paulus Æginetus in the Celsus operation, was the tying of

the sac and cutting it off below the ligature. Up to the latter part of the seventeenth century, the principal writers (not already referred to) were Albucasis, Roger de Parma, Guy de Chauliac, Lafranc, Franco, Benedictus, Pare, the Fabricii, Brechet, Bartholinus, Fallopius, Albenus, Vesalius, Berault, Scultetus, &c., &c. Albucasis gives another method of operating, or rather torturing, in which the testicle is not treated with any more regard. He applied the actual cautery to the opening through which the intestine protruded, and let it penetrate to the bone, so that the bone and the scrotum may be united closely together. Roger de Parma did not spare the testicle either; he took a large needle, threaded with twisted thread, and passed it through the thickest part of the scrotum below the spermatic vessels, he then placed some hard substance on the top of the scrotum and tightened the thread every day. Many favoured this mode of treatment. Lafranc, apparently wishing to be more cruel than others, if possible, applied a large pair of pincers, with slits in them, through which he ran a red hot sharp knife to cauterize the os pubis. Guy de Chauliac made use of caustic to burn the ring and sac, and pretended not to injure the spermatic cord. Berault used gold wire; first the rupture was reduced, and the sac opened; he then passed a gold wire through it near the ring four times, then twisted the ends tightly together, and carefully dressed the wound. Franco and many others operated in the same way, but made use of common wire, and even lead.

The removal of the testicle for the cure of hernia became quite common, especially in children, so that in Holland a law was passed against it, and in the beginning of the eighteenth century a law was passed against it in France, one woman alone having castrated five hundred children. The Prince of Moldavia, in his history of the Ottoman Empire, says that the inhabitants of Albania and Epirus excel in the cure of hernia, and he then describes the process which he observed as follows: "As to the cure of hernia, they undertake it upon all sorts of people, and of all ages. Their method is very coarse, but yet successful. When I was at Constantinople I had the operation performed upon my secretary who was an elderly man, in my own palace. Having agreed as to the expense, they tied the patient down to a board, and secured him firmly from his chest down to

his feet with strong bandages; then the operator made an incision in the lower part of the abdomen with a sharp knife. The peritoneum being opened, he pulled out about the bulk of a hand of the internal substance under the skin, then drew up the intestine, which was in the scrotum, into its proper place. Afterwards he sewed up the peritoneum with very strong thread, which had a knot at the end to prevent it from slipping; and then the lips which hung over were cut off with the same instrument. The wound was rubbed with hog's fat and cauterized with a red-hot iron. Before the dressing was applied they lifted up the legs of the patient, who was nearly dead, and poured the white of nine new-laid eggs into the wound; and if that liquor fermented and bubbled within the space of an hour or two, it was a certain sign of cure. On the contrary, if there was no appearance of that kind in three hours, they considered it unfavorable and promised nothing. They always attributed ill-success to the age or weakness of the patient, for they have no doubts of the efficacy of their method; and indeed there seldom die two out of one hundred of those whom they undertake. After two or three days they repeat the use of the white of eggs; and all this time the patient is kept extended upon the back, without giving any signs of life, or having very much sensibility. The operators did not suffer him to take any thing; but thought it sufficient to moisten the tongue from time to time with a little water. The fourth day they took him out of bed, still secured to the board, when he came to himself, and with a feeble voice complained of his pains. They gave him three or four spoonfuls of warm water to quiet him, and the three following days, broths were given to him sparingly, but he was not allowed to touch solid food. On the seventh day he was untied and put to bed, but was watched to prevent his turning on his side or stirring his legs. Every day the application of the white of eggs was renewed, but from the ninth to the twelfth day, only six were applied, and as soon as they were poured on the wound they fermented more than they ever did before. The white of a single egg could scarcely be admitted on the fifteenth day, but it was continued whilst any would enter, and there was the least appearance of fermentation. As soon as fermentation was over, the wound was covered with a plaster made of pitch and oil, then

the patient was allowed to stir his feet and to lie on his side. Every morning the thread was pulled to see if the ligature could be removed, which depended on the strength of the patient. Some were cured in twenty, others thirty, and others forty days; it was considered a cure when the thread was removed and a second plaster applied to complete the healing." He then says, "Here we see a surprising operation, of which I was an eye witness, and which is practised with success, by a savage people, ignorant of science."

That which will strike the careful observer most forcibly in the foregoing will be the great barbarity in the means employed by all, which had in view the same end, viz., the closing up of the opening through which the parts protruded, and at the same time he must have been led to think that if as much time and talent had been spent to devise some mechanical means of support, having in view the end desired—a radical cure, as was wasted to contrive means of torture, there would have existed at the beginning of the eighteenth century something worthy of the name of truss or support. Is it not astonishing that there was no definite mode of treatment? That there was not is an undisputed fact, but if we wonder that there was no established principles for the treatment of hernia, the most frequent disease to which the human family was subject, at the end of the seventeenth century, should we not be overwhelmed with astonishment when we consider the fact, that now, near the close of the nineteenth century, there are yet no fixed rules for the treatment and cure of hernia. I am not now speaking of operations, or of strangulated hernia, or old cases of twenty or thirty years' standing, which should have been cured long ago, where the muscles and tendons are all relaxed and wasted away by the pressure of bad fitting trusses, and when the opening has become very large, but I am speaking of those who are recently ruptured, and who go to the surgeon for treatment. They will be told, "Oh, it is nothing, just go and get a truss and wear it; but you need never expect to be cured." There is no doubt that many cases of hernia can be cured, and that with comparative ease and certainty, by a proper mechanical contrivance; and hence the greatest possible care should be taken in the selection of a suitable truss.

ON STRABISMUS AND ITS OPERATION.

BY ADOLF ALT, M.D., TORONTO.

Late Resident and Assistant Surgeon and Lecturer of Normal and Pathological Histology of the Eye and Ear to the N. Y. Ophthalmic and Aural Institute.

Strabismus, especially convergent (hyperopic) strabismus, seems to be a comparatively frequent disease in this country, and neither the necessity nor the feasibility of its operation seem to be rightly appreciated. In countries where every student of medicine is forced to study ophthalmology, as well as all the other branches of medical science, (as in Germany and France,) and where ophthalmic surgery is an often chosen specialty, the frequency of strabismus has been greatly reduced, since every practitioner is aware of its serious consequences, and knows that its cure is comparatively easily accomplished. This is an important fact, as it lies mostly in the hands of the family physician, whether parents consent to have their children operated upon or not, and only the lack of familiarity with the subject can excuse the advice so often given "that it is not necessary to operate"; "that the child will outgrow it," etc. That a conscientious physician will not act so, if he knows better, is plain and it therefore may be of interest to bring some of the leading points on this frequent disease, before the general practitioner.

There are two kinds of squinting which may be distinguished, paralytic and muscular strabismus. The former is the rarer form. It is distinguished by double images, and caused by paresis or paralysis of one or more of the six muscles of the eyeball. In the latter—the muscular strabismus—the two opposite muscles do not act with equal force, and therefore the stronger one pulls the eye towards that side. This is caused by the relaxation of one muscle, and hyper-retraction of its opponent, or an abnormal insertion of one of them upon the sclerotic, either too far forward or too far backward. In cases of muscular strabismus the motility towards the side of the weak muscle (or the one inserted farther backward), is only restricted, not totally wanting, as is most the case in paralytic strabismus, and is abnormal large towards the opposite side. The patient may squint with one eye only—this is the most

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frequent kind—or alternately with both eyes. Though generally the squinting eye has previously been the weaker one, it loses its usefulness almost entirely if the patient is not cured of his strabismus. Like any organ, the services of which we do not require, it gradually becomes weaker; the squinting eye, which is not used, becomes more and more amblyopic, and, as a general rule, the longer the patient squinted, the more amblyopic it is. Patients suffering from alternating strabismus have thus an advantage over those with unilateral strabismus; they use both eyes.

Happily we are able to cure strabismus. In former times this was aimed at by forcing the patient to use the squinting eye. For this purpose the sound eye was bandaged, or the patient was ordered to wear glasses which partly shaded the sound eye and prevented the patient from looking in a certain direction. Others used stenopaic apparatus. It is not my intention to criticize these methods, but would simply state that all of them are tedious and unreliable, the more so, since squinting commonly begins too early, and is manifest before the patient can wear glasses. If the strabismus appears in a person old enough to wear glasses, a cure may sometimes be attained in that way. It has been found that convergent strabismus is usually combined with a hyperopic, and divergent strabismus with a myopic condition of the eyes, and the respective glasses have been used with a view of curing this disorder. They do so, but only in the beginning. The only reliable way to cure strabismus is by operation.

There are two operations for strabismus: the simple tenotomy, and the tenotomy of one, and advancement of the opposite muscle. The simple tenotomy of the stronger, retracted muscle, is a comparatively slight operation, and especially since we perform it sub-conjunctivally, being borne, as a rule, almost without any reaction.

The purpose of severing the muscle from its insertion upon the sclerotic, is to force it to attach itself further back. If immediately after the operation has been performed, we have not gained the desired effect, we may improve it by stitching the eyeball to the opposite corner. To judge of the effect we must keep in mind that immediately after the operation the patient should be able to move the margin of the cornea with the severed muscle respectively, to the caruncle, or to the outer com-

missure according to the kind of strabismus which has been operated upon. If he can move the eye farther, we have not gained all that is necessary; if he cannot move it so far, we have done too much and must reduce the effect by a suture, or the patient will later on, squint towards the opposite side. This danger of converting for instance a convergent strabismus into a divergent one, is the reason why a conscientious operator never should operate on both eyes at one sitting. If we have not accomplished all we want by the operation on one eye, we may after some weeks correct the other one. Tenotomy is not generally so efficient in divergent, as in convergent squint. Where the simple tenotomy is not effective enough, we must resort to the advancement of the opposite muscle. The idea of this operation need not be explained.

The same that has been said concerning convergent and divergent strabismus, is the rule for the much rarer forms of upward and downward strabismus. Cases, where the strabismus is caused by some other defect of the eye like leucoma cataract, apakia, etc., have to be exempted from the foregoing remarks.

The operation for strabismus is so simple, that alone from an esthetic point of view, patients should undergo it, even if they would not gain more. Yet they can gain considerably more, and the more, the earlier the operation is performed. They may retain good, or comparatively good, vision, in an eye which without the operation, will get more and more useless, often so much so, that if the other eye later on is lost by accident, the patient is not much better than blind.

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—I noticed in the LANCET of last month that my respected friend, Dr. Hingston, of Montreal, was the first to perform the operation of hysterotomy in Canada. Possibly this is correct as far as known; but in 1865 I performed it, assisted by Dr. Turquand, of Woodstock, and Dr. Chrysler, of Burford. At a future time I will write a history of the case, but in the meantime I desire to put the operations in chronological order.

I am, yours truly,

DANIEL CLARK,

Med. Supt. Toronto Lunatic Asylum.

Oct. 19, '77.

THE TYRANNY OF A FALSE SENTIMENT.

To the Editor of the CANADA LANCET.

SIR,—The interdiction is not to be found, at least not directly and plainly, in our code of ethics, but some how that code is understood to erect numerous barriers between the public and members of the profession—I refer to the relations of common citizenship. To a certain extent that is right and proper, inasmuch as it tends to keep men more or less unscrupulous as to the use of means, from bringing themselves into public notice. No one having regard for the dignity of the profession will deny that safe-guards are necessary, of a more or less stringent character, the transgression of which will bring swift and certain odium upon the transgressor.

While fully and freely conceding all this, within reasonable bounds, and I suppose no one claims more, yet for a long time I have been of the belief that the very existence of such safe-guards—as understood and interpreted—that the knowledge that their private and public acts are watched with an argus eye, and a jealous suspicion, has, in a very large measure, served to curtail the usefulness of medical men as members of the community in which they live. They feel themselves surrounded by barriers—they feel cramped, burdened, and not at liberty like other men to act naturally. If it can be shown that this is the position occupied by medical men, and I think it can, it must be confessed it is a humiliating one.

The code of ethics prohibits all newspaper cards, but it says nothing against a medical man writing a series of letters to a newspaper on topics immediately or remotely identified with medical science, yet by tacit understanding, such an act, however much in the public interest, is regarded as unprofessional. Many gentlemen in our ranks could edit a department in the local paper greatly to the profit of the community, but the censors say no; such conduct is simply a bid for public favor, they allege, and if the crime is persisted in, the medical press, and the county society, will hurl their maledictions at the offender's devoted head, and for ever after brand him as an outcast. Or it may be, that after many misgivings, and much fear and trembling, an able member has ventured to come out of the shell of which he is an unwilling occupant, for the purpose of addressing his fellows

upon some subject which he conceives to be of vital public importance, owing to its relation to health and life. Forthwith he is accused of advertising his wares, and adjudged guilty of the whole law. Some jealous, stupid fellow who is trying to get a part of his practice perhaps, sends his complaint to the *Lancet*, or formulates charges at the ensuing meeting of the local society, and generally, such a storm is raised, that the able and disinterested member resolves never again to appear on a public platform. These things do not very often occur *in the letter*, but *in spirit* they are daily and hourly occurring. Men who could instruct and edify the public, refrain from using their talents for fear of arousing jealousy and ill-feeling amongst their local brethren, and calling forth the anathemas of the medical press and the societies.

Let me give an illustration of the evil spirit which pervades the profession in this regard, especially in country places. A few years ago two medical men resided in one of our villages. The first to locate there fancied, he had a proprietary right to the whole field, as is usual, and was determined to keep at bay all intruders on his vested rights. He did not, however, up to the time to which I am going to refer, refuse to interchange with the new comer, a cold, "How do you do." He was no speaker, while the new man could make a few passable remarks in public. Some public gathering was about to take place, the nature of which seemed to render it probable that both these gentlemen would be called to their feet. In the meantime the doctors chanced to meet, and it was alleged, that resident number one, extorted from number two a promise not to speak. The gathering came off, but after all, for some reason, number two made a short speech. There never had been much cordiality, but on that day war was proclaimed to the bitter end, which has probably continued to the present time. Just fancy two sensible men in any other sphere of life displaying jealousy and vindictiveness under similar circumstances! Why cannot medical men live as harmoniously as the lawyers? Is it not a fact that our jealousies and *crotchets* are standing jokes amongst members of other professions?

Here we have powerful elements at work to dwarf and snuff out the intellectual forces of the profession, instead of giving them free play and encouragement. I believe there is as much, if not

more, genuine talent in the medical profession as can be found any where, but it is hid under a bushel; nay, buried away far out of sight. So much is this the case, that medical men will not even come out in defence of true medical science when it is assailed by lying and ignorant men. No: neither by lecture nor pamphlet will they go to their own defence. The legitimate fruit, under favourable circumstances, is the unopposed spread of empiricism; more especially do we see this in the United States, where, as a rule, there are no repressive laws.

In all this there is something wrong—something calling for a remedy. Medical men of known ability should be encouraged to come out, and let the public have the benefit of what they know of matters of general importance and interest. Why should the doctor, any more than the clergyman or lawyer, be looked upon with jaundiced eyes, or as advertising his wares should he see fit and proper to deliver a public lecture, for example, on the popular and important subject of pure air in relation to health? Or, why is not a doctor equally at liberty with other men to write for the papers and manfully assume the responsibility of what he writes by appending his name? There is no great reason that I can discover, and it is about time the profession were relieved of this mean, dwarfing and annoying tyranny.

Mark, I am not contending for the liberty of writing up diseases and calling attention to modes of treatment, or anything of that kind. That would be charlatanism in one of its worst forms. What I claim is, our code of ethics, good enough as it may be in itself, should be so interpreted by the medical press and the profession as to give rise to a manly and healthy sentiment in regard to the matters of complaint, that members of the profession may go out amongst their fellow men as free from restraint as educated gentlemen in other professions. That is all.

Much of the difficulty, of course, arises from petty jealousies, unworthy of men occupying the position of members of an honorable and learned profession, but the evils complained of are rendered still more burdensome and harassing by a spirit of illiberality pervading the profession, having its root in false notions in regard to "professional dignity!" To illustrate: The secular press teems with reports of sermons by eminent

divines, and speeches by great lawyers. Such reports are often accompanied by eulogiums upon the eloquence and ability displayed. With all this, no one finds fault—not even medical men. It is admitted that it is all right and proper, and not in the least degree derogatory to the dignity of either profession. Both the divine and the lawyer, let it be observed, are spoken of as acting within the limits of their respective callings. Now let Dr. Somebody be called to a case of injury by accident, or let him perform a brilliant operation and save a valuable life, and let the matter be reported in the press, and behold what a change of sentiment! It is all right for the minister or lawyer, but for the press to treat a medical man in that way is simply outrageous, and the poor editor must be soundly rated for allowing such matters to find a place in his columns. Great lawyers believe in publishing their business cards, but doctors are forbidden to do so because, forsooth, such a practice is "derogatory to the dignity of the profession." The fact that this prohibition is practically ignored by hundreds of our best men is the best proof of its absurdity. Let it not be understood that I am advocating a general system of advertising—not by any means; but I contend that we have no right to become censors of the press, nor in any way interfere with the rights of editors so long as our own rights are not infringed upon. Moreover, I claim for medical men the same immunity from censure and *suspicion* that is enjoyed by members of the other learned professions. I believe the practical adoption of these views would greatly tend to promote the growth of manly independence, the development of talent, and the general usefulness of medical men in the communities in which they live.

The importance of the subject is my only excuse for the undue length of this communication. Your own views, Mr. Editor, on some of the points raised, I am convinced would prove of general interest to the profession.

ANTI-HUMBUG.

October 10th, 1877.

CRIMINAL DISSECTION.—The House Surgeon of the Glasgow Maternity Hospital was arrested for violating the Anatomy Act, in dissecting the dead body of an infant against the expressed wish of its mother.

tic; in the other that pregnancy brought on violent attacks of spasmodic asthma. Of course I explained that the child had rights as well as the mother, but it was all that I could do to prevent one of these cases from going to a professed abortionist. In some cases of this kind prevention is better than cure, and I am inclined to think, from some experiments, that vaseline, charged with four to five grains of salicylic acid, will destroy spermatozoa, without injury to the uterus or vagina.

In conclusion, there are a number of uses for vaseline in the lying-in-room and nursery. I make no claim to its being "a cure-all," but it is a great convenience, and its "rôle" is extensive. The ointment makes a good dressing for the umbilical cord. Vaseline answers better than oil or soap to remove the cerumen from the newly-born infant. Mixed with an equal weight of honey and ten grs. of borax or of chlorate of potassa to the ounce, it answers an excellent purpose in case of thrush. The ointment alone, or mixed with ten grs. of quinine to the ounce quickly removes the small worms that frequently infest the anus of young children. In the excoriations of infants it effects rapid healing. In the not uncommon sore eyes of the first few days of life the vaseline alone introduced within the eyelids, effects a cure in a day or two. Again, in the "snuffles" of the old women, which, by preventing nursing, frequently seriously effect the health of the infant, it, when introduced into the nostrils with a camel's-hair pencil, answers better than anything I have as yet tried, especially if the head is kept warm with a flannel cap. There are many other uses for vaseline, alone or combined with varying proportions of salicylic acid, that the experience of the physician will readily suggest to him in this connection. There yet remains to be considered some of the uses of these agents in other departments of medicine, which in a future number of this journal, I will briefly refer to.—*Dr. Dubois, Med. Record.*

CLINIC BY PROF. LOOMIS, NEW YORK.

CIRRHOISIS OF THE LIVER.

The history of the case is as follows: The patient is 35 years of age, a well-built and powerful man, and complains simply of an uneasy sensation and a sense of fulness in the region of the stomach. He has vomited occasionally, but has never vomited blood, nor has he passed blood by the bowels. He has been addicted to the use of alcoholic drinks for several years; gets drunk occasionally, and takes his liquor "straight." As the abdomen is exposed you will notice while the man is in the standing position that there is a swelling in the region of the stomach. When the patient lies down,

however, this distention entirely disappears. No tumor can be felt, there is no dulness upon percussion, but on the contrary there is marked tympanitic resonance over the region of the stomach as well as over the entire abdomen. Percussion over the region of the liver reveals the fact that the arc of normal hepatic dulness is very much diminished.

Comments.—The fact that this man has been a drinker of alcohol for a long time, that he has gaseous distention of the stomach and bowels, and that there is marked diminution in the size of the liver, leads us to the conclusion that he has cirrhosis of the liver, and that the symptoms of which he complains are dependent upon gastric catarrh. Such a distention of the stomach and intestines is perhaps the earliest symptoms of cirrhosis of the liver; it appears before vomiting of blood, hemorrhage from the bowels, before any noticeable change in the size of the organ; indeed, before any of the usual symptoms of that affection.

Treatment.—The only thing to be done, as far as the liver is concerned, in the way of treatment, is to stop taking alcohol. For the gastric catarrh, after stopping the use of alcohol, it is important to regulate the diet, being careful that only so much food is taken as can be retained, and of such kind as will be least liable to offend the stomach. Such a regulation of diet must be rigidly adhered to if the gastric catarrh is to be controlled. If the patient is willing to submit to the rigid rules required with reference to diet and abstaining from the use of alcohol, improvement may be expected.

As soon as food can be received without being rejected, there is nothing which is so effectual in correcting this gaseous distention of the stomach and intestines as nux vomica. A prescription which I very commonly employ in these cases of rum stomach consists of equal parts of the compound tincture of gentian and columbo, with from five to fifteen drops of the tincture of nux vomica in each dose, and taken before meals. An occasional aloetic and mercurial purge will also be beneficial.

VALVULAR LESION OF THE HEART.

The case before us has the following history: The man is thirty years of age, and says that he comes here because he has disease of the heart. When asked why he thinks he has disease of the heart, he replies by saying: "Because he feels a pulsation in the region of the heart;" in other words, he had been conscious of having had a heart during the last twelve years. Twelve years ago, or a little more, he had his first attack of acute articular rheumatism, and was sick in bed three or four months. He has had seven or eight attacks since, and each one has lasted for some time, one continuing for over six months before there was any marked improvement.

The first thing that attracted the patient's at-

tention towards his heart was the palpitation, or "pulsation," and it became so annoying that it interfered with his work. When he turned around quickly a "kind of dizziness" came over him. He has been steadily growing worse with reference to these symptoms, but more particularly during the last two years. Of late there has been increased disturbance of the action of the heart, and he has suffered from vertigo more than usual. He knows of no special reason why his symptoms should have increased particularly during the last two years, unless it was due to the fact of his having had an attack of rheumatism about two years ago. Within this time, however, he has had "chills and fever," and, while sick, his heart troubled him very much, and has continued to trouble him more than before since that attack, especially on going upstairs. He has had swelling of both feet, the œdema, however, extending no higher than the ankles. He has not had any disturbance of the stomach; no disturbance of vision, except transient and in connection with the vertigo; and has never had cough and expectoration. His pulse is regular, and has a slight jerking character.

Comments.—From the history of the case alone, it is quite probable that this man has organic lesion affecting the aortic valves. The reasons for suspecting that condition are, that he has had frequent attacks of vertigo, which rarely accompanies mitral lesion. This symptom almost always accompanies aortic lesion when there is considerable hypertrophy of the left ventricle. Again, he has not had cough and expectoration, a fact which points to aortic rather than mitral lesion. For, a mitral lesion continuing twelve years, without some evidence of bronchitis, would be a good reason for suspecting that it might be a mitral lesion, is the fact that it was developed while young. His pulse is not characteristic of either aortic or mitral disease. So far then as the history can assist us, it favors aortic lesion, and we will now determine by physical examination whether our suspicion is well founded.

Physical Examination.—On inspection, it will be seen that his countenance does not indicate a very great deal of suffering. It will also be noticed that there is an increased area of the apex beat, and that it is carried to the left and as high as the fourth rib; there is also a slight pulsation of the carotids. Upon palpation, it is found that the cardiac impulse is more forcible than normal.

On percussion it is found that the area of normal cardiac dullness is much increased. From the fact that there is an increased area of apex beat, from the fact that it is carried considerably to the left, and that the cardiac impulse is more forcible than normal, and that there is increased area of dullness in the precordial region to the left, we are led to the conclusion that there is hypertrophy of the left heart.

On auscultation, a blowing sound is heard, synchronous with the first sound, has its greatest intensity at the apex, is conveyed to the left, and heard behind.

A slight murmur is also heard at the base, and is conveyed into the carotids. There is some question, however, as to whether the latter murmur is conveyed from the apex or belongs to a lesion at the aortic valves. It seems to possess a different character from the murmur heard at the apex, and from the additional fact that it is heard in the carotids, I should be inclined to regard it as a murmur indicating organic lesion at the aortic orifice. We have, then, in this case, aortic stenosis and mitral regurgitation. There is also hypertrophy of the left heart, with some dilatation of its cavity. There may also be some dilatation of the right ventricle, indicated by the œdema of the feet; but before deciding this point I should wish to examine the patient's urine.

The treatment of this case is for the most part purely hygienic. He should take iron daily. Where there is failure of heart-power, as is evidenced by the œdema of the feet, digitalis may be of service. The better treatment in that particular, however, is to prevent failure of heart-power by avoiding everything which calls the heart into active service. Life in the country is better for him than life in a city. He should, if possible, live in a climate where there is the least liability of having an attack of rheumatism. For, after one attack of rheumatic endocarditis, every subsequent attack renders the case worse and worse, until finally the heart gets into an unmanageable condition, and goes over to complete failure of the right ventricle, there will be no hope of affording permanent relief, not even temporary relief.—*Med. Record.*

REMOVAL OF MECKEL'S GANGLION IN FACIAL NEURALGIA.

George W. Meyer, aged fifty-three, applied to me in January, 1877, for relief of a neuralgia of the fifth nerve of eighteen months' duration. The disease began with a slight pricking sensation in the corner of the mouth, left side. In a short time this was succeeded by the most intense pain, which followed the distribution of the superior maxillary nerve, after the lapse of several months occasionally affected the inferior dental branch.

From the well-known character of the physical which who had been previously in attendance I had to hope for in the way of medication, feeling assured that they had used every remedy like with a one be of service to him.

I at once proposed to excise the nerve, but this proposition was declined, and I set to work to devise measures of relief.

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fects of this ever-present and intensely agonizing pain. He was unable to attend to his business, and, discouraged with life, he was well nigh at the point of desperation.

I used in succession all the measures likely and unlikely to prove either palliative or curative, including quinin in large doses, and in small doses combined with iron, deep injections of chloroform, and also of carbolic acid, hypodermic injections of morphia, and of atrophine, together and separately. Galvanism had been used by a previous attendant, but with no success; counter-irritation only aggravated the trouble; croton choral hydrate gave slight but transient relief.

For days and weeks and months this man walked the floor of his room, the victim of a pain constantly present, but which, in frequent paroxysms of intensity, compelled him to assume all the shapes and figures of a professional contortionist. Nothing but a narcotism dangerous to life itself gave him any immunity from suffering, and this was succeeded generally by an aggravation of the pain.

At last he consented to an operation, and on February 27th I performed a modification of Carroch's operation for excision of the superior maxillary nerve, assisted by Drs. Pilcher, Rockwell, Jewett, Hamilton, and Leary. Ether being administered, the patient was seated with his back to a window. The incision began at the inner angle of the eye, on a level with the infra-orbital ridge, extending downwards about three-quarters of an inch then curved outwards and upwards, terminating at a corresponding point opposite the outer angle of the eye. This formed a small semi-circular flap, which, when dissected from the bone and turned upwards, laid bare the anterior wall of the antrum of Highmore, and the infra-orbital foramen. The sheath of nerve formed by the division of the superior maxillary after leaving the infra-orbital foramen was now dissected from the under-surface of the flap, and a trephine five-eighths of an inch in diameter applied to the bone, with its crown overlying the infra-orbital foramen, and its point on a line perpendicular to the same. A few turns of the instrument soon removed the button of bone, and the cavity of the antrum was brought into view. A reflecting mirror fastened upon my forehead lighted up the parts well, and no difficulty was experienced in cautiously breaking down the floor of the orbit with a small three-cornered chisel provided for that purpose.

Following the nerve along the infra-orbital canal occasionally stopping to suppress the hemorrhage from the infra-orbital artery, I finally reached the posterior wall of the antrum, which I perforated with a one-half inch trephine, thus exposing Meckel's ganglion. Here the hemorrhage from that portion of the internal maxillary artery which is contained in the sphenomaxillary fossa gave rise to some delay, but by patiently waiting and apply-

ing small pieces of sponge tied to whalebone the bleeding was controlled, and the operation completed by breaking down and removing Meckel's ganglion and dividing the orbital, sphenopalatine and posterior dental branches, and by means of a pair of small curved scissors dividing the nerve at its point of exit from the cranium through the foramen rotundum.

The hemorrhage having ceased, the parts were well cleansed and the flap brought down to its position and secured by seven silver wire sutures. The operation occupied about an hour.

The patient rallied well, union by first intention occurring except at the point where a ligature which had been applied to the infra-orbital artery passed out from under the flap. The sutures were removed on the sixth day, and the ligature came away on the seventh.

The operation, so far as the relief of the neuralgia depending upon the superior maxillary nerve, was a complete success. The patient's general health still continues to improve, but he occasionally complains of pain along the line of the lower jaw and in the lower teeth. Should this continue I intend to excise a portion of the inferior dental branch.—*Dr. Fowler, Kings Co., N. Y., Med. Society's proceedings.*

ABSTRACT OF A CLINIC BY PROF. FLINT, BELLEVUE HOSPITAL, NEW YORK

ENDOCARDITIS.

Before introducing the next patient I wish to make a few general remarks on the inflammatory affections of the heart. Carditis is a subject of little importance, and need not detain us; but endocarditis is deserving of the closest attention on account of the very serious results which are so apt to follow it. It is a remarkable fact that this affection was utterly unknown until very recent times, and that its discoverer, the distinguished Bouillaud, is still living. Perhaps, however, it is not so strange, after all, that it escaped notice so long, since we never get acute symptoms with it except when it occurs in the rare form of ulcerative endocarditis. We are perfectly familiar with it now, in connection with rheumatism and Bright's disease, and yet even in acute rheumatism, when it sets in, there is no appreciable difference in the symptoms. We have to depend entirely on physical examination for its detection, and this art, as you are aware, has not been known long. The patient whom I now bring before you entered the hospital while suffering from acute tubal nephritis, but had no heart-trouble whatever. Afterwards it was noticed that he had, and the murmur heard was a mitral systolic one, loud, rough, and for the most part confined to the præcordium. It was never regurgitant (not being transmitted be-

yond the apex). Now we have a basis for diagnosis.

The history of the case is as follows. James G., 40 years of age, and a native of England, was admitted to the hospital about a fortnight ago. He is a gardener by occupation, and his family history is good. He acknowledges that he is a hard drinker (taking more or less liquor before breakfast), but denies that he has ever had venereal disease. His health was good up to the commencement of his present attack. Three weeks before that time he caught cold, and drank an unusual quantity of spirits. Somewhat later he noticed some œdema of the feet, and this extended until his whole body became water-logged. At the same time he suffered from headache, nausea, and vomiting; but he nevertheless continued working as well as drinking. The night before his admission he had a violent attack of delirium, three men being required to hold him in bed. He says that for six months past he has been passing a larger quantity of urine than normal, and that there has been no change in this respect of late. On admission, it was found that he was suffering from general œdema, but the chest-sounds were normal. The urine was markedly albuminous, and contained both large and small hyaline casts. Under the influence of active catharsis, and cupping over the region of the kidneys, the œdema rapidly disappeared. There was at once a marked improvement in his condition, and the delirium from which he was suffering when admitted gradually subsided. He was afterwards put on digitalis.

One week ago he complained of some pain in the chest, and on examination there was discovered a soft blowing murmur at both the apex and base of the heart. It was loud and rough, extending over the entire cardiac area. We have here the evidence of an acute endocarditis. In listening to the murmur you will notice the difference in the sound over the apex and over the body. This has no special significance, and is simply due to the different conditions in the different parts. The patient is doing well; but it is still a question in his case whether the acute affection did not supervene upon a chronic one. If the albumen does not soon disappear, we shall conclude either this, or that the present is one of those rare cases in which chronic Bright's disease succeeds to acute nephritis.

PERICARDITIS.

While speaking upon these inflammatory cardiac affections, I should like to have an acute case of pericarditis to show you, but, unfortunately, there are none in the house just now. Under these circumstances I shall have to do the best I can; and the patient whom I now present to you is one who had an attack of this affection a month ago. His history is as follows. William B., a native of Germany, 25 years of age, and a seaman by occupation. He was healthy up to three years ago, when he had

a severe attack of rheumatism, lasting about a month. He had no pain over the præcordial region at that time. (Pericarditis, as you are aware, is more frequently associated with rheumatism than with any other disease, but it is also met with in Bright's disease, as well as in pleurisy and pneumonia). His present illness commenced one week before he was admitted to the hospital. This was another attack of acute articular rheumatism, and it first affected the ankles, then the knees, and afterwards the hands and fingers. Just before admission he noticed a pain over the præcordial region. It was at first dull, but afterwards very acute, and accompanied by dyspnoea.

It is noted in the history prepared by the house physician that the pain and swelling in the limbs were greatly relieved by the ride from his residence to the hospital in the ambulance, so that he was able to walk about the ward on his arrival here. This serves to show the benefit of what I may call methodic friction. When a joint is affected with acute rheumatism, great relief can be given by rubbing it with some lubricating liniment, at first with the lightest possible touch, and afterwards increasing the pressure applied until a very considerable amount of force can be used, to the great comfort of the patient. The ride in the ambulance, no doubt, had some such effect as this. At present the patient suffers from no dyspnoea, and the pain has almost entirely disappeared. On auscultation a loud, harsh friction-sound was heard all over the præcordial region, and also a soft blowing murmur at the apex but not transmitted beyond. It may be laid down as a rule that when we have rheumatic pericarditis there is also endocarditis present. The treatment consisted at first of twenty grains of alicyclic acid every three hours, together with counter-irritation over the heart. Afterwards the iodide of potassium was given. After the patient had been in the hospital a few days the presence of fluid in the pericardial sac was detected, as well as in both pleural cavities. One week ago the note in the history is that the murmur still continues, but that the fluid is gradually diminishing, while the patient's condition greatly improved. Personally, I have not examined the patient as yet, and before doing so let me run over the physical signs of pericarditis. The friction-murmur which is one of these characters is always limited to the præcordium, or extends but very slightly beyond it. We are not to pursue any in the history that there was a large effusion in the pericardium in this case. Let us suppose that it was. We should then have found a total absence of heart impulse. On auscultation, the heart-sounds would have seemed all muffled and distant, both the first and second sounds would have been very much alike. In such cases the first sound is always notably weak and valvular in character. Another indication of the affection is the area of dulness extending just over the area of the præcordial sac, to the abdomen, and our attention on such a case. In the history of this patient, though I have not seen him, as "black" affection, is merely a stricture, a pericarditis, a the press age, and as I can, a pericarditis or of the præcordial sac, this not a class of disease, what yellow at the bedside, entirely liable to the duodecimo, this concluding no his or. The continued general he in cold, not complete, that it has remain in period. I pursue any as he continues an expectation. Patrick laborer. To abdomen, peritoneum not only to

dial sac, which is visible to the eye and appreciable to the touch, in the form of a pyriform tumor. These signs afford the proof of pericarditis and pericardial effusion. At the present time the symptoms have entirely disappeared in this case. In addition, there is very little fluid in the pleure now, and the patient is practically well. It is remarkable that I do not get any endocardial murmur whatever to-day; and I therefore conclude that this is one of those cases (an exception to the general rule) in which the murmur entirely disappears. This is due to the fact that the products of the inflammatory action lately present have all been washed away; and our patient is certainly to be congratulated upon such a desirable result.

JAUNDICE OF TWO YEARS' STANDING.

In this patient you see at once the yellow discoloration of the skin, as well as of the conjunctiva. You notice, also, the darkness of the color, which, though not deep enough to constitute what is known as "black jaundice," is sufficient to show that the affection has already lasted for some time. Icterus is merely a symptom; but it always indicates obstruction. The most common cause of it is a duodenitis, and among the others may be mentioned the pressure of various tumors on the biliary ducts. The patient's name is James P.; he is 51 years of age, and he was admitted three days ago. As far as I can make out, there is no history of acute duodenitis or of hepatic colic; nor is there any evidence of the presence of a tumor. You may ask me, may this not be an affection of the liver itself? In this class of disease, however, there is, as a rule, no jaundice whatever. The rare affection known as acute yellow atrophy of the liver is an exception, but that is attended by numerous grave symptoms which are entirely lacking in the present case. The most probable condition here is a chronic inflammation of the duodenal mucous membrane; and I arrive at this conclusion by a process of exclusion, there being no history of gall-stones or of any sort of a tumor. The patient tells us that his jaundice has continued now for two years; yet his digestion and his general health are good, though the stools are rather pale in color. The obstruction, then, is evidently not complete, and, as there is no reason to believe that it has increased any of late, he will probably remain in his present condition for an indefinite period. In the mean time I should not advise to pursue any active course of therapeutics, but, as long as he continues well and comfortable, simply adopt an expectant plan of treatment.

CIRRHOSIS OF THE LIVER.

Patrick C., aged 49, a native of Ireland, and a laborer. We find here a globular enlargement of the abdomen, with a sense of fluctuation. Hydroperitoneum, without any other dropsy, always points not only to an affection of the liver, but to one par-

ticular affection of that organ. We have no history of this case, but its etiology is all-sufficiently explained in one word,—“drink.” Now let us put two or three questions to the patient. What have you been accustomed to drinking? “Spirits.” Before breakfast? “Yes.” How many glasses in the morning? “One, two, three, and sometimes four, according to circumstances.” Then do you drink before dinner again? “No.” Do you drink much water with your liquor? “Very little, and often none at all.” Now, gentlemen, we have here a typical illustration of the connection that exists between the use of spirits thus taken and cirrhosis of the liver. If an individual wishes to indulge in ardent spirits and at the same time avoid cirrhosis, let him be careful not to take it either on an empty stomach or with but little or no water. The constant irritation from such drinking as our friend here has been accustomed to results, after a time, in a new formation (of fibrous tissue) which is probably of an inflammatory nature. Another effect that follows is impairment of the general nutrition, giving rise to emaciation, cachexia, etc.

In the way of treatment, the indication is to perform the operation of tapping just as soon as the quantity of effused fluid causes inconvenience to the patient. I would furthermore advise the repetition of the tapping as often as the abdomen increases again to an inconvenient size; since it can be done with impunity whenever there is a necessity for it. The time may come when the peritoneum will not fill up again; and I have myself observed this in occasional instances. I regard the treatment of cirrhosis by repeated tapping as much preferable to the active course of cathartics, diuretics, etc., which it is otherwise necessary to resort to.—*Medical Times.*

NEW YORK PATHOLOGICAL SOCIETY.

UNEXPECTED DEATH—FATTY DEGENERATION OF THE HEART.

Dr. Austin Flint exhibited a heart which he had not seen before that evening. It was not much enlarged in volume, the valves and coronary arteries were sound, and there was nothing found except the gross appearance of a certain amount of fatty degeneration. The history of the specimen was this: Some few days ago, early in the morning, two gentlemen drove in a carriage to Dr. Flint's house, and one of them said that his friend had heart disease, was afraid to walk from the curb to the office, and desired the doctor to come out and examine him. Dr. Flint did not think that there was any special danger in such an undertaking on the part of the patient, and the latter came in the office. The gait was slow and he manifested in manner and in countenance a great deal of anxiety.

Dr. F. found the heart palpitating. He satisfied himself that it could not be enlarged, that there was no valvular lesion, and informed the patient accordingly, assuring him that there was no danger, and that he should make his mind easy. He was instructed, however, to come again for another examination, which he accordingly did the day following. At this examination the heart was beating rapidly, the impulse did not give the impression of feebleness, and there was a systolic murmur heard over the body of the heart, but not transmitted beyond the apex. The opinion of the previous day was repeated, and after receiving some general directions the patient left. Dr. F. had an urgent summons in the evening to which he could not respond, and Dr. Perry visited the patient. Dr. F. remarked that there was one circumstance in the patient's history which did not however make the impression upon him which it should, and that was a period of unconsciousness after running upstairs. Dr. Perry obtained this history: The patient during the afternoon was seized with another fit of unconsciousness, which lasted for a few moments, during which time there was marked lividity. Dr. Perry, on his arrival, found the pulse not deficient in force, and beating with regularity. He recognized the murmur, but nothing else; gave a favorable prognosis, prescribed an ethereal stimulant and left. During the same night Dr. P. was again summoned to find to his surprise his patient moribund, unconscious, and with scarcely any appreciable pulse. Of course in a short time the patient died. Dr. Flint, in the absence of any better cause for death, assumed that fatty degeneration existed, and yet during life, notwithstanding careful examinations, no auscultatory evidence of such a condition was found. The case was of interest not only in itself, but as proving that there is no danger, and yet even at the risk of a mistake such an assurance should not be denied to them. In answer to questions from members, it was further stated that there was no membranous effusions in the meshes of the columnæ; that a few weeks before death the patient suffered from shortness of breath.

Dr. Janeway remarked that fatty degeneration of the heart was blamed for more sudden deaths than it deserved. Especially was this the case in deaths from chloroform, the slightest amount of extra fat upon the surface of the organ being seized as the immediate cause of death.

Dr. M. P. Jacobi referred in this connection to a specimen of heart presented last spring, in which the cause was not explained by any distinct pathological reason; and Dr. Janeway called attention to specimens of heart containing air, likewise exhibited by him at a previous meeting.

CANCER OF THE STOMACH WITH ABSENCE OF PAIN.

Dr. E. C. Seguin presented a stomach removed

from a patient whom he had seen in consultation with Dr. Thurman. The patient, aged 74 years, enjoyed good health until the summer of 1876, when she fell below par. She visited the Centennial, but went through it without a chair, thus showing a considerable amount of endurance for her years. After her return she suffered from dyspepsia, anorexia, and nausea. Dr. S. saw her Nov. 15th. The only symptom she then complained of was great weakness and marked emaciation. Dr. Thurman discovered a painless swelling in the left hypochondrium, just below the border of the ribs. From the absence of all positive symptoms this tumor also discovered by Dr. Seguin, was thought by both gentlemen to be impacted feces. The swelling was manipulated and enemata given, and after a few days the mass seemed to disappear after the discharge of several scybalous masses. In the beginning of December the symptoms of dyspepsia became more marked. The first vomiting occurred only two weeks before death; was very slight in character. About this time there was regurgitation of food, mixed with a little brownish liquid. At no time was there any coffee ground vomiting. The emaciation progressed, the repugnance to food was very great, and the loss of strength was extreme. Shortly after the disappearance of the tumor in the left hypochondrium, there was another tumour near the median line and on a level with the other tumor, which was duly recognized as an independent affair and as a cancerous growth. The specimen was chiefly interesting in connection with its clinical history. The specimen on examination was mainly composed of cylindrical epithelium.

Dr. Briddon referred to a case of cancer of the stomach, in which there was no pain or vomiting but in which the diagnosis was made from the progressive emaciation. He asked if absence from pain was uncommon.

Dr. Flint answered that the absence of marked pain was the rule.

Dr. M. P. Jacobi remarked that, before arriving at a diagnosis of such cases by exclusion, the diseased conditions should be taken into account, viz.: the prodromic stage of leukæmia, and progressive pernicious anæmia.

Dr. Janeway mentioned a case of cancer of the stomach, the diagnosis of which he made by dissection, covering the umbilicated nodules of cancer of the liver. As primary cancer of the liver is rare, as a secondary disease follows cancer of the stomach, the presumption is legitimate that the latter condition of things exists. In addition to this evidence, when a tumor of the stomach exists, the diagnosis is quite positive.

In regard to vomiting as a symptom, much might be said. He believed that it was more frequently associated with deposits in the neighborhood of the pylorus. In that situation

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peristaltic action of the stomach was seriously embarrassed. The contrary was the case with tumors in the line of the greater curvature—and hence, in those, absence of vomiting and pain was the rule.—*Med. Record.*

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The annual meeting of the British Association for the Advancement of Science, was held in Plymouth. The President, Allen Thompson, F.R.S., a distinguished member of the medical profession delivered a very interesting address. His subject was the "Development of the Forms of Animal Life." He said, "The reflection forces itself up on us that we are just as ignorant of the mode of first origin of all the compounds of the inorganic elements as we are of that of living matter; and we may therefore be excused if we suspend all theory and conjecture until we shall be guided to more reliable hypothesis through the plain track of observation and experiment. But the practical applications of the increased knowledge of the origin of minute animal and vegetable organisms are very numerous. It is now proved beyond doubt that the origin of putrefaction and fermentation is dependent on the presence in the substances which are the seat of change in these processes, or in the surrounding air, of the germs of minute organisms of an animal or vegetable nature, and that the maintenance of the chemical changes in which these processes mainly consist is coincident with and casually (if not essentially) dependent upon the growth and multiplication of these organisms.

"Prof. Lister had the merit of being the first to apply the germ theory of putrefaction to explain the formation of putrid matters in the living body, and he has founded on this theory the now well-known antiseptic treatment of wounds, the importance of which it would be difficult to over-estimate. The success or failure of plans for the preservation of meat and other articles of food without question depends on the possibility of the complete exclusion of the germs which are the cause of putrefaction and fermentation; and their management must therefore be founded on the most accurate knowledge of these organisms, and the circumstances influencing the persistence of their vitality and the vigour of their growth. The theory of Biogenesis has also lately been the guide in the investigation of the causes of various forms of disease, both in the lower animals and in man, with the result of showing that in many of them the infective substance consists, in all probability, of germs of minute animal or vegetable organisms.

There is very great probability, indeed, that all the zymotic diseases (by which we understand the various forms of fevers) have a similar origin. As has been well remarked by Baxter in an able paper on 'The Action of Disinfectants,' the analogies of action of contagia are similar to those of septic organisms, not to processes simply of oxidation or deoxidation. These organisms, studied in suitable fluids, multiply indefinitely when introduced in all but infinitesimal proportions. Thus they are, as near as we can perceive, the very essence of contagia."—*The Doctor.*

GRAVES'S DISEASE, (EXOPHTHALMIA) CLINIC.

BY WM. PEPPER, M.D., PHILADELPHIA.

We give this name to a group of symptoms, of which enlargement of the thyroid gland, protrusion of the eyeballs, and disturbance of the heart's action are the chief. It is not merely the thyroid enlargement which constitutes the disease, for you know that in many parts of the world goitre, even of extreme degree, is very common, and yet such cases are not to be regarded as in any way identical with Graves's disease. It will be found, in simple goitre, that the enlargement is progressive, and consists of a simple hypertrophy of the gland, unattended with either pulsation or thrill, and that there is an absence of exophthalmos and of cardiac disturbance. Moreover, the causes which lead to simple goitre are often endemic, as in the valley of Switzerland, although the affection also occurs in a sporadic form; but in such cases the peculiar influences which favor the development of Graves's disease are wanting. We can better appreciate these and other points upon a study of the present cases:

Mrs. J. L., 56, married, born in Germany. Has had twelve children, the youngest of them being at present 14 years old. Most of her labors have been difficult, particularly the last. She was much affected by the loss of her husband a few years ago, who died from the effect of gunshot wound received during the war. She has suffered from frequent leucorrhœa, pain in her back, and other evidences of uterine disease. She has had rheumatism occasionally. Her menopause occurred two years ago, when she was fifty-four. Since that time she has noticed palpitation, choking sensations, blurred vision, and exophthalmos. She is of a very nervous temperament, and very easily frightened. She is dizzy every now and then. Blowing, anæmic murmur in pulmonary artery. Pulse 140. No valvular murmur. Thyroid gland enlarged, with pulsation and slight thrill.

Wm. S., æt. 17, born in Buck's County, Penn-

sylvania. Had a severe attack of typhoid pneumonia at about the age of fourteen. Six months later he narrowly escaped drowning, and received a severe nervous shock. Last summer he had a mild sunstroke. After his escape from drowning he became very nervous and easily agitated. In six months, palpitation of the heart appeared, and then marked enlargement of the thyroid gland. He has suffered frequently from sudden attacks of the thyroid, with thrill and pulsation. Heart's action much disturbed, but no valvular murmur; slight exophthalmos.

The causes which produce this disease are excessive care, anxiety, overwork, particularly if combined with deficient or improper food. In some cases, it would certainly seem that the disease was induced by pregnancy or confinement, and in not a few cases, in females, the predisposing cause seems to be severe uterine disease or menstrual disorders. I have spoken of the three symptoms, but a glance at the cases will show that these symptoms are present in different degrees in different cases. For instance, the enlargement of the thyroid gland may be moderate or even slight; or, on the other hand, it may be truly enormous. In these latter cases there may be occasional sensations of strangling or of great difficulty in swallowing, from the pressure of the enlarged gland upon the trachea or œsophagus. It usually happens that the enlargement varies from time to time. As a rule, both lobes are equally affected, though one may be somewhat larger than the other. The thyroid gland is highly vascular, and the arteries leading to it are very tortuous. When, then, there is violent arterial over-action we would be prepared to find pulsation and thrill over the gland. These phenomena are frequently present in Graves's disease; in some cases they are present at times only, while in other cases they may be absent throughout. The characters of the thyroid enlargement point strongly to the view that, it is due to a dilated and enlarged condition of the vessels with some hypertrophy of the glandular and fibrous tissue, and possibly with a varying degree of interstitial serous effusion. In connection with this we must note that there is frequently violent throbbing of the carotids and of their branches.

The exophthalmos is no less varying in its intensity; in some cases it is so slight as to attract but little attention; while in others it is so extreme that the globes cannot be covered by the lids, and it becomes necessary to protect them from injury by exposure to air and dust. The protrusion seems to be due to the distention of the vessels of the post-ocular tissues, with serious infiltration, and perhaps some hypertrophy of the cellulo-fatty tissues behind the globe.

The disturbance of the heart is the most constant, and is frequently the earliest of the symptoms. It also varies much in degree. There is

rarely any organic disease at first, though after excessive palpitation has long existed, excessive hypertrophy may supervene. The action of the heart is rapid—90 to 130 per minute—and is liable to paroxysms of irregular palpitation, sometimes from very slight causes. Owing to the anæmia which usually coexists, it is not unusual to find marked anæmic murmurs at the base of the heart, along the course of the pulmonary artery, and over the jugular veins in the neck.

The diagnosis of Graves's disease can present but little difficulty if attention be paid to the characteristic features above indicated. It is really a very curable affection in many instances, provided it come under treatment at an early stage, and the hygienic conditions can be rendered favourable. Even when cure cannot be effected, the troublesome symptoms can be held in check. In advanced cases, or when the cause persists, the symptoms grow more grave. Anæmia becomes intense, dilatation of the heart, with degeneration of its muscular fibre ensues, circulation fails, dropsy supervenes, and death follows from exhaustion and general anasarca.

In the treatment the greatest care must be given to the removal of the causes, and in securing rest, good food, change of scene, and entire release from cares. The various functions must be carefully attended to, and local disorder in females removed by suitable treatment.

The remedies upon which I rely with most confidence are digitalis, iron, ergot, and bromide of potassium. These are required to meet the different indications, and will, therefore, be called for in different proportions in different cases. Digitalis is the most valuable remedy for controlling the functional disturbance of the heart. It may be given freely (gtt. x. to xv., three or four times a day), and continued for long periods at a time. Iron is absolutely essential when anæmia exists, as is frequently the case; and when this condition is marked large doses of iron should be administered, in whatever form is most acceptable to the system. Ergot has proved of much value in my experience. Not only is it given internally, with a view of influencing the contractility of the walls of the arterioles, but we have obtained most excellent results from the injection of diluted ergotine into the substance of the enlarged thyroid glands. The needle may be introduced to the depth of half an inch or an inch, and from six to ten minims of a solution, containing ninety-six grains of ergotine to the fl. ℥ i. of distilled water injected. Bromide of potassium is frequently called for, partly on account of the general nervous condition, but chiefly to assist the digitalis or ergot in controlling the irregular action of the heart and arteries.—*Med. Record.*

TETANUS.

TREATMENT OF, BY PROF. H. C. WOOD, PHILADELPHIA.

This is the same man that I lectured on last week; a case of pronounced tetanic seizure. He has been entirely relieved of his severe symptoms by treatment, but is still in a semi-stupid condition; whether this condition be the consequence of exhaustion, or the effect of the large doses of chloral and the bromides, or be due to an effusion into the brain, I cannot yet with certainty say. The patient, as you can see, has improved wonderfully under nourishing diet and medicinal treatment. The cerebral congestion has been much reduced by the application of leeches to the nape of the neck.

Now I take this opportunity to speak to you at some length on the proper treatment of tetanus. In treating any disease, the first step should always be to find out exactly what you want to do. You must study with care the dangers of the disease in question; try to discover whether the complaint be self-limited or not. Tetanus has not a definite course to run, and it should therefore, be possible to control or shorten it. How does tetanus kill a patient? There are generally two ways in which death occurs; either from stoppage of respiration, caused by general tetanic spasm, stiffening and contracting the diaphragm and restricting the chest walls, or more usually, from the profound exhaustion brought on. The contracted muscles of the jaws and throat interfere, too, with alimentation, and hasten the fatal result. To come down to the bottom facts, then, in the generality of instances the inability to take food leaves the enormous convulsive wear and tear of the muscles unprovided against. The all-important treatment of tetanus, therefore, resolves itself into careful and prompt nourishment of the patient. The feeding must be systematic, and must be carried on at short intervals, every two or three hours during day and night, unless the patient is able to sleep, in which case the interval may be lengthened to four hours during the night. In severe cases solid food must be avoided; the mere effort to swallow may produce a fit; and then you can readily imagine how serious would be the immediate result should the convulsion surprise the patient with a large bolus of food in the throat. We must, therefore, rely on liquid food. Milk is by far the best routine diet. Beef tea and beef essence may afford excellent temporary stimulus, but they neither of them possess much staying power. In addition to milk, raw or pulped meat, farinaceous foods, soaked crackers and bread, etc., may be employed. I think very highly of pulped meat. Take a piece of good, juicy beef, out of the rump, lay it on a bread board and scrape it thoroughly with a knife. In this way all the pulp

of the meat is extracted and the indigestible fibre left behind. The results of the scraping may be given in the form of croquets, or mixed with brandy and sugar. Be sure, too, that you don't tell your patient that you are giving him raw meat; otherwise you may have difficulty in getting him to take it. Then, absolute quiet is necessary. Every paroxysm is a period of intense work, and so rest is peculiarly demanded. Nobody must be allowed to come into the room, and the nurse must wear carpet slippers, and do no talking. The room, too, had better be darkened. As regards medical treatment, alcohol must be given in nutritive doses, not as a stimulant; therefore, give it in small quantities with the food, in milk, or in the shape of raw eggs beaten up with wine. Among drugs there is scarcely any remedy which has not been used, and I have no doubt that some physicians think they are all about alike in value; I am satisfied, however, that proper treatment is productive of good. Some patients, indeed, will get well and some will die, treat them as you may. There is, however, a residuum of cases which proper treatment at the proper time will save. In choosing our remedies, then, what do we want? Evidently something that will lessen the motor action of the spinal cord, allay undue sensibility, and force sleep. I use, in their due place, six drugs; chloroform, ether, opium, nitrite of amyl, the bromides, and cannabis indica. The homœopaths have recommended strychnia, but, as might be expected, it only increases the spasms. Some have used belladonna, but I think that as a stimulant of the spinal cord it does harm. In protracted cases, of course, the remedies have to be changed from time to time. Three of those I have mentioned are brief, and rapid in their action; viz.: chloroform, ether and nitrite of amyl. Their effects pass off very quickly. As the spinal cord is continually irritated in tetanus, you would have to administer nitrite of amyl every five or ten minutes to get any lasting effect. The verdict is, of course, against any such improper use of the drug. Its only proper use is to get a temporary effect in very severe cases. Therefore don't employ it as the main treatment, but only as an auxiliary. So, too, with chloroform and ether. Chloral and the bromides are the best known depresso-motors. It is often very useful to combine several remedies in your treatment of the disease; you must, however, not give them all at the same time. I would advise something like the following plan: Bring the patient well under the influence of the bromide of potassium, by an initial dose of half an ounce, followed by half a drachm every three or four hours. Then, to obtain sleep at night, administer, at bedtime, thirty grains of chloral with some opium. Nitrite of amyl should be employed from time to time, to stop violent spasms. If bromism

comes on, you may substitute cannabis indica for the bromides; be sure, however, that you employ a trustworthy preparation of that drug. A great deal has been said and written concerning the so-called *traumatic* treatment in this disease, in the shape of blisters applied along the spine. This seems to me like adding a new peripheral irritation to one already existing there. A blister on the nape of the neck is of great value in reducing cerebral congestion. But I am really afraid of the heroic treatment. Some, too, have highly advised the continued application of ice to the whole length of the spine. I doubt whether even the steady use of ice will affect the spinal cord. I have made some experiments myself, to test the penetrability of cold applications to the external surface of the body. The application of ice to the head of a cat, for example, will affect perceptibly the base of the brain, but the mass of bone and muscle which covers the spinal cord precludes, as I should think, the possibility of any profound impression of cold there. With respect to nerve stretching, which has also been tried, I am not a believer. If, indeed a nerve be constricted in a mass of cicatricial tissue, it would be perfectly right to cut down upon the constricted part and free it; in other cases I should be in fear of a severe neuritis being set up by the operation.

The man who is before you has had no spasm for a week, and is now entirely rational, with but slight mental hebetude, and very little delirium during sleep. I attribute this result mainly to the blister, medical treatment, and systematic feeding at short intervals. His mind has been always clearer after a blister to the neck has begun to draw.—*Med. & Surg. Reporter.*

TUMOUR OF THE LOWER JAW REMOVED WITHOUT EXTERNAL WOUND.

Ellen M., aged 33, was admitted into Mr. Maunder's Ward, at the London Hospital, on June 4. About December last, the patient first noticed a small swelling of the gum, near the back teeth, on the right side of the lower jaw. She thought it was merely a gumboil; it was neither tender nor painful, and its colour was of a reddish tint. When the tumour had been growing for about two months, the patient sought advice of her doctor, who strangulated it with catgut, and a piece of the growth came away. This operation was performed a second time, and another piece removed. After this two decayed teeth were extracted. The skin opposite the seat of the tumour had been painted three times daily with tincture of iodine, which seemed to retard the growth. The mass was always hard, and the patient could even masticate portions of her food on this side. Occasionally it bled a little.

On admission, the right cheek of the patient bulged outwardly, and, on looking into the mouth, a reddish growth, the size of a large walnut, occupying the site of the molar teeth, was visible. It was painless, hard and smooth, much resembling gum-tissue.

On June 8, the patient being under the influence of an anæsthetic, and conveniently placed in a dentist's chair, the mouth was held open with a gag. A knife with a rounded end, guided by the tip of the left forefinger, was made to divide the soft parts over the anterior margin of the ramus just about its junction with the base of the bone, and then the periosteum and muscular attachments on both sides were separated with a raspatory. The bone was next partially divided with a small saw, and the section was completed with cutting forceps. The second bicuspid tooth, displaced by the growth, was now extracted, and the body of the bone was cut perpendicularly at this spot by means of the saw and the forceps. After the knife had been passed along both sides of the fragment to divide the mucous membrane and other structures down to the bone, the raspatory and forefingers then completed the operation. Thus the tumour and fragment of bone, stripped of the periosteum, came away in one piece. The facial vessels were not divided, and the bleeding was unimportant, no artery requiring ligation.

Remarks.—Mr. Maunder said such was the history of a case of fibrous epulis. It was benign, but recurred unless the bone surface whence it grew was also removed. Further, the growth was generally pedunculated, but in this instance it was sessile. Seven years ago (March 9, 1870) he had, he said, demonstrated in that theatre the feasibility of removing, without external wound, large lateral portions of the lower jaw, the seat of the tumour. The patient on that occasion was ten years of age, referred to him by Mr. Owen, of Leatherhead. From that child he had taken away an extent of bone comprised between the middle of the left ramus and the site of the right canine tooth. The second case similarly treated was sent up by Dr. Dove, of Pinner. Both patients have since been often seen in capital health, and he felt justified in stating "that the practice of our art will have one horror less for a patient, who can be assured that no unsightly scar will disfigure his face." He need scarcely suggest that the face of the female should be most scrupulously saved from disfigurement. Neither was it necessary to point out the distinctive characters of the above operation as compared with that of a comparatively trivial kind for the extraction of a sequestrum already nearly accomplished by nature. Fifteen years ago he had seen the late Mr. John Adams remove the whole lower jaw in a state of necrosis; and three years ago he (Mr. Maunder) had taken away in one piece rather more than the body of

this bone, necrosed. Both patients were getting new bone generated as a substitute for the original, at the date of operation.—*Lancet*, June 23, 1877. *Med. News & Library*.

THE USE OF THE TREPHINE IN DEPRESSED FRACTURES OF THE SKULL (*The British Medical Journal*, July 21, 1877).—Dr. Robert S. Hudson, after alluding to the change in surgical opinion which has occurred since the time of Pott, and to the brilliant results which that surgeon obtained by the use of the trephine, proceeds to question the propriety of that change, and asks that the surgical practice of the mining districts around Cornwall be given its due weight in the consideration of the question. For many years the operation of trephining for depressed fracture of the skull has been of weekly, almost daily, occurrence, and, according to Dr. Hudson, a very large percentage of the cases recover. If death ensue, there are generally obvious causes to account for it, such as diffused injury with laceration of brain-substance, and fractured base; success usually depends on an early operation, as soon as possible after the accident. He sums up his remarks as follows:

"1. Surgeons practising in the mining districts around Redruth and Camborne have had, especially in former times, unusual opportunities for the study of head-injuries,

"2. In compound fractures of the cranium, it has been the invariable practice of the most experienced to elevate depressed bone by means of the trephine or Hey's saw, without waiting for symptoms of compression or irritation.

"3. It is believed by those surgeons that no danger whatever attaches to the operation *per se*; pyæmic risks are unknown; and recovery is the rule after trephining operations.

"4. So firm is popular belief in the efficacy of the trephine, that a surgeon who hesitated to employ it, under the plea of waiting for symptoms, would assuredly suffer in reputation, if, in the event of death, he were not put on his trial for manslaughter.

"5. Hospital statistics place herniotomy among the most dangerous operations; but the statistics of hospital surgeons in their private practice show to a demonstration that an operation for the reduction of strangulated hernia is practically harmless, even when it is necessary to open the peritoneal sac, and that the risk is directly proportionate to the length of the ignorant delay which has been allowed to exist previous to the operation. (Holmes's *System of Surgery*, vol. iv. page 692.) Although the parallel is not in every respect a complete one, we employ the trephine at the earliest possible period, and aim at preventing mischief by removing all sources of irritation.

"6. No matter how deeply prejudiced against the trephine our young surgeons may be when fresh from the schools, a few years' experience generally dispels the illusion; they become converts to the practice of the district, and cease to look on its employment as antiquated surgery."

In *Guy's Hospital Reports* for 1877, Mr. Davies-Colley contributes two interesting cases in which the trephine was successfully employed, and adds, "These two cases support the rule which most of our text-books either miss or fail to impress, that in punctured fracture of the skull it is the surgeon's duty to trephine at once, without waiting for symptoms of compression or irritation."—*Med. Times*.

METHOD OF ARRESTING HEMORRHAGE AFTER RESECTION OF THE TONSILS.—In removing the tonsils with the guillotine, it is important to remember that the organs are situated obliquely, like the pillars of the soft palate; more pressure should be made upon the lower than on the upper border of the instrument, and the tonsil will then be readily seized. It is better not to attempt to remove the whole of the organ, for after the removal of a portion the rest will atrophy, and removal of the whole is liable to be followed by dangerous and very obstinate hemorrhage. The hemorrhage may be due to the existence of inflammation at the time of operating, which inflammation also has a tendency to make the substance of the organ friable, so that it will have to be removed in small pieces; hence it is always advisable to defer the operation until the inflammatory stage has passed.

The great danger of hemorrhage, however, lies in the possibility of opening into the rich venous plexus, which lies at the bottom of the tonsillar fossa, and which is very easily wounded when the tonsil is removed entire. The hemorrhage from this source is sometimes extremely profuse, and is kept up by the movements of deglutition and spitting. The bleeding is not always primary, hence it is necessary to keep the patients under observation for a time. Sometimes it recurs after it has been once arrested. All the usual methods of checking the bleeding are unreliable, with the exception of direct compression made by the finger of the surgeon. The finger should be introduced into the mouth and applied directly to the wound, while counter-pressure is made from in front. This position must be maintained for several minutes, notwithstanding the attacks of suffocation, the efforts at vomiting, and the cough which the method excites. The hemorrhage is generally arrested at the end of two minutes. Dr. Panas, of the Hôpital Lariboisière in Paris, has on three occasions been called on to stop considerable hemorrhages from this cause, and succeeded in promptly arresting them by this procedure.—*Medical Record*, August, 1877.

VASO-MOTOR MECHANISM.

Dr. Bowditch, in his report on the Recent Progress of Physiology (*Boston M. and S. F.*), says that Huizinga has concluded that the vaso-motor apparatus consists of—

1. Local ganglia presiding over the rhythmical contraction of the vessels.
2. Vaso-constrictor fibres (spinal) going directly to the arteries.
3. Spinal nerve fibres inhibiting the local ganglia.
4. Inhibitory fibres from the skin to the neighbouring ganglia.

A local irritation of the skin may cause either vascular dilatation through 4, or vascular constriction through 2. Which result is produced depends upon the locality, and the intensity of the irritation.

Masius and Valnair regard the spinal vaso-constrictor fibres (2) as acting through the local ganglia instead of directly on the vessels, and they admit the existence of exciting as well as inhibitory fibres, running from the skin to the neighbouring ganglia.

All recent investigators assume the existence of nerve cells in or near the vascular walls, to account for the recovery of their condition of tonic contraction after section of the spinal nerves, but histologists have only rarely succeeded in bringing evidence in support of this assumption.

As, however, we find in the walls of the small intestines a plexus of nerve cells and fibres which seem to preside over the movements of that organ, it is not improbable that the blood-vessels may be subjected to similar control.

Ostroumoff has shown that this peripheric vaso-motor apparatus, whatever may be its structure, is able to hold the blood-vessels in a state of tonic contraction after division of the spinal nerves.

The theory that the spinal nerves contain two anatomically distinct sort of nerve fibres has been adopted by nearly all recent investigators to explain the fact that stimulation of these nerves may be followed either by vascular constriction or dilatation. Onimus has, however, been led to the conclusion that inhibitory phenomena resulting from the stimulation of a nerve, do not necessarily prove the existence of special inhibitory fibres in that nerve. He found, in the first place, that a single moderate irritation of the vagus, instead of arresting the heart, produced a contraction of that organ; also that when in a curarised animal the heart-beats have been reduced to forty or fifty per minute, it was possible, by irritating the vagus, or the heart itself, with induction shocks at the rate of sixty per minute, to compel the heart to contract synchronously with the electrical stimulation.

Onimus therefore concludes that when electrical irritations are applied to a nerve at a rate approach-

ing that at which the impulses follow each other along the nerve in its normal condition, the stimulation produces a state of activity in the organ to which the nerve is distributed, but that when the rate of the irritations differs too widely from that of the normal impulses, a condition of inhibition is brought about. In accordance with this theory the production of vascular dilatation by slow rhythmical irritations of a spinal nerve, as observed by Ostroumoff, depends upon an inhibition of vaso-constrictor fibres.

This theory affords no explanation of the fact that while tetanic stimulation of a freshly cut nerve causes vascular constriction, the same stimulation applied to a nerve several days after its division has the opposite effect. Moreover, the vaso-dilator fibres seem in many cases to run in channels anatomically distinct from those of the vaso-constrictor fibres. For instance, the chorda tympani seems to supply exclusively vaso-dilator, and the cervical sympathetic vaso-constrictor fibres, to the sub-maxillary gland and the tongue. To cases of this sort, the theory of Onimus is hardly applicable.

Collateral Innervation.—When vascular tonicity is restored in a region which has been separated from its nerve centres, the explanation usually given of the phenomenon is that the terminal apparatus has assumed, in the absence of impulses coming from the central nervous system, a higher degree of activity than it formerly possessed. Stricker has, however, shown that this is not the only method by which such a result may be reached. He concludes from his experiments: First, that each vascular region is supplied by many vaso-constrictor nerves, which leave the cord at different places; secondly, that after division of the cord between the lumbar and dorsal regions, the restoration of vascular tonicity in the hind limbs is effected by the vaso-constrictors, which leave the dorsal cord above the point of division. He considers it probable that these vaso-constrictors have their centres in the spinal cord (or in the brain), and that they are not of themselves too weak to maintain the tonicity of the vessels which they supply, but that after division of the cord, they gradually acquire greater power. Stricker proposes the term "collateral innervation," to express this process.—(*The Doctor*).

THE DIRECT METHOD OF ARTIFICIAL RESPIRATION.

Dr. Benjamin Howard, of New York, read a paper on this subject (*Brit. Med. Association*), in which, having pointed out what he believed to be the defects of other plans, described his own. In this, the "direct method," in order to dispose of accumulations in the stomach or chest, the patient

being turned face downward, a firm bolster beneath the epigastrium made that the highest, the mouth the lowest point. Pressure being made on the back, the object was accomplished by both ejection and drainage. The patient, stripped to his waist, being quickly turned upon his back, the bolster was placed beneath it, making again the epigastrium and anterior margins of the costal cartilages the highest points of the body, the hips, shoulders, and occiput barely resting on the ground. The patient's wrists were seized, and the utmost possible extension being secured with them crossed behind his head, they were pinned to the ground with the left hand, so as to maintain it. With the right thumb and forefinger armed with the corner of a dry pocket-handkerchief, the tip of the tongue was withdrawn and held out of the extreme right corner of the mouth. (If a boy were at hand, both wrists and tongue might be confined to his care.) In this position two-thirds of the entrance to the mouth were free. The epiglottis, by this backward curvature of the neck, was precluded from the pressure often caused by undue flexion. The head, as Nélaton urged, was dependent; the free margins of the costal cartilages were as prominent as they could be made. By crossing the wrists the latissimi dorsi were brought further into play than usual, and there was a fixed thoracic expansion, which Dr. Howard believed unattainable in any other manner. The epigastrium being the highest point, the diaphragm was neither embarrassed from pressure above nor from below. To produce respiration the operator knelt astride the patient's hips, and rested each thumb upon the corresponding costo-xiphoid ligaments, the fingers falling naturally into the lower intercostal spaces. Resting his elbows against his sides, and using his knees as a pivot, the operator threw the whole weight of his body slowly and steadily forward until his mouth nearly touched the mouth of the patient, and while one might slowly count one, two, three; then *suddenly*, by a final push, he sprang back to his first position on his knees; remain there while one might slowly count one, two; then repeat, and so on about eight or ten times a minute. The resiliency of the ribs ensured an instant rebound to the point of departure. The operation was not fatiguing, the force employed being the weight of the operator, who remained in an easy position, with alternations of complete rest. It could be practised by anybody anywhere, before or after division of the funis; in a bath, bed, or boat; and friction, electricity, insufflation, or tracheotomy could be practised simultaneously without inconvenience.—(*The Doctor*).

IMPOSITION OF INSURANCE COMPANIES.—*The American Medical Weekly* says, "One of the great evils and nuisances at the present time is

the frequent application of life insurance companies to physicians for gratuitous opinions as to the capacity and efficiency of medical men applying for the position of medical examiner. It is time for the profession to cut short this system of polite mendicancy. The information sought is solely for the benefit of the insurance company and should never be given unless a fee of at least five dollars be transmitted with the official request. Many companies assert that the information is asked of a physician for the benefit of his professional brother. This is only adding insult to injury; it is assuming that physicians can be so stupid as to believe any such fraudulent statement. Stop the nuisance; insist on the fee or refuse the information for which the company disreputably begs."

TREATMENT OF SORE-THROAT.—The local application of a saturated solution of nitrate of silver in glycerine once in ten days has been recommended in Bellevue Hospital. The theory was that an acute inflammation had a tendency to get well, whereas a chronic inflammation had no such tendency. The object was to substitute an acute for a chronic inflammation, and the inflammation caused by nitrate of silver recovered much quicker than that caused by most of the other caustics. Then use a spray or gargle of common salt-water three or four times a day. Occasionally an anti-septic should be added, and the best was said to be oil of cinnamon, wintergreen, pepper, &c. These oils all contain carbolic acid. Twenty drops of the oil of cinnamon added to a carbolic acid solution destroys the smell and rather increases its efficacy; certainly does not detract from it.

It was maintained by the visiting physician that enlargement of the bronchial glands was secondary to irritation in the throat; hence the possibility of such sore-throats becoming the starting-point of tuberculous development in the lungs must always be taken into consideration. It was also said that, in a majority of cases in which enlargement of the bronchial glands was found at *post-mortem*, it would also be found that the patient had suffered from catarrh of the nose when alive.—(*The Doctor*).

POST PARTUM HÆMORRHAGE—NEW METHOD OF USING PERCHLORIDE OF IRON.—Dr. Jas. Brisbane (*London Lancet*) in cases of post partum hæmorrhage applies to the bleeding surface of the uterus a sponge soaked with tincture of iron. The blood coagulates, the uterus contracts and the patient is out of immediate danger. At the following visit the sponge is found in the vagina. All the apparatus needed is a two ounce vial of tincture of iron and a sponge. In all the cases thus treated—four—the results were all that could be desired.—(*Detroit Med. Journal*).

DISEASES IN WHICH GALVANISM IS USEFUL.—Lead paralysis will not yield to faradization after a certain period has elapsed, though the continuous current (from a many-celled battery) will stimulate muscles to contraction when the interrupted (faradic) current fails; and after the use of the continuous current for a time the faradic current may be used successfully. In this disease, and in infantile paralysis, success may be expected if the treatment is begun early. No time must be lost.

Rheumatic and hysterical paralysis are often speedily cured by faradism, but cases of the latter kind will sometimes disappoint the physician by the liability to recurrence of the symptoms; of course moral and medical treatment will be added.

Constipation, when dependent on deficient nervous power and paralysis of the bladder, sometimes yields to the faradic current.

Amenorrhœa has been most successfully treated by many physicians by electricity of great tension, obtained either from a fractional machine (Golding Bird) or from a faradic apparatus. It is stated that just as the interrupted current stimulates the menstrual functions, so the continuous current will check menorrhagia. (There is difference of opinion on this point.) Ergot of rye is so sure and speedy an excitor of uterine contraction that electricity has not been tried by many men. In a case of accidental hemorrhage in my own practice some ergot had been given, but the contraction of the uterus not appearing strong, I used faradism with the effect of the immediate expulsion of a fœtus and placenta, and shortly after of a very large clot. With a small pocket apparatus, such as Gaiffé's, and two electrodes, one flat (carried with wash-leather) for the abdomen, and the other shaped like a rectum-bougie for the uterus, it would be most easy to accelerate a tedious labor if ergot had failed, or if there were any reason for withholding it.

Several spasmodic diseases have been treated by electricity with excellent results, and especially in the case of writer's cramp, which requires the use of a continuous current applied to the muscles affected. Which muscles are affected the operator must first discern by carefully observing the limb while the patient makes effort to write. Observations made by Dr. Poore and others show the increase of power in muscles while a galvanic current is being passed through them. Shaking palsy is said to be improved by Radcliffe's positive charge, if used in the earliest stages.

Electricity should be tried in asphyxia, as it has been relieved so many times by the employment of a faradic current passed through the scaleni and the diaphragm. The upper electrode should be small (a brass ball covered with moistened wash-leather is best); and if it is branched with two terminals, the current can be applied to both sides of the neck at once, a moistened sponge connected

with the other end of the battery being applied to the epigastrium.

Anæsthesia of hysterical origin has lately been relieved by Prof. Charcot, by placing plates of metal over the parts affected. Cases of this kind may be benefited by faradization. But it is scarcely necessary to add that local treatment alone is not likely to be of permanent use.

The results of galvanization of the seat of pain in neuralgia have been very encouraging. Ten to twenty cells of a Daniell or Leclanché battery are employed, and the sponges are applied so as to include the painful spots between them. The application should be made daily.—*Dr. Casey Coombs, in Medical Press and Circular.*

DIAGNOSIS OF HIP-DISEASES IN CHILDREN.—In examining a child suspected to have hip-disease, be careful to place him on something firm and flat; a table covered with a blanket, a leather couch, or the floor. If you use a soft bed, he will sink into it, and you will perhaps overlook even a considerable deformity. Do not be content with anything short of a thorough examination. Do not pretend to say whether a child whom you have examined with his trowsers on has or has not hip-disease. Let him be undressed, so that you can move his limbs without being hindered by his clothes. Girls past early childhood may be fully examined, if you use a shawl or a loose sheet to cover them.

1. You must look for abnormal posture of the limb or of the pelvis; 2. For stiffness of the joint; 3. Observe whether the glutei or the muscles of the thigh are wasted, or whether any, especially the adductors, are rigid; 4. Or whether there is any swelling about the joint or in the thigh or the iliac fossa; 5. Notice the relation of the trochanter to the side of the pelvis as compared with that of the opposite side; 6. Look to the length of the limb as compared with that of its fellow; 7. See how the patient walks, if he is able to do so; 8. If he have pain, learn its situation and its character.—*Howard Marsh, in British Medical Journal.*

REMEDY FOR BROMINE ACNE.—*The Doctor* says that a patient in St. Bartholomew's Hospital, who has bromine acne as a result of taking half-drachm doses of bromide of ammonium to stop her epileptic fits, has been relieved of the acne by the use of the following lotion:

R—Sulphuris precip., ℥ iij.
Spir. camphoræ, ℥ j.
Aque calcis, ad. f ℥ ij.
Fiat lotio.

The meeting of the International Medical Congress was held in Geneva, commencing September 9th. The President was Professor Vogt; the Vice-Presidents, Critchett (England), Esmarch (Germany), Schnitzler, (Austria), Hardy (France), Worlomont (Belgium), Palasciano (Italy), and Sims (America).

THE CANADA LANCET.

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TORONTO, NOV. 1, 1877.

THE CONTAGIUM VIVUM THEORY.

In view of the recent very elaborate argument of Dr. W. Roberts, F. R. S., Manchester, delivered at the British Medical Association Meeting, last August, any utterance to the contrary will be regarded as of interest. We have followed Dr. Roberts through his admirable argument and we fully sympathise with the views advanced, based as they are upon recent actual pathological discoveries. We notice, however, a letter in the number of the LANCET of September 22nd, in which an utterance of Dr. Burdon Sanderson is quoted to the following effect, "that it can scarcely be supposed that the agent is a living organism," which is the active principle in septic liquids—and this substance, we may add, has been termed by Dr. Sanderson *pyrogen*, designating it a sort of chemical poison. His conclusions are said to have been based upon observations on 25 animals. Messrs Cunningham and Lewis, in their letter before referred to, claim to base their observations upon experiments with 170 dogs, and originally published in the tenth annual report of the Sanitary Commissioner with the government of India (1874), in which it is stated that "until it can be proved that living substances can withstand immersion in a fluid at a temperature of 212° Fahr., of some minutes duration, we have no hesitation in stating that the morbid phenomena which we have observed to follow the introduction into the animal economy of strained solutions of choleraic and normal alvine discharges, and of other decomposing animal substances, are not the result of infection with a material, the poisonous properties of which are dependent on its possessing vitality."

Messrs. Cunningham and Lewis further state "it is satisfactory to find that so eminent an expon-

ent of doctrines regarding the causation of disease, as is Dr. Burdon Sanderson, has now arrived at similar conclusions, and that he has, on the present occasion submitted views for the guidance of the public health officers at home, so much in accordance with those previously arrived at, by the sister department in India; they quite agree that it would have been better for pathological science if such conclusions had not been so much overlooked, for the facts on which they are based are quite irreconcilable with the often too carelessly received assumption that the process of septic infection is dependent on the development of a living contagium." That Dr. Burdon Sanderson has come to regard the septic poison, called by him *pyrogen* as other than a living organism, is quite true; but we fear the gentlemen writing in the LANCET assume too much when they say that Dr. Burdon Sanderson's views have undergone any change necessary to bring them into harmony with their own. It is always very flattering to assume to have been the first to point out a new fact in science, but the fact of Dr. Sanderson having given the septic poison its specific name *pyrogen*, is a sufficient evidence of his recognition of its true character, Messrs. Cunningham and Lewis to the contrary notwithstanding.

The theory of minute organisms and the specific origin of disease in the last few years, has done much to give exactness to medical thought in the direction of causation and pathology of a large number of diseases hitherto but imperfectly understood. It would be impracticable to follow Dr. Roberts through the whole of his argument, hence we can only refer our readers to this most masterly elucidation of the modern theory of contagious diseases. Bacteria are minute organisms which, although small in size and simple in form, are possessed of wonderful vital endowments. Dr. Roberts associates the yeast plant and its allies, and all the numerous species and varieties of bacteria under the general designation of *saprophytes*—a term intended to include under one head all the organisms associated with the decomposition and decay of organic matter. He proceeds to show that bacteria, like other organisms, arise from pre-existing parent germs, and are the actual agents in all decomposition and putrefaction. By his experiments he substantiates the proposition that organic matter has no inherent power of generating bacteria,

and no inherent power of passing into decomposition; also that bacteria are the actual agents of decomposition, and prove that their source is always from unfiltered air or water, which, if true, suggests either some mode of protecting wounds from contact with unfiltered air, or the application of some agent capable of destroying these germs as they come in contact with a wound. The latter is the principle adopted in Prof. Lister's anti-septic method. In considering septicæmia, Dr. Roberts alludes to the poison resulting from the decomposition of animal substances known as *pyrogen*, which, when absorbed, produces fever. The patient has come under the influence of the septic poison, which it is the object of the anti-septic treatment to defend him against. Now he says, although *pyrogen*, or septic poison is the result of decomposition of animal substances, yet it is fully established that decomposition cannot take place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media.

Passing on to relapsing fever, he tells us that in 1872, Dr. Obermeier, of Berlin, discovered minute spiral organisms (*spirilla*) in the blood of patients suffering from relapsing fever, which discovery has since been fully verified by subsequent observations, and most strange "these organisms are found during the paroxysms, disappear at the crisis, and are absent during the apyrexial period." This he considers proof positive of the existence of a special disease germ, as a disturbing cause in fever. He next referred to splenic fever, concerning which he observed that the first trustworthy observation of the presence of organic forms in the infective diseases, was made in splenic fever. In 1855, Pollender discovered minute staff-shaped bacteria in this disease, which are short, straight and motionless. This discovery has been confirmed by Brauell and Davaine, Bollinger, Klebs, Tiegel, and lastly by Koch. The *bacillus anthracis* present in splenic fever has been found by Koch to be preserved and reproduced by spores, and may exist for any length of time in a very persistent manner in dwellings and other places where the disease has been.

This method of research by which cause and effect are so directly traced to each other, opens up a new era in practical medicine, and sends us off in a new direction in the wake of the pathologist, who must ever lead the van in true medical pro-

gress, for thereby we are enabled to have something like rational ideas about the nature, origin and spread of zymotic diseases—a kind of knowledge most valuable to the sanitarian as well as the physician.

THE LARYNGOGRAPH.

A method of investigation at once so accurate and reliable as the graphic has proved itself in the study of purely physical phenomena, was not likely to be overlooked in the investigation of phenomena connected with the healthy functions of the human body, and the departures therefrom in disease. Indeed, in point of minuteness and accuracy of detail the graphic method has been to the registration of the animal functions, what the polariscope has been in the analysis of the secretions, representing definitely and directly the normal as well as the morbid or abnormal functions of the human body.

The practical results of the use of the sphygmograph in the examination of the pulse, and the detection of various diseased conditions, especially heart affections, has led to discoveries of great practical and theoretical interest and importance, so that by charts produced any skilled observer could read at a glance the nature of the affection, the stage of development and the degree of danger existing. A similar line of thought has been directed to the development of a means of applying the graphic plan to the observation of affections of the throat and lungs, resulting in the production of the Laryngograph, intended to indicate the influence of these diseases upon the quality of the voice. The apparatus was first introduced as "Koenig's Flammometer," but was afterwards modified so as to be capable of responding to the slightest variations in sound, making it applicable to the study of the normal conditions of the human voice. How far it may be able to serve the profession, in the early diagnosis of affections of the throat and lungs, remains to be discovered.

It is composed of a gas-jet, burning with a steady flame, a mouthpiece terminating in a lenticular lens or capsulo, and a large cube, whose vertical surfaces are covered with mirrors, and which is revolved about its vertical axis. The capsule is divided into two compartments by a very thin, tense, and impermeable rubber membrane. In one of these compartments the sounding-tube terminates, while

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Other serves as a passage-way for the gas from the conducting-tube to the jet at which it is burned. The principle of its action is as follows:—On singing or speaking into this mouthpiece, sound-waves are produced by the alternate condensation and rarefaction of the air within the tube; the rubber membrane acquires a corresponding rate of vibration, and so modifies continuously the rapidity of the delivery of the gas to the burner, as to cause the flame to leap up and down in unison with the sound transmitted.

As the prismatic mirror is rotated, the motion of the flame, however slight, is rendered distinctly visible, which, by persistence of vision, the image of the flame is spread out into a broad, serrated band of light. The serrations vary with the character of the tone produced, as well as the degree of the diseased condition of the vocal chords. In the case of disease, the difference in the appearance of the image becomes so striking, that a skilled observer can form a correct idea of the actual state of the vocal organs. While the patient speaks or sings through the mouth-pipe, the physician, standing behind, observes carefully the changes produced in the figure reflected in the mirror. In a moderate degree of hoarseness, the serrations are but imperfectly formed, and are not regular and constant in appearance. The tongues of light are less clearly cut and shorter, in consequence of the range of vibration of the vocal chords being much smaller. In a severe degree of hoarseness, tending the formation of tubercles in the lungs, syphilis, and chronic inflammation, with thickening or partial destruction of the vocal chords, the serrations are very irregular, owing to the partial immobility of the latter.

It is claimed that with a proper delicate adjustment of the instrument, the difference between a fine, well-cultivated voice and a defective one would be distinctly manifest in "the clear, regular and well-defined cut of the teeth of light in the case of the former, with every fluctuation in the intensity of the notes being distinctly visible."

A wood-cut which appears in the September number of the *Scientific American*, represents the apparatus in operation, and will convey a more accurate idea than any pen-picture can possibly do.

This method of diagnosis is as yet in its infancy, and the extent of its applicability cannot be surmised; but we may safely expect that it will fur-

nish the cue so still greater achievements in the diagnosis of throat and lung affections especially. The additional development of this arrangement, so as to attach to it a sensitive paper on which to imprint a permanent photograph of the flame picture, would add immeasurably to its general utility, and there cannot be a doubt but that ingenuity will accomplish this improvement.

BRITISH VACCINATION ACT.

We have been favoured by Sir Sidney Waterlow, M.P., for Maidstone, with a copy of the amended Vaccination Act, 34th and 35th Victoria of the Imperial Parliament, many of the provisions of which, would form the basis for an amended Act in the Dominion of Canada. It must long have been patent to every member of our profession that the existing Act is inoperative and almost useless, and with the large representation of medical men in the House, we have a right to expect that from some of them, a Bill on this subject should be introduced at the next session. The division of every Township into school sections will greatly facilitate enquiries into the number of unvaccinated, if proper medical officers are appointed for that purpose. The supply of lymph should, as in England, be under the supervision of a Government Board, so as to insure immunity from impurities. It is a matter for wonder, that in the present day, when so much more attention is paid to the prevention of disease than formerly, that vaccination should be so much neglected, more particularly in this Dominion, drawing annually from all parts of Europe, a large amount of poor settlers, exposed in the transit to the chances of infection. Although vaccination is sometimes powerless to protect us from variola, it always diminishes the gravity of the malady. This property which Jenner and his first followers did not even suspect, is thoroughly proved by the various facts which have been accumulated. In one of the most terrible epidemics of variola that has taken place in Europe since the discovery of vaccination—that of Marseilles in 1828, more than ten thousand persons were attacked; of these, two thousand only, had been vaccinated, and of that number, only forty-five died; whereas, one thousand five hundred of the eight thousand who had not been vaccinated, were carried off by the pesti-

lence. (See M. Serres report Academy of Sciences.) Vaccine matter evidently loses part of its efficacy in passing from arm to arm, it is therefore desirable to renew it as often as possible. Comparatively recent discoveries have proved that we can renew it at will by vaccinating heifers, the lymph thus obtained being more powerful, and less open to objection than from the long transmitted Jennerian virus.

The propriety of re-vaccination is now fully established. In Germany the various governments have paid great attention to the subject, owing the circumstances of epidemics of variola having manifested themselves with a severity to which we had become quite unaccustomed since the introduction of vaccination. Re-vaccination has been consequently resorted to on an extended scale, having the effect of arresting the epidemics. Thus in Wurtemberg, forty-two thousand persons who had been re-vaccinated, only presented eight cases of varioloid; whereas, one-third of the cases of variola have occurred in persons vaccinated only in infancy. It is principally between the ages of fourteen and thirty-five that vaccinated persons are most liable to be attacked by variola. When there is an epidemic, the danger commences earlier, and children of nine or ten years of age may be seized. Prudence, therefore, requires that under ordinary circumstances, re-vaccination should be performed at the age of fourteen or fifteen, and even earlier, if within the radius of an epidemic.

PHOSPHO-NUTRITINE AND MILK OF MAGNESIA.
—Among the many additions that have recently been made to the list of new remedies, there are few that merit more fully the approbation of the profession than that of *Phospho-Nutritine*, a new and important preparation of the Soluble Wheat Phosphates, and the Milk of Magnesia.

The importance of the first named will readily be noted by the following extracts from well known authorities.

Of the *Soluble Wheat Phosphates* Prof. Grace Calvert says: "The phosphates contained in wheat are soluble; they are not combined with organic matter, but are in a free condition; further, the greatest part are those of potash and magnesia."

Prop. J. V. Liebig remarks: "The significance

of the nutritive salts of our food (that is, the phosphates) is sufficiently well known to our physiologist; it is known that, without their co-operation, the other constituents of our food are incapable of affording nourishment." As a remedial agent, the Phospho-Nutritine will be found to differ from ordinary medicines called or containing phosphates, inasmuch as these are mainly phosphates of lime and soda—the least of importance in supplying the daily waste of our organs—while in this solution, the phosphates of Potash and Magnesia greatly predominate, and the superiority which this difference gives, must be apparent to any intelligent mind and instantly recognized by the Faculty.

Of the *Milk of Magnesia* Prof. Gisborne says: "It has a smooth and milk-like taste, is the best of all antacids, and whether used for children or adults, physicians will find that this hydrate possesses all the medicinal properties of magnesia in a much higher degree than the calcined and carbonated preparations of that important alkali.

Physicians wishing to try either of these remedies, may obtain a supply from Devins & Bolton, Montreal.

NOVEL EXPERIMENT.—Dr. Fuller, of Montreal, has conceived the novel idea of trephining out portions of the skull of an idiotic child of two years old, to allow the expansion of the brain, and thereby afford the faculties an opportunity of developing, which had not been previously the case. Since the operation there has been a marked improvement in the mental condition, and a paralysis of the arm, with general coldness of extremities has been quite remedied. The faculties of intelligence have brightened up considerably; and, encouraged thereby, it is Dr. Fuller's intention to take out another piece of skull, and note the result.

NEW INSTRUMENT.—We were lately shown a very ingenious combination of Sim's and North's Speculum, manufactured by Mr. Gross, of Montreal, which is admirably adapted to the necessities of operators. Every hospital, at least, should be possessed of one, as it will be found exceedingly convenient in the operation for vaginal fistula. Mr. Gross has very much enlarged his works of late, affording him increased facilities for meeting the ever increasing demand for surgical instruments and appliances.

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FŒTICIDE.—In his address before the Canada Medical Association, Dr. Hingston, in alluding to the crime of foeticide, made the following remarks:—"Who amongst us has not been appealed to by married women in fashionable society to thwart the designs of Providence in their regard; and who amongst us does not know the earnestness of that appeal, where delicate health, narrow means, the claims of society, the displeasure of a husband, are urged most tearfully in support of an undesired maternity by those whom we would be disposed to befriend? What young man amongst us who has not been obliged to reject a proffered bribe where his impecuniosity seemed to give hope to the would-be foeticide? What practitioner, who has not found his advice "not to kill" spurned by one who looked to him for help in ridding her of the fruit she was bearing? Some years ago he was present at an interesting meeting of physicians at Malone, N. Y., and the aged president dwelt, among other things, on this topic. He told us of a married lady, one of his best patients, who wished to be relieved, at an early period of gestation, of the legitimate fruit she was bearing. He expostulated, coaxed, and at length, threatened. She left his office, indignant at his want of complacence, and although he had attended her and her family for years previously, she never afterward went near him. But to continue his own story: 'I had my own satisfaction, for of a fine afternoon, a young lady of eighteen summers, full of life, and health, and beauty, might be seen passing my window, little dreaming how much she was indebted to the humble old man in his office near by for the continuance of the life she now so much enjoyed.'"

SUBSTITUTE FOR CHLOROFORM.—Dr. Richardson read a paper at the British Association on the uses of various ethers and alcohols in medicine and surgery. He finds that it is becoming possible to predict the action of new compounds with great exactness, "from their chemical composition, and also, by modifying composition, to remove sources of inconvenience or of danger. By this line of work, he hopes to arrive ultimately at an agent that will supersede chloroform and its analogues, and that will suspend sensation without danger to life. In this direction he mentions "trichlylic ether," a new anæsthetic substance, from which excellent results may be expected.

AMBULANCES IN CONNECTION WITH HOSPITALS.—Some years ago the Board of Commissioners of Charities and Correction for New York, established a reception hospital in the City Hall Park, known as the Park Hospital, where urgent cases of disease or accident could be received and attended to until they could be removed up town to the Bellevue Hospital. In connection with this temporary hospital, a conveyance or ambulance for carrying the sick was employed; this was the commencement of the ambulance system in New York. Bellevue Hospital has now six ambulances ready to start at a moment's notice to any part of the city, and is also connected by wires with all the police and fire-alarm stations in the city. The New York hospital has two very handsome ambulances in connection with that Institution, and lately the Roosevelt has also provided itself with an ambulance. A surgeon is sent out from the hospital with each ambulance to look after the patient and perform any duty that may be necessary. The new ambulance of the New York hospital cost \$800; those of the Bellevue, \$600 each, and the one recently purchased for the Roosevelt, cost only \$350, and is quite equal to any of the others.

BICARBONATE OF SODA IN BURNS.—Dr. Waters, of Salem, states that bicarbonate of soda, or any other alkali, in neutral form, will afford instantaneous relief from pain in the severest burns or scalds, and will cure such injuries in a few hours. At a late meeting of the Massachusetts Dental Society, he performed the following experiment. Dipping a sponge into boiling water, the Doctor squeezed it over his right wrist, producing a severe scald around his arm two inches in width. Bicarbonate of soda was at once dusted over the surface, a wet cloth applied, and the pain, the experimenter stated, was almost instantly relieved. Although the wound was of a nature to be open and painful for a considerable time, on the day following the single application of the soda, the less injured portion was practically healed, only a slight discoloration of the flesh being perceptible.

LONDON HOSPITAL MEDICAL COLLEGE.—A most successful "conversazione" was held at the opening of the winter session of the London Hospital Medical College, Eng. It was largely attended. A number of Canadian students are now attending this school.

ADVERTISING OPERATIONS.—We are constantly receiving notices clipped from newspapers in different parts of the country, containing accounts of operations performed by medical men. We do not suppose that any of these gentlemen are guilty of describing their own operations; yet we are at a loss to know how it is that many surgeons, both in cities and in the country, who stand deservedly high, in public and professional estimation, are never noticed by the members of the fourth estate, although they sometimes perform dozens of operations in the course of a twelvemonth? The code of medical ethics by which the regular profession is governed in this country, and also in the United States, is very explicit on this point. The clause referring to this matter, we quote as follows:—

“It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.”

ACTION OF SUNLIGHT ON VIRUS.—We have somewhere seen a statement crediting a distinguished English physician with having made some interesting experiments on the power of sunshine to destroy poison. Having obtained some poison from the *Cobra* on ivory points, from London, he exposed them in a glass bottle to the sunlight; some of the points were protected by a paper wrapping, while a number were fully exposed. On the latter, or those having the benefit of the full sunlight this most deadly poison is said to have soon become harmless, while those protected by the wrapping retained their poison in all its fatal activity. This result agrees with the general experience and observation of those making use of vaccine virus on ivory points to any great extent, a very short exposure to the sunlight being sufficient to destroy their efficacy by neutralizing the vaccine.

SENSIBLE REMARKS.—An eminent physician at Dartmouth College, addressing the graduating Medical Class, on one occasion, began by remarking that “the science of medicine has been and is now a growth, and consequently has not yet reached perfection.” The main trouble with medicine is that man was born to die, not merely of old age, but of various diseases, at various stages of life. Recovery from an illness depends upon several conditions, with some of which the medical man who is called in, has nothing to do. He may be sent for too tardily. His advice may not be followed, and his prescriptions may be negligently dispensed, or altogether dispensed with. He cannot keep watch and ward by every bedside, to prevent nurses from dosing their victims into the grave. And, more than all, however much he may know of theory and practice, there will remain a great many things of which he is ignorant, and which can only be learned by life-long observation and experience, and which may be termed the unwritten language of medicine. His anxieties will necessarily at times be great.

THEORY OF CONTAGION.—If contagion consists, as claimed by Tyndall, of definite particles, sometimes floating in gas, or in the air, or in the liquids to drink; and that like organic seeds in the soil, the particles multiply themselves indefinitely in suitable media, the great probability being that the disease-producing facilities are living things—gaseous or liquid,—but solid, the treatment of the case will resolve itself sooner or later into a kind of germicide within and without the body—within the fluids and secretions of the body—without the noxious elements that surround it.—*President's Address, Can. Med. Ass'n.*

APPOINTMENTS.—Dr. Burland has been appointed House Surgeon to the Montreal General Hospital, and Dr. Bell assistant Surgeon. Mr. Matthews Duncan, of Edinburgh, has received an appointment at St. Bartholomew's Hospital, London—the post vacated by Dr. Greenhalgh. Mr. McLeod, of Glasgow, has been appointed Surgeon to the Queen in Scotland, in place of Mr. Leitch. H. P. Yeomans, M.D., of Mount Forrest, to be Associate Coroner for the County of Wellington. T. S. Walton, M.D., of Parry Sound, to be Associate Coroner for the District of Parry Sound.

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THE BOGUS DIPLOMA BUSINESS.—The manufacture and sale of bogus diplomas, of the American University of Philadelphia, is still being attempted, notwithstanding the fact that the Legislature of Pennsylvania has annulled the charter of that Institution. A short time ago 500 engrossed diplomas in blank, addressed to Dr. Buchanan, were seized by the Customs authorities in Philadelphia. They had been shipped to Liverpool, but something having interfered with preconcerted plans, they were returned to the consignor.

PERSONAL.—Dr. Eccles, of Arkona, has been on an extended tour through Great Britain during the past year. He remained some time in London, and successfully passed the examination for the M.R.C.S., and was admitted a member of the College. A letter written by him (Sept. 19th), descriptive of Edinburgh and its surroundings, appeared in the *Lambton Advocate* of the 19th ult.

ABORTIVE TREATMENT OF BUBOES.—Buboes may be prevented from suppurating and entirely removed, by promoting absorption through the aid of gentle pressure. This may be done by using an ordinary truss, and bathing frequently with Goulard's extract.

Toronto Hospital Reports.

TYPHOID FEVER—PERFORATION OF THE BOWEL.

S. N. æt. 28 years, was admitted into the hospital on the 4th of October, '77. Family history good. He had typhoid symptoms, and had been suffering from diarrhœa for about three weeks prior to his admission. There was tenderness in both iliac regions; anxious and pinched expression of countenance; pulse about 120; skin hot and dry. The fever seemed to be very mild, and the temperature was not taken; tongue coated but not dry. He was put upon quinine and nitro-muriatic acid, with astringents to restrain the diarrhœa. The diet consisted chiefly of eggs and milk. Stimulants were not used. On the 7th he complained of great pain in the abdomen, increased on the slightest pressure, and passed some blood by the bowels. Anodynes were administered; but he rapidly sank into a state of collapse, and died on the morning of the 8th.

Post mortem 8 hours after death. On opening

the chest, the heart appeared somewhat flabby, and was filled with dark fluid blood. There were old adhesions between the lungs and pleura costalis, especially on the left side. On opening the abdomen, it was found to contain a considerable quantity of grumous-looking serum, flakes of lymph, and some pus. The intestines and greater omentum were very much congested and softened, and upon a more careful examination, an opening was found in the ileum near its junction with the cæcum. Upon slitting open the intestines and examining the perforation, it was found to be surrounded by an ulcer an inch and a half in diameter, which was thickened at the margins and thinner towards the centre. Other portions, both above and below, were the seat of ulceration; but none were so thin as the former. The above case was interesting as showing that danger and sudden death may arise in cases in which the fever is very mild, and where disastrous results are entirely unlooked for.

INGUINAL HERNIA IN A FEMALE.

Mrs. E., æt. 55, native of England, of healthy parents, was admitted into the Hospital on the 9th Sept. She complained of a rupture "in her side," as she called it, and said that it came down and became large and painful at times, and that she was unable to put it back. The hernia was replaced by the assistant house-surgeon, and the patient was ordered to keep her bed until a truss could be obtained. A day or two elapsed during which time the bowels came down repeatedly after attacks of coughing. On examination the hernia was discovered to be right inguinal direct—a form very uncommon in women. She states that the rupture took place after a severe fit of vomiting, when she was pregnant with her second child. It was treated at the time by some sort of support and after her confinement it was better, but it troubled her more or less during gestation ever after, and within the last four years it has become very troublesome. A well fitting ordinary truss has been applied such as is worn by males for inguinal hernia, and she is now able to go about without any inconvenience.

VESICAL CALCULUS.—LITHOTRITY.

Mr. McN., æt. 70, native of Ireland, was admitted into the Hospital on the 20th, of August suffering from stricture of the urethra. Upon a

careful examination of the symptoms, the presence of stone was also suspected, and a very small sound (the largest that could be introduced owing to the stricture) was passed with difficulty. The suspicion was confirmed; a small stone was found to be present. The patient was at once put under preparatory treatment. The urethra was gradually dilated until a No. 14 catheter could be readily introduced. This required a good deal of time and patience, besides the splitting of one of the strictures near the anterior part of the urethra. As soon as the lithotrite could be introduced, the operation was performed. The calculus was found to be about $1\frac{1}{4}$ inches in diameter, very soft and friable, and readily gave way. The bladder was subsequently well washed out, and the case is progressing favourably.

Books and Pamphlets.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE, Vol. XVI., on Diseases of the Locomotive Apparatus and General Anomalies of Nutrition; by Prof. Von Ziemssen. New York: Wm. Wood & Co.

We are in receipt of another volume of this excellent work, which should grace the shelves of every practitioner anxious to keep pace with the advanced medical literature of the age. This volume like some that have preceded it, has been written by several authors: Prof. H. Senator, of Berlin, discusses "Rheumatic effusions of the joints and muscles;" Prof. E. Seitz, of Geissen, "Disorders caused by catching cold;" Prof. Immermann, of Basil, "General disorders of nutrition;" and Prof. Birch Hirschfeld, of Dresden, "Scrofulosis and affections of the lymphatic glands." Each writer exhausts every minutæ of his subject, and presents the reader, in addition to a judicious compilation, a valuable record of his own experience. If we selected portions of these various theses, we should be doing injustice to the work as a whole, by unravelling the thread by which the compiled materials are held together. We cannot do better therefore, than strongly recommend the work as the most exhaustive translation into the English language on the various subjects on which it treats. The work will be extended to two volumes more than was at first contemplated, making in all seventeen. The fol-

lowing five volumes are yet to appear, Vol. XIV. on "Neurosis," in Dec. '77. Vol. XIII., "Diseases of the spinal cord," in March, '78. Vol. XVII., on "Blood diseases," in June, '78. Vol. VIII., on "Diseases of the abdominal viscera," in Sept. '78, and Vol. IX., on "Skin diseases," in Dec. '78.

PHYSICIAN'S VISITING LIST, by H. C. Wood, M.D. Philadelphia: J. A. Lippincott & Co.

This List presents many features which are peculiar to itself, and which will be found very convenient. In addition to the ordinary space for the name, there is also one for the address of the patient. It contains an erasable tablet, list of medicines and doses, diagrams of motor points, muscles for applying electricity, blanks for "accounts rendered," nurses' addresses, obstetric, engagement, &c., &c.

THE PHYSICIAN'S VISITING LIST FOR 1878. Philadelphia: Lindsay & Blakiston.

The above mentioned Visiting List has been published regularly for the last twenty-seven years. It is now offered to the profession in a most perfect form, such slight improvements having been made every year as experience seemed to suggest. We give the work our warmest commendation.

AMYL-NITRITE IN WHOOPING COUGH.—1 to 2 minims repeated every 2, 3, or 4 hours, according to the age of the child and the urgency of the symptoms. No antagonism exists between the remedy and quinine.

The annual death-rate of Edinburgh is about 15 per thousand.

Births, Marriages and Deaths.

On the 25th September, in Toronto, Mrs. McCollum, of a son.

On the 16th ult., the wife of Dr. Terrence, Toronto, of a daughter.

At Stratford, on the 10th ult., J. R. Hamlin Esq., M.D., to Sarah Leonora, eldest daughter of Mr. A. B. Orr.