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U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
171 Church Street Toronto, Corresponding Editor.

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Selections: Medicine.

ETHYLIZATION:

THE ANÆSTHETIC USE OF THE BROMIDE OF ETHYL.

BY DR. LEVIS, PHILADELPHIA.

My observations of the anæsthetic action of the bromide of ethyl, which commenced in April, 1879, have been directed to its physiological action in the human subject, to its practical application in the relief of human suffering, and to its value as compared with other anæsthetics. Every administration has been carefully watched and studied, and records of its phenomena have been made as they were observed. From such basis of experience, I present some facts which may at least help toward a proper estimate and appreciation of its therapeutic value.

Since the publication of my recent articles on the subject in the *Philadelphia Medical Times*, my continued observations have been generally confirmatory of the statements then made. I now summarize the deductions from my entire experience in the anæsthetic use of the bromide of ethyl, and present my convictions in regard to its comparative value.

The terms bromide of ethyl and hydrobromic ether are arbitrarily applied by chemists, in accordance with differing chemical nomenclature; but, for distinctiveness, and without reference to chemical accuracy, I prefer the former expression. I prefer to give to the substance the generic name of ethyl, and speak of ethylizing and ethylation on the same grounds as, by common consent, the words ether and etherization are applied to sulphuric ether.

The decided characteristics of the administra-

tion are its rapidity of action and the quickness of recovery from its impression. I have produced complete anæsthesia in cases of young children in less than one minute. The longest period required to produce the anæsthetic state in adults has not exceeded five minutes.

The ethylized patient recovers much more rapidly than is the case with chloroform or ether. Intellection and muscular co-ordination are regained very soon after the inhalation has ceased. In some instances these functions return as quickly as after the administration of the nitrous oxide gas, and frequently the patient, on awakening, is able to at once stand erect and to walk.

If the anæsthetic impression be slowly effected, a brief period of intellectual excitement, associated with muscular action or rigidity, may occasionally be manifested; but violent emotion and struggling, if they should occur, are more moderate, brief, and transient than in the early stage of the anæsthesia of ether or chloroform. The stage of excitement can generally be avoided by making a rapid impression of the anæsthetic. I have observed that persons accustomed to the habitual use of alcoholic stimulants are less readily impressible by anæsthetics generally, and with them a stage of excitement is apt to precede anæsthesia. In this class of subjects narcotics act as stimulants, and the same holds true with regard to anæsthetics.

As anæsthesia is developed, the circulation generally shows evidences of moderate excitement, as indicated by some increase in the rapidity of action of the heart, and the pulse evinces greater general arterial tension. The face of the patient usually become brightly flushed, and, when anæsthesia is profound, the forehead and the general surface are apt to be moist with sweat.

In these respects the anæsthesia of the bromide of ethyl differs from the ordinary pallor of countenance and the usual check of skin-transudation of chloroforming.

The physiological action of the bromide of ethyl does not incline to the dangers of cerebral anemia and cardiac syncope, which sometimes occur in chloroforming, and, in my experience, no tendencies in such directions have seemed to threaten.

The respiration is slightly increased in frequency until anæsthesia becomes complete, when it assumes the characteristics of normal sleep. The decided indication of the attainment of very profound anæsthesia is the slowing of the patient's breathing, as in ordinary sleep, which becomes easy, long, and free. The irritation of the respiratory passages, which often inconveniences the inhalation of ether, does not occur in any degree with the bromide of ethyl. If brought into contact with the skin of the face, it is less irritating than chloroform.

I do not recognize any ordinary after-effects on awakening from the anæsthesia of bromide of ethyl, the patient speedily returning to his normal sensations and usual condition with but a drowsy sense continuing for a brief time. In my own person, the whole impression is more agreeable than is that of ether or chloroform; and others who have thus tried comparatively the different anæsthetics have expressed to me the same appreciation.

The liability to nausea and vomiting is less than after ether and chloroform, but it is not entirely avoided. Occasionally vomiting will occur when food has been but recently taken, and I have in a few instances observed decided nausea and retching when no food was in the stomach, and merely some frothy mucus was ejected. The quick relief from the anæsthetic impression of the bromide of ethyl seems to render less likely the long continuance of the distressing nausea and vomiting which are liable to follow etherization and chloroforming. It should be borne in mind that the fully anæsthetized patient never vomits, and the manifestation of nausea during the continuance of the inhalation is the indication for making the impression more profound. When vomiting occurs and persists after anæsthesia passes off, it can

best be relieved by giving to the patient small pieces of ice to swallow, or a full draught of ice-water.

The quantity of the bromide of ethyl required to produce anæsthesia varies with individual susceptibility and with the manner of using it. Its rapid evaporation causes much loss by diffusion in the atmosphere, but this waste may, with a view to economy, be to some extent avoided. I am in the habit of administering it by pouring two or three fluidrachms on several folds of woven lint, or on a small, soft linen handkerchief, over which is pinned a napkin, folded large enough to cover the entire face of the patient. Anæsthesia, in my experience, more quickly obtained without the intervention of excitement, if light is excluded, and the temptation to look about avoided, by covering the eyes with a napkin. This plan seems to me to be the simplest and the best, and I trust that the anæsthetic use of the bromide of ethyl may never become complicated or embarrassed by any forms of the absurd contrivances called inhalers. Such apparatus implies that all individuals are, under all circumstances, to be dosed with anæsthetics in the same mechanical manner. Nothing can be gained by any mechanical device for the purpose, excepting economy in the use of the anæsthetic, and some of the numerous devices would rather tend to wastefulness. A simple napkin or piece of lint, or both together, which absorb and gradually exhale the vapour, are perfectly effective and controllable as the means of administration, and nothing more can be required.

In commencing the inhalation of the bromide of ethyl, I prefer always to make a rapid and decided impression, with the lint and napkin held closely over the nose and mouth of the patient. It is the object to attain anæsthesia without the intervention of mental and muscular excitement. In the administration of another anæsthetic—the nitrous oxide gas—we are familiar with the uncontrollable excitement liable to be produced by slowly inhaling small quantities; and we know as well what profound anæsthesia is induced by rapid and impressive doses of the gas. In the method which I prefer, of administering the bromide of ethyl from a piece of folded lint and a napkin, it does not seem

possible to exclude so much atmosphere as to cause danger from asphyxia.

In my experience the entire quantity of ethyl consumed in effecting and continuing anæsthesia in any single case has varied from one fluidrachm used in a very brief period, to eleven drachms required in maintaining anæsthesia through an operative procedure of forty minutes' duration.

After having tranquillized the patient's mind by assurances of freedom from suffering and danger, I direct him to inspire and expire, for a time, as deeply as possible. The expirations should be so complete that the residuary air is expelled from the lungs. While continuing to thus breathe deeply, the inhalation is commenced.

This preliminary drill I regard as important, and it will always facilitate the proper production of anæsthesia. Until complete anæsthesia is effected, there should not be allowed a moment during which the patient does not inhale the vapour, and as the anæsthetic becomes exhausted it should be quickly replenished.

It is proper that the administrator of any anæsthetic should be able to recognize and be satisfied with the simple production of the anæsthetic state—insensibility to pain—without pushing the inhalation, as is often through ignorance or carelessness done, to a dangerously toxic condition. The best indication of complete anæsthesia is the change in the breathing of the patient to that of ordinary deep sleep. When anæsthesia becomes profound, there may be a more or less snoring or puffing sound, due to relaxation of the palatine and buccal muscles. With such manifestations the administration should cease, or be very moderately continued. It should be borne in mind that all anæsthetics become eventually, by continuance, depressing agents, and their administration should not be viewed as a matter of trifling responsibility, and entrusted to careless or inexperienced persons. The administrator should exclusively direct his attention to what he is entrusted with, regarding only the condition of the patient, and not observing the operative proceeding. I have witnessed an ignorant and heedless assistant resting his elbows on the chest of a patient, whose laboured respiration and livid, turgid face showed threatening asphyxia, while the administrator gazed abstractedly at a surgical procedure taking place at the groin.

I cannot too much impress the greater importance of observation and reliance on the state of the respiration, rather than of the circulation, as an index of the condition of the ethylized patient.

The patient's position should, if possible, be that of dorsal recumbency, with the head slightly elevated and flexed. It is well to remember that in the sitting or erect positions there may be more danger to very feeble patients from syncope. During muscular excitement the neck should not be allowed to be forcibly curved backward, as is the tendency, producing tension on the ante-tracheal muscles and impeding venous return. The chest and abdomen should be free from the mechanical restraint of tight clothing, so that full and deep inspiration may not be impeded. If it should be necessary to have the patient in the prone position, the administration requires watchfulness lest respiration should, by pressure, become embarrassed.

When practicable, the taking of solid food should be avoided by a patient for four hours, and liquid food for three hours, before the administration of any anæsthetic. If the patient's condition should be feeble, alcoholic stimulants or ammonia may in advance be given. When, in an emergency, anæsthesia must be induced very soon after a meal, the act of vomiting should be carefully watched, and the patient's trunk so held that ejected substances may not gravitate into the larynx.

No fatal case referrible to the action of the bromide of ethyl has occurred, nor even in the now large number of administrations, as far as I am aware, have there been any dangerous or threatening symptoms; yet, just as in what ought to be the almost invariably safe administration of sulphuric ether, death may occur, but it will, most probably, be in cases in which, if proper care had been observed, the fatal result would have been avoided. Its action does not seem insidious or uncertain; but, judging from the careless and bungling manner in which other anæsthetics are sometimes administered by incompetent persons, I think that so agreeable and unirritating an agent as the bromide of ethyl is liable to be ignorantly, heedlessly, and inordinately used, and its usual harmless and beneficent anæsthesia pushed to toxic conditions and even death.

In the minor operations of surgery, occupying but a very brief time, and of but momentary pain, it is sufficient evidence of the production of anæsthesia when the patient does not respond to a sudden call by the voice. The more profound state of anæsthesia is evinced by insensibility of the surface of the conjunctiva to the touch of the finger, and by change in the breathing of the patient to that of normal deep sleep. The occurrence during full anæsthesia of dilatation of the pupils and of general sweating, are frequent but not invariable phenomena of ethylization.

The bromide of ethyl, as most recently produced by our best chemists, differs materially in some of its sensible properties from that which has generally been described by chemical writers, and from that which I first had the opportunity of using.

Its odour is characteristic, but is less decided than that of ether or chloroform, and to most persons it is more agreeable. The article I now use leaves less evidence on the breath of the patient, is soon dissipated from the apartment, and the odour does not remain, as does that of ether, on the clothing of the operator and his assistants.

The bromide of ethyl is said to be liable to chemical change by prolonged exposure to light; but I have kept daily, for more than a month, exposed to direct sunlight, a specimen made by Wyeth & Bro., of this city, and can perceive no evidence of change in either its ordinary properties or its anæsthetic action.

The bromide of ethyl may always be used without danger, in the closest proximity to lights and to the actual cautery, as its vapour is not inflammable. If a few drops be poured into a tumbler or other deep vessel, a lighted taper or a match is at once extinguished if immersed in the vapour.

I have used the bromide of ethyl in the surgery of two large general hospitals and in private surgical practice, under the most varied circumstances which could be required to test the merits of an anæsthetic. In my use of it in the most abnormal conditions of debility and shock of injury, in capital operations, through protracted periods of administration, in patients from early infancy to extreme old age, it has always been satisfactory and free from manifestations of danger. I express my conviction that it is practically the best anæsthetic known to the profession.

DIABETES AND SEPSIS.

W. ROSER.

Diabetes often causes obscure septic processes, which require regular diet and omission of all hydrocarbons rather than disinfection with carbolic acid.

Up to the present time three prejudices have often frustrated the diagnosis: 1. The supposed incompatibility of diabetes with apparent health. 2. The fashion of believing the cause of all gangrenous ulcers to be bacteria. 3. The supposed incurability of diabetes.

Cases are related tending to refute the above objections. A patient, C. R., æt. 42, with a progressive gangrenous phlegmasia of the foot. Diabetes was found to be present; an animal diet was insisted upon with quick improvement. The sugar was greatly reduced, and finally a resection performed; the wound healed kindly, and the patient was discharged. The animal diet was continued, and the patient remained well. A number of similar cases have been observed by the writer shortly before death, in which a timely diagnosis might have saved life.

Twenty years ago, Nélaton had a case of a prominent gentleman, 60 years of age, short of stature, and plethoric, who received a small wound in the leg. Instead of healing, the wound changed to an ulcer. In spite of varied treatment, the ulceration spread. Nélaton was consulted. An amputation was proposed, but Nélaton opposed it. Suspecting diabetes, which urinalysis proved to be present, anti-diabetic treatment was commenced, but too late; the patient died.

Professor Marchal (de Calvi), in 1853, was the first to mention the fact of Diabetic Sepsis, and enumerates 133 cases. He also points out that these complications attack, by preference, robust and well-nourished persons of middle age. Peyrot, in 1878, treated of the curability of these diabetic accidents. This question has of late been often brought up at the Société de Chirurgie of Paris. German surgeons have neglected, and the English text-books are silent on this topic.

Twenty years ago the writer amputated the foot of a fat merchant, 58 years of age, for supposed senile gangrene. The patient died from progressive gangrene. Since there was no other

cause for this, he considers it a case of unrecognized diabetes. Again, a mammary cancer was extirpated, progressive phlegmasia ensued, which caused death. Dr. A. Henry mentions a similar case where death ensued from pulmonary œdema. Both were probably cases of diabetes.

Professor A. Fischer recommended carbolic acid internally, to combat the diabetes before operating, and mentions cases in support of such treatment.

Such cases force upon us the following questions: Is it permitted to operate upon a diabetic patient? Is it indicated to postpone an operation; and is it really of such importance that diabetes should be diagnosed before operating? In diabetes, cataract operations often succeed. But in most cases Verneuil disadvises operation, or insists on anti-diabetic treatment prior to operating.

Other skin affections, such as eczema, pemphigus, &c., sometimes are caused by diabetes. In the diagnosis of diabetes in surgical cases, it must be borne in mind that fasting for a few days causes the sugar to disappear from the urine. Gangrene of the lung is regarded by Rager as a frequent termination of diabetes. This form of pulmonary gangrene is not mentioned by the latest German writers, although Griesinger spoke about it in 1859. Sudden death may occur in diabetes, and embarrass the surgeon. Serious hemorrhage also occasionally occurs, at times becoming uncontrollable, and is apparently a parenchymatous oozing. A case of diabetic gangrenous phlegmasia of the leg was incised on account of emphysema. A large number of odourless air bubbles exuded. Could these have been carbonic acid, derived from the fermentation of saccharine serum in the areolar tissue?—*Chicago Medical Gazette.*

COLD-WATER PILLOW.—William Woodward, M.D., writes, in the *British Medical Journal*: "In several cases lately I have had recourse to the use of a cold-water pillow, with very marked benefit, where headache, heat of head, and similar symptoms have prevailed. Any one who has experienced the vain attempt to find any permanent cool place in a feather pillow when desired will at once appreciate the above expedient, which, however, may not occur to every one at the required time."

CUPRIC TEST PELLETS.*

BY JOS. S. NEFF, A.M., M.D.,

Lecturer on Urinary Pathology at the Jefferson Medical College, Philadelphia, etc.

At a meeting of the Clinical Society of London, held January 23rd, 1880, Dr. Pavy introduced to the notice of the profession a new qualitative test for sugar; strictly speaking, a new form of an old test, for it was nothing more than Fehling's solution transferred into a solid form; but the method of obtaining this form was not explained.

As is well known, of all the tests for sugar in the urine the copper tests are the best, at least when delicacy and precision are aimed at. The best of these are Fehling's or Pavy's solutions, which contain cupric sulphate in combination with an alkaline tartrate, and in such a condition that when brought in contact with grape sugar, at a temperature of 100° Cent. (212° Fahr.), the cupric salt is reduced to its lower oxide (cuprous oxide).

These solutions, although of well-attested value, have one great objection, viz., the change which takes place when kept for any length of time, or when light and air have access to the fluid. This change allows the cupric sulphate in solution to become deoxygenized when the fluid is boiled, without necessarily the presence of sugar. Another slight objection is that the stopple of the bottle in which the solution is kept is apt to become fixed unless in constant use.

These points were given by Dr. Pavy as his reasons for undertaking the incorporation of the ingredients of the ordinary test solution into a solid and permanent form; and at last, after many fruitless attempts, his efforts have been crowned with success, as shown by the presentation of his "cupric test pellets" to the Society, as above stated.

The great practical use of these pellets at once suggested itself to me, and I endeavoured to have some made in this country, that their use might be made practicable without the great expense of importation.

In the report of Dr. Pavy's remarks,† no mention is made of any formulæ, so it is fair to

* *British Medical Journal*, February 7th, 1880.

† Exhibited to the Philadelphia Pathological Society, March 25th, 1880.

suppose that the doctor himself was ignorant of the processes by which he arrived at the result, stating that "his chemist surmounted all obstacles," etc. Therefore it is impossible for me to say whether the pellets to which I now call attention are made in the same manner as the English. I suggested the idea to Mr. McKelway, chemist, having first called his attention to the matter, and desired him to make the necessary experiments, in which he has been so successful; and it is, therefore, through his aid I can now present to the profession the "cupric test pellets," being not only a convenient means for detecting the presence of sugar in the urine, but also one for obtaining the exact amount; a quantitative, therefore, as well as a qualitative test.

Qualitative.—For detecting the presence of sugar proceed as follows: Place a pellet in a test tube, add a small quantity of water (better distilled), heat until perfect solution is obtained, when a clear, deep blue fluid will be the result. Then proceed in the same manner as when using Fehling's solution—for, in fact, it is now almost identical with it—add a few drops of the suspected urine, and if glucose be present, upon boiling, the cupric sulphate which is held in solution becomes deoxygenized by the sugar present, and we have the cuprous or suboxide, which shows itself by the change in colour, first as a yellowish precipitate, due to the hydrated suboxide, which subsequently loses its water and becomes the red suboxide.

Precautions.—The same precautions are, of course, necessary here, as when using any of the copper tests.

The English pellets, up to this time, have been prepared only for qualitative analysis; we have, therefore, advanced a step in being able to determine the amount as well, as each pellet represents accurately five milligrams of grape sugar.

Quantitative.—The quantitative analysis is performed by the volumetric process in the same manner as with the ordinary copper test solutions. The only simplification by using the pellet in this form of analysis is that it does away with the necessity of measuring or weighing, which is necessary when either Pavy's or Fehling's solutions are employed.

Approximative.—With this new form of test a very accurate approximate result can be arrived at, which is practicable, simple, and requiring but a few moments for its accomplishment, and will, therefore, doubtless, meet a long-felt want to the busy practitioner, who may not have a laboratory at his disposal, or the time required for quantitative analysis by the ordinary methods.

Allow the urine to be tested to drop slowly into a large test tube, containing one cupric pellet in solution, at a boiling temperature, until the cupric sulphate is entirely deoxygenized, which will be known by the disappearance of the blue colour. Now, as the amount of sugar required to accomplish this result is known, the only thing that remains is to have some means of determining the quantity of urine used. This can be done by using a graduated pipette or a minim glass.

It may be mentioned here that it is better to dilute the urine, as then the test becomes more accurate, and the precise moment when the blue tint leaves can be more readily determined.

Example.—For example, fill a pipette graduated in cubic centimetres with a solution of one part urine to nine parts distilled water. Then keeping the test solution (one pellet having been dissolved) at a boiling point, over a spirit lamp, allow the diluted urine to flow slowly into the test tube until all blue disappears, when a glance at the pipette will indicate that it has taken, for example, 10 c.c. to accomplish this—therefore 10 c.c. of diluted urine represents 5 milligrammes of diabetic or grape sugar; but as only $\frac{1}{10}$ or 1 c.c. of this solution was urine, then in 1 c.c. of urine examined there is .005 gramme of sugar. If in 1 c.c. of urine there is .005 gramme of sugar, in 1000 c.c. of urine there must be 1000 x .005 gramme, or 5. grammes. In this way, with a little calculation, the amount of sugar in any given quantity of urine can easily be determined. If a minim glass is used, it is only necessary to substitute the word minim for cubic centimetre.

By using a little precaution, keeping the pellets in a well-stoppered bottle, free from moisture, they may be kept for an indefinite time. It is better to avoid shaking them too much, as the edges may become broken and interfere with the accuracy required for quantitative analysis.

The test pellets can be procured at 1410 Chestnut Street.—*Medical and Surgical Reporter.*

QUEBRACHO IN DYSPNŒA AND DIARRHŒA.

The accounts which we get from foreign observers as to the action of quebracho continue to show that this drug is a valuable addition to the *armamentarium therapeuticum*. Berthold has published in the *Berliner Klinische Wochenschrift*, No. 52, 1879, an account of several cases of severe convulsive asthma where this remedy seemed to produce a very happy effect. In one, a gentleman of sixty-five was found in a violent attack, pulse 108, respiration 64. A teaspoonful of the tincture was given every hour, and at the end of three hours the respiration was reduced to 30, and the patient rapidly recovered without other medicine. In some fourteen other cases a similar happy result was attained, though not always with the same promptitude. In the case of a lady of sixty, suffering from mitral insufficiency, with stenosis and frequent attacks of frightful dyspnœa, where digitalis had failed, quebracho gave relief. Berthold also recommends the alcoholic extract of quebracho as an excellent remedy in diarrhœa. In the case of children, he gives the extract in the dose of $1\frac{1}{2}$ grains in pill form, to the number of ten a day. No ill effects have been observed. In the same number of the *Wochenschrift*, Dr. Picot relates some experiments made upon himself to ascertain if quebracho would prevent dyspnœa from the exertion of climbing, and found that by taking a previous dose of about a tablespoonful of Penzoll's tincture he could climb a considerable acclivity without losing his breath. He has also administered the tincture to two obese and short winded individuals, with the result of markedly diminishing the dyspnœa felt on extra exertion.—*Philadelphia Medical Times*.

TREATMENT OF NIGHT SWEATS IN PHTHISIS PULMONALIS.

A lady suffering from phtthisis pulmonalis had been tormented with profuse night sweats for upwards of a year. All other means having failed to relieve this distressing symptom, Dr. Köhnhorn applied the remedy employed in the army for sweaty feet—viz., Acid Salicyl 3 parts, Amyli 10, and Talc 87—with the best results. The mixture, in fine powder, was sprinkled over the patient, and the sweating ceased. With a second patient the same result was also obtained.—*Berl. Klin. Wochenschr.*, No. 1, 1880.

A NEW THEORY OF THE ACTION OF MERCURY.—In a thesis on this subject, Dr. S. V. Clevinger (*Chicago Medical Gazette*, 1880, p. 81) regards the action of mercury upon the system as in no small part mechanical. Blue mass contains metallic mercury in a finely divided form, examinations under a low magnifying power showing not less than 200,000 globules in a gramme. Dr. Curtis has estimated the diameter of these globules at from $\frac{1}{8000}$ inch to infinitely smaller. Dr. Carpenter has asserted that metallic mercury finely divided can be absorbed by the blood-vessels from the alimentary canal. Dr. Clevinger suggests that these globules drop into the gland tubules and force out the contents of the latter, thus causing a mechanical sweeping out of the glands with consequent restoration of normal secretion. He considers the specific action of mercury upon the salivary glands and its accumulation in the jaws causing caries as explainable by mechanical laws. Mercury, according to Dr. Clevinger, is not a tonic; but if it increases secretion, removes obstructions, and sets the corpuscular manufactories in order, as it does the biliary, it induces tonicity, as the bromides induce sleep. Mercury in poisonous amounts produces ulceration, neuralgic pains, paralysis agitans, epilepsy, often melancholia. Ischæmic softenings of cerebral tissues, infarctus, mania, aphasia, even hemorrhages, have, according to Dr. Clevinger, been caused by mercury, these hemorrhages having often heretofore been ascribed to syphilis. The "specific" action of mercury in syphilis cannot as yet be exactly explained. The disposition of the virus being to centralize itself upon and destroy certain areas, it seems likely that the metal may, by attacking such weakened points, not only break them down, but prevent the static degeneration necessary for the ulcerative processes. This, with the antagonism the metal has for occlusion anywhere, except what it induces itself in great doses, would suffice as a tentative view until we demonstrate exactly both the disease and its cure. Syphilis in the blood may not manifest itself if sufficient globules are chasing it from forming nuclei. Dr. Clevinger continues at some length, discussing the action of the various compounds of mercury and detailing a number of interesting experiments. The thesis, though not arranged in a perfectly clear and intelligible manner, contains much curious information.

NITRO-GLYCERIN.—Condensed from British Medical Journal: Few drugs have come more rapidly into favour than nitro-glycerin. A year or two ago nothing seemed more unlikely than that it should be used in medicine; but it now bids fair to rank high as a curative agent. It was discovered in 1847, by M. Sobrero, and its chemical properties have been fully investigated by RAILTON, De VRIJ, De la RUE, and MULLER, MILLS, DUPRÉ, MARTINDALE, and others. It is slightly soluble in water and freely in alcohol and ether, and it has recently been found by Mr. Martindale to dissolve readily in fats and oils. It is, although slightly volatile, inodorous, and has a sweet pungent aromatic taste. It has been found that the effects of nitrite of amyl and nitro-glycerin on the pulse are similar. Both produce a marked dirotism, and both accelerate the rapidity of the heart's action. They differ, however, in the time they respectively take to produce these effects. The full action of nitro-glycerin on the pulse is not observed until from two to six minutes after the dose has been taken; while in the case of nitrite of amyl the dirotism appears in from fifteen to twenty seconds after an inhalation, but its effect is transitory, being maintained for only a very short time. The nitro-glycerin acts more slowly, but the pulse does not resume its normal character for nearly half an hour. Dr. Murrell has shown from observations on a patient, the subject of epispadias, that nitro-glycerin is a powerful diuretic. On one occasion twenty minims of the one-per-cent. solution increased the amount of urine secreted in half an hour from fourteen and a half drams to fifteen and a half ounces. This was the more remarkable as the patient was not at all susceptible to the action of the drug, and experienced none of the ordinary symptoms from the unusually large doses he had taken.

LOSS OF WEIGHT AFTER EPILEPTIC ATTACKS.

—Dr. P. Kowolewski (in *St. Petersburg Med. Woch.*, No. 47, 1879) states, that after regular daily determining the weight of the bodies of epileptics, as well during the attacks as during the intervals, the following facts were noted:

1. With all epileptics, and in all forms of

epilepsy, after every attack the weight of the body, corresponding to the duration of the disease and the intensity of the attacks, decreased.

2. In old cases, where the attacks are very frequent, and the organism has become accustomed to them, the decrease in the weight of the body after an attack is inconsiderable—from one to two pounds. In recent cases, on the contrary, in which the attacks seldom appear, the loss of weight is considerable—three to twelve pounds after each attack.

3. If several attacks follow in succession, the greatest loss of weight occurs after the first attack, and the loss is very trifling after the following attacks.

4. In all forms of motor, or somatic epileptic convulsions, the greatest loss of weight occurs, viz, up to twelve pounds at a time. In the epileptical vertigo (*schwindel anfallen*), the loss is much smaller. The greatest loss of weight is, however, observed in the epileptico-psychical cases, in which it sometimes amounts to as much as one-fourth that of the body.

The increase of the weight of the body after the attacks is very great, requiring only a few days.—*Wien. Med. Woch.*, No. 9, 1880.

THE POSITION OF THE PATIENT IN EMPYEMA.

—Dr. Churton read a paper upon this subject. From observations made upon seventeen cases of empyema, most of which had occurred during the past year at the Leeds Dispensary, and upon a number of cases of simple effusion, he had drawn the following conclusions: 1. If a patient with pleuritic effusion were unable to lie on the affected side, the fluid, as a rule, was pus. 2. The converse proposition was usually, but not always, true—namely, that if the effusion were pus, the patient could not lie on the affected side. 3. If the patient could lie on the affected side, the fluid was usually clear. Briefly, it might be stated that, generally, those affected with empyema lay (if on either) on the sound side; whilst those suffering from simple effusion lay on the affected side. If, in any case of supposed chronic pneumonia or phthisis, there existed inability to lie on the affected side, an empyema should be carefully sought for.—*British Medical Journal*.

Surgery.

THE DRY COTTON-WOOL PERMANENT DRESSING IN AMPUTATIONS.

BY ARTHUR E. J. BARKER, F.R.C.S.I.

GENTLEMEN,—The four amputation wounds which I propose to make the subject of a few remarks to-day were, as most of you have seen, dressed according to the same method. But from questions which have been put to me here and elsewhere, I am led to think that the distinct principles which I have had in view as underlying this method have not been as clearly understood as is desirable. For this reason, and because you are likely to see the dressing used in other instances, I have thought that it might be well to place before you the *rationale* of the whole proceeding, and then endeavour to see how far it has been consistently met by our practice.

* * * * *

Let us now examine the mode of employing the dry cotton-wool dressing, and see how far the requirements of absolute cleanliness, adequate drainage, and complete rest, are met by it in the case of amputation wounds. But first let us consider what is meant by these terms.

By absolute cleanliness we mean the exclusion from contact with our wounded surface at any time during its treatment, not only of all palpable organic and inorganic impurities, but also of certain almost invisible minute living organisms, which we know are present in the air, and which, it is believed by many, are capable when alive of producing decomposition in the secretions of wounds. To do this, however, it is necessary, in the first place, that they should reach the wound in a living, active condition, and further, find in the latter a fluid of a certain character and density in which they can propagate largely. It has been shown, for instance, by Professor Nägeli that one of the most, if not the most, dangerous of all these organisms is quite unable to exist long or to propagate in a moderately concentrated organic fluid, in which they will develop and swarm if it be a little diluted. Possibly it is for this reason, as has been pointed out, that where an open wound is only secreting enough lymph to glue its sur-

faces together, we never find fœtor and decomposition; whereas if the same kind of wound were effusing even serum which was retained about it, it would be fœtid and swarm with bacteria. Where the latter fell upon viscid organizable lymph, they had not moisture enough to support life; while this would be supplied by the serum. This is the explanation of a believer in the germ-theory of decomposition in wounds, and harmonizes with some of Mr. Lister's observations. On this reasoning, if we could obtain a perfectly dry dressing and a moderately dry wound, whose secretions should remain above a certain density throughout, the presence or absence of noxious germs would be a matter of indifference, for in such a case they would not be able to propagate. But such conditions could only be very exceptionally met with, and hardly ever in amputations, though they are known.

But the next best thing to this would be a dressing which should absorb all secretions from the wound, without contributing from its own meshes the supposed hurtful germs. This is aimed at in Mr. Lister's method; with what results we need not discuss here. We must remember, however, that it has been shown by his adherents that certain species of germs may be present in large numbers in wounds under his dressings, without producing any septic effect. We aim, however, at the exclusion of all germs, good, bad, or indifferent, whatever be their relation to sepsis. They come under the definition of dirt once given, and as such we ought to abhor them. Dirt, namely, has been defined as "nothing but misplaced matter;" and we suppose that the whole "coccus" family are misplaced in wounds, and shall not be in error if we endeavour to exclude them.

Next, what do we mean by adequate drainage? You should be aware that, roundly stated, there are three tolerably distinct species of fluid for which it may be necessary to provide a free escape in amputation wounds. Shortly after the operation, we may have blood from small vessels, or parenchymatous oozing. Later, when reaction sets in, there may be abundant serous oozing, and, later still, true pus. All this may be perfectly aseptic, and yet produce much fever, etc., by the tension which they

cause in the wound. This tension is apparently but one form of physiological unrest, the pent-up fluid causing stretching and pressure on the injured nerve-filaments in the wound, and consequent vaso-motor disturbance, resulting in rise of temperature. But these fluids, on the other hand, may have decomposed, and may then produce septic fever, from absorption, it is supposed, of the noxious matters so generated, into the blood.

Now, to avoid both these sources of danger, we must provide some way for the free escape of these fluids, whether by drain-tube, strip of lint, gutta-percha, or other substance interposed between the lips of the wound. But we must beware, in placing a foreign body in the latter for the sake of carrying off its secretions, that this body be not present in such amount, in such a way, or for such a time, as itself to produce undue irritation. For it would thus, as I said before, defeat its own object, and provoke discharge. This is a point we are all constantly liable to forget, and do forget frequently, in the use of the ordinary drain-tube. It is often made unnecessarily large, and left in too long. Again, drainage should not be taken to mean merely conveying the secretions out of the wound, but also as far as possible away from the latter, so as to keep it in as dry a condition as may be for the reasons given. Remember always that dry organic substances are less liable to rapid decomposition than moist under similar conditions.

Turning now to the question of rest, we must bear in mind that the term as applied to wounds should have its fullest physiological signification. It should not be merely regarded as the absence of movement of the limb during and after the operation. A wounded part may probably be kept in a state of unrest quite as much by the continuous contact with it of an irritant fluid, whether applied as a dressing or accumulating in its own tissues, by a clumsy or misplaced drainage-tube, or by an unevenly applied bandage, as by being moved about or roughly handled, and the consequent constitutional disturbance may be equal or even greater. If, during the operation, the wound be wiped over with any particularly stimulating solution, be it of alcohol, carbolic acid, or anything else, a

very real irritation of the exposed nerve-filaments and tissues is induced, and we violate one of the first laws of physiological rest. Cleansing solutions, then, should be as weak as possible compatibly with the preservation of their special properties. But how much greater is the irritation when we sponge and scrub the face of a wound with strong solutions and with unnecessary zeal, as many are often forgetful enough to do, myself amongst the number. Such treatment is usually followed by copious reactionary outpouring of serum. Some wounds, it is true, have to be energetically excited to promote a decided reaction for special purposes, but not those of amputation, where we mostly have fresh clean-cut tissues. In arresting the primary hæmorrhage, then, and in cleansing, stitching, and placing a drainage-tube in the wound, we should aim at doing only as much to the raw surface as is absolutely necessary, and no more; and our cleansing solutions should not be too strong or used too long. In applying, also, our first dressing, we should use as much care as if it were going to be left on for weeks. And, if it could be left on for weeks, it would be so much the better. The wound thus at rest would be inclined to pour out only as much plastic material as would be necessary for union and could be rapidly organized, and would not be excited over and over again at each dressing to give out more fluid material in the shape of serum or pus. And supposing that we regard bacteria as hurtful, a wound comparatively dry from lack of excitement would offer a very unfavourable soil for their propagation, even if they had access to it. Suppose, then, two dressings perfectly pure in the first instance, that one would manifestly be best for the wound which could be left on longest. This, too, we are often liable to forget in our anxiety to see how all is going on about the part operated on. To the patients, also, it is in many cases of almost incalculable importance that they should be spared not only the pain of disturbing the dressing, but, often far more, the mental distress they go through at such a time. Pain and anxiety are two powerful depressants of vital force; and it may make the difference of life or death to a feeble individual exhausted by disease, whether he have an extra twenty-four

hours of rest from disturbance of his wound, and the pain and emotional disturbance consequent thereon. How much better, then, is his state when he can be left entirely alone for days and weeks. Unfortunately, this is often impossible or undesirable with the present modes of drainage. Though it is no longer necessary to meddle with wounds in order to pull away ligatures (thanks to Mr. Lister's invaluable invention of the absorbable catgut—a very great step in the direction of rest), still there is the drain-tube in the wound as a foreign body. For this reason, we are obliged to take down any dressing which includes it, in order to shorten or remove it altogether, no matter whether the dressing itself could be left on otherwise or not. Could this be avoided, it would be most desirable. And it appears possible that it may be so in the future. In a recent number of Langenbeck's *Archiv*, there is a very interesting article by a Dr. Neuber, on the use of soluble drainage-tubes. In this, he relates his experience with such tubes in a number of cases. They were made of decalcified bone, which he had found by experiment to be the best material for the purpose. Using these, he was able to leave a Lister's dressing, with some extra packing of salicylated wool, undisturbed for fifteen days, when the tube was found to have been absorbed, and its track healed. Now, if these absorbable drain-pipes can be combined with the catgut ligature and suture, we may perhaps be able hereafter with care to put up an amputation wound once for all in a pure, dry, absorbent material, and leave it so until it is completely healed before removing the first application. This, if achieved, would go near to realize our ideal dressing, combining cleanliness, adequate drainage, and complete rest.

Let us glance now at the dry cotton-wool permanent dressing as a method of wound-treatment, and see how much of these three factors it contains. We have all been familiar, no doubt, for many years, with the use of this material for injuries of various kinds, and have seen it of benefit. But one of the first to employ it as a permanent dressing to be left on for weeks was M. Alphonse Guérin, of Paris. And remember, please, that it is not the material employed, so much as the fact of his venturing

to leave it so long undisturbed round a wound, that was the novel feature of his practice which has attracted much attention. I gather from reading, and from a conversation with himself, about a year and a half ago, that, as carried out by him, this method simply consisted in wrapping a very large quantity of ordinary cotton-wool round the wound, which had not been cleaned in any particular way. This was then bandaged tightly around the part, and so formed an elastic, even-pressing, and somewhat absorbent covering, which he left undisturbed for weeks, or until the part was healed, or nearly so. This certainly secured rest, but no particular provision was made for cleanliness at starting, nor, so far as I know, for drainage.

Not long after M. Guérin's visit, Mr. Erichsen suggested to me to give this plan a trial in the hospital. He had, I believe, done so himself in private, and had formed a favourable opinion of it. I did so, as you know, in an amputation of the leg, and had such a satisfactory result that I have employed it since in two amputations of the thigh, and one of the breast. As this is the only systematic test of the method that I know of in a hospital in this country, it appears worth while to take a few notes of the results. These you have been able to watch for yourselves, so I may be brief, and avoid too much detail. But I have essentially modified M. Guérin's method in these cases, feeling bound to do so, and as follows. Knowing what cotton-wool often is in hospital, where it is left about here and there—namely, a trap for dust and dirt—I have had all that employed here baked at a dry heat of 300° to 400° Fahr. This, you know, would render all organic matter in it innocuous, and certainly destroy all germs. Now, pure dry cotton-wool is well known to be a perfect shield against the access of dust and germs to substances covered by it. I need not allude to the familiar experiments which go to prove this, and that air is completely filtered of all decomposition-exciting impurities (whatever they may be) by passing through it. If this be true, a wound perfectly clean in the first instance, carefully enveloped in perfectly clean cotton-wool in sufficient amount to absorb its discharge, ought to remain quite free from contamination from without until the dressing is

removed. The wool, so cleansed, was laid out just before the operation on a towel, to the depth of about six inches, and thus ready to be slipped without loss of time under the stump, and lapped over the end and along its upper surface as soon as the sutures were completed. It was broad enough to envelop the limb, and was firmly bound round the latter with a bandage for a long distance up. Now, what measures had we taken that the wound itself should have been put up within the wool in a really clean state? First, the hands of all participating in the operation were well washed in a five per cent. carbolic acid solution, about the properties of which I must assume we are all agreed. The whole limb both above and below the seat of operation was similarly treated, as also all instruments and appliances used during the latter. When this was completed in the usual manner, and the vessels secured with carbolized catgut, the Esmarch's bandage was removed. The wound was then sponged with iced carbolic solution, perhaps, I since think, with unnecessary energy on my part. After this, I wiped it over in the three first cases with five per cent. of carbolic oil before stitching it with antiseptic silk, and inserting an ordinary drain-tube. A strip of lint about as broad as the limb, dipped in the same oil, was then laid along the under surface of the stump, over its end and along its upper surface. Over this, the wool was now quickly folded as described.

These precautions ought to have secured a clean wound. As the spray was not used, the carbolic oil was employed as described. It was thought that it would adhere to the raw surfaces and flaps longer than the watery solution, and so render harmless any dust or invisible dirt which might fall upon them before they were enveloped in the wool. Should the same have fallen on the latter during our manipulations, the oiled lint would meet it, and render it innocuous for the wound. The dressing so applied was left undisturbed as long as possible. By this, I mean until either the thermometer indicated undue fever, whether from possible tension or toxic absorption, or the dressings began to give off an unpleasant odour.

Now, as to the three questions of cleanliness,

drainage, and rest, what does our experience seem to teach us here?

Generalizing on these four cases, the first point that strikes us is the large amount of complete rest secured to the wound and to the patient; a far larger, I must admit, and more perfect than I have ever attained by any other method. In Case 1, an amputation of the leg for sarcoma of the foot, the patient, a woman, aged 21, enjoyed the most perfect rest for ten days, until the first change of dressing; then for seven more, when the second dressing was applied, after which she was practically well, the wound having healed almost straight off, except where the drainage-tubes lay. In Case 2, an amputation of the thigh for disease of knee in a man aged 26, we had perfect rest for four days, then for two, when he had the only distress complained of. On the fifteenth day, after a few more dressings, he was up by the fire (the wound being almost healed), and was about on crutches a couple of days later. In Case 3, a patient aged 45 (amputation of breast for cystic disease), we had perfect rest for six days; then change of dressing, and again at intervals of four or five days, until an early cure. In Case 4, a patient aged 55 (an amputation above the condyles of the femur), we had complete ease from the date of operation until the end of the case. The dressings were only removed on the tenth, sixteenth, and twenty-third days. Now, except in Case 2, the patients were, from the beginning to the end, almost absolutely free from pain. And that the wounds were at rest was seen in the absence of almost every trace of reaction and of contraction in the flaps (which was peculiarly striking), and in the small amount of secretion found in the dressings; also by the temperature-chart. We had, then, freedom from pain, except in Case 2, before the second dressing. This pain was in his phthisical chest, however, and not in the wound. We had no tension from lack of drainage, as indicated by this absence of unpleasant sensations in the part and of marked temperature-disturbance. But, quite as important as this, the patients were spared, at the most critical time of the case, all the dread and worry of having the dressings changed and the wounded part handled. They lay quietly as

first placed, with a soft, elastic, warm, and evenly pressing material round the whole limb; remember, for ten days in two cases, and for six and three in the others. The second interval of rest, too, lasted for seven and six days respectively in the first and last cases.

Our experience, then, in these instances would seem to show that, as regards the securing of mental rest for the patient and physiological rest for the wounded part, this mode of dressing has shown itself admirable. To my mind, I must admit that in this respect it goes far beyond the old method of simply laying the stump, covered with oiled lint, on a pillow. For here we have all this, and in addition firm elastic support to the muscles all the way above the wound; a support no less grateful to the patient, as diminishing the tendency to spasm, than important to the flaps as combating their retraction. I cannot but think, too, that the absence of all variations of temperature about the wound must be of considerable importance. This the permanent dressing of dry cotton-wool prevented, by its bad conducting properties. Changes of temperature, particularly in a wound, mean disturbance of the equilibrium of the nerve-forces of the part, and consequently disturbance in its nutrition, the very thing we are doing our utmost to avoid.

In two of these cases I should have left the first dressings on much longer if it had not been incumbent upon us to remove the drainage-tubes and stitches. But these had done their work, and at the end of ten days, or even earlier, were only irritant foreign bodies.

This leads me to speak of drainage. That this was adequate, was indicated by the absence of unpleasant sensations on the part of the patient and of marked rise of temperature. Had there been tension of serum, blood, or pus to any noteworthy degree, both of these factors would have been present. Moreover, the secretions were fairly distributed through the wool around the wound, and had to a large extent dried up; so that, at the end of ten days, we found only a very small quantity, perhaps a couple of ounces of viscid pus, about the line of the wound.

We come now to the question of cleanliness, and how far its requirements were met

in these cases. You have seen that, in applying the dressing, we went a long way in this direction. Now, during the ten days which elapsed before their removal in Cases 1 and 4, and six days in Case 3, what evidence had we that all was clean around the wound? First, there was the temperature chart to guide us. You will see by it that in all cases we had a rise towards the second day, and then a fall again. This ascent probably corresponded to reaction after the shock of the operation. It may have been due to the accumulation of a little serum within the flaps. At all events it was slight, and, moreover, transient. In Case 4, this was hardly present at all, but was followed on the fourth day by a rise to 101.4° , for an hour or two, after which the temperature gradually fell to normal, and remained nearly so until the end of the case. In Case 1 it slowly rose until, on the tenth day, we had 102.6° , after which it fell, and remained at nearly normal throughout. In the other two cases, I am not sure that the rise on the sixth and seventh days was not due to other causes than the wound. You must remember that in Case 2 we had well-marked evidences of phthisis, with spitting of blood. But in none of the cases had we a persistently high temperature, or one that called, in my opinion, for removal of the dressings. Next, we had no unpleasant sensations on the part of the patient to indicate tension, etc., in Cases 1 and 4. In Case 3 we had a slight sense of contraction about the wound, from the description like what would be caused by the drying of the blood on the dressings. This was on the fifth day. Another indication as to the cleanliness of the first dressing during the long interval before its removal, we gain from our sense of smell. Now, in Case 1 there was no odour at all from the wool during the first ten days; in Case 2 a faint sickly odour like dry blood was, I think, perceptible on the eighth day. But you may remember what difficulty some of you had in determining whether there was or not. On this day, when I was not present, Mr. Banks tells me that there was a great difference of opinion on the point among the class going round with Mr. Heath, but that the greater number were inclined to follow Mr. Heath, who was kind enough to

test the dressing as to this point at the time, and who took the view that there was no smell. On the tenth day, however, it was plain, but very faint. In Case 3 the dressings had no smell of decomposition from beginning to end. In Case 2 they gave off a very marked odour almost from the beginning to the end. In Cases 1 and 4 the second dressings had a slight odour a day or two before their removal, seven and six days after they had been applied.

Now as to the state of the dressings on their first removal, after ten days in 1 and 4, six and three days in the other cases. In Case 3, as has been stated, there was no odour from the start to the end. In all the others there was a pungent smell, like high game, in the small quantity of pus which lay about the wound. There was no question about this smell, it was very bad; but if we are to judge by the appearance of the flaps, and the patient's general condition as to temperature, etc., the decomposition which it indicated was apparently doing no harm.

Now as to the pus present in the dressings: this was found in remarkably small quantity, considering the time it had to form. This was probably due in the first instance to the absence of irritation; in the next, to evaporation of its watery constituents through the wool. What was found was thick and viscid, certainly for the greater part much too concentrated to form a good soil for bacteria. As to the latter, they were present on all occasions in numbers, but apparently not very active. Mr. Silcock, to whom I am indebted for a more careful examination of the pus in regard to this point than I was able to make myself, tells me that there were no rod bacteria, but only micrococci present. Whether this has a bearing on the question of cleanliness, I think we must leave to further study of the whole matter. It is, however, so far interesting. On the removal of subsequent dressings, a similar pus and odour was present.

No one, then, who saw the removal of these dressings would have said that the highest ideal of cleanliness had been reached—that is, if much stress is to be placed on the smell emitted. We must be careful, however, I think, not to lay too much stress on this smell, undesirable though it be. It is just possible that there may

be some odours indicating danger, and others not; just as there are apparently harmless as well as harmful organisms to be found in the pus of wounds. At all events, the pus around and in contact with the wound was in a very desirable condition. Better than all, in conclusion, the patients had an uninterrupted, rapid, and good recovery in all cases.

We have now examined some of the principles upon which we have used this dressing. It has been an interesting experiment, and one from which I myself must say I have learned much; and chiefly the great value of prolonged rest; and that, in our struggle for cleanliness, we may needlessly go too far towards the production of unrest. Also that a wound put up carefully in a very clean condition, may be so left much longer than we usually think.

Further trial may teach us still more. If then we find the dressing wanting on the whole, let us by all means reject it without more ado. In the meantime, let us give some further study to its bad and good points in a fair, liberal, and candid spirit of inquiry.—*British Medical Journal*.

DISLOCATION OF THE WRIST.

BY FRANCIS G. HAMILTON, M.R.C.S. ENG.,

Assistant Surgeon to the Central London Throat and Ear Hospital.

A case of dislocation of the wrist having been reported in the *Journal* for March 13th, by Mr. R. Anderson, induces me to send the following notes of a similar case. At the time when it occurred I was Senior House-Surgeon to the Royal Free Hospital, and the notes are reproduced from those then taken.

W. M., aged between 14 or 15, was brought to the Royal Free Hospital on August 12th, 1876, at 6. p. m. The boy, when playing on a railway viaduct, had been chased by an official of the line, and had fallen from the viaduct, a distance of sixteen feet, striking his left side, and doubling his left wrist under him. On examination a distinct semicircular projection was visible on the extensor aspect of the left fore-arm, about an inch and a half above the normal position of the wrist-joint, the convexity pointing upwards. There was another similar projection on the flexor aspect, in the normal

position of the wrist-joint, with the concavity downwards. The fingers were semiflexed and flaccid. Both styloid processes could be plainly felt, immovable, and in the right position, as proved by comparing the two fore-arms, and by following down the subcutaneous lines of the ulna and radius. The convexity of the carpal articular surface and the concavity of the radio-ulnar could be distinctly felt, the hand itself being slightly drawn to the ulnar side. The diagnosis of dislocation of the carpus on to the extensor surface of the fore-arm was indubitable.

Reduction was effected without any difficulty by simple extension; it was sudden, and the deformity was at once removed, and did not return in any degree when extension was removed, and the movements of the joint could be then all elicited with but slight pain. The hand and fore-arm were placed on a straight splint, reaching from the elbow to the metacarpophalangeal joints on the flexor surface.

Twelve days later the splint was removed, and the joint was found rather abnormally lax, and slightly swollen over the flexor tendons. The patient could supinate and pronate the fore-arm freely, and could also lift a light chair with the affected hand without pain. He said that since the reduction he had experienced no pain, and he had slept well.

A similar case of dislocation of the wrist backwards was reported by Mr. Alder Smith, in the *Journal* for June 24th, 1876.

Mr. Holmes states, in his *Surgery*, that "dislocation of the wrist occurs almost always backwards," and that "dislocation in the other direction (i.e., with the hand in front of the fore-arm) hardly ever occurs as a traumatic lesion." There is, however, a good illustration of a traumatic forward dislocation in Erichsen's *Surgery*, taken from a cast of a case of Mr. Cadge, of Norwich.

Dr. Frank H. Hamilton, in his classical work on *Fractures and Dislocations*, relates a case of backward dislocation which he himself saw in an old man aged 75. He also quotes another case, that of a lad about thirteen years old, who dislocated both wrists by being thrown from a horse, one wrist being dislocated backwards, and the other forwards.

The accident certainly but very seldom comes

under the observation of surgeons; but Hamilton states, on the authority of Professor F. L. Parker, of South Carolina, that there are thirty-three cases of wrist dislocation on record, and of this number only ten were forwards, and the remaining twenty-three backwards; but he declares that only five of the backward, and two of the forward dislocations are free from all objection. The cases reported by Mr. Alder Smith, Mr. R. Anderson, and myself agree in the following particulars. The patients were all aged about fifteen years, the diagnosis and the reductions were very easy, and the dislocations were all the result of great violence.—*British Medical Journal*.

DISCHARGE OF PISTOL AGAINST EPIGASTRIC REGION.—PASSAGE OF THE BALL *per anum* ON THE FOURTH DAY.

From *La Correspondencia Médica* we extract the following case published by D. Félix V. Cors: A boy of 16 years, while cleaning a double-barrelled pistol (of Lefancheux's system), held the mouth of one of the barrels against the stomachal region, and had the misfortune to discharge it. Seen a few minutes later, he presented in the epigastric region and a little to the left an irregularly circular wound about 12 millimetres ($\frac{1}{2}$ inch) in diameter, with flaccid edges, blackened and slightly inverted in an oblique direction downwards and to the left, probably that taken by the projectile. Exploration promptly showed that the skin and gastric mucous membrane had been traversed, and the complete absence of any wound of exit, taken in conjunction with the vomiting and pains the patient presented, caused the presence of the projectile in the fundus of the stomach to be suspected. On the night of the third day pains appeared in the middle and lower part of the belly, with desire to defecate. On the following morning three bloody motions were passed, and with the second a leaden ball of conical form, of 12 millimetres, and corresponding to the cartridge-shell which remained in the pistol after the discharge. The epigastric wound soon cicatrized, without giving rise to a fistula or ulterior digestive disturbance, and without, during its course, any resentment on the part of the peritoneum of the lesion it had received.—*Rev. Med. y Cirugía Pract.*, Madrid.

STRANGULATED INGUINAL HERNIA SIMULATED BY BLOOD IN THE SCROTUM.

BY JOHN C. UHTHOFF, M.D. LOND.

The following case is one of great interest, chiefly from a practical point of view, though its exceptional nature would also make it worthy of record. E. M., aged about 60, a bath-chair man, was apparently in good health on the evening of November 21st, 1879. His previous history I had been unable to obtain; but it scarcely has much influence on the immediate interest of the case. During the night, he was seized with severe pain in the abdomen and down the left leg. Mr. E. J. Furner was called to see him, and found him suffering intense pain. His agony was so great that he was writhing about in bed, and could not be kept quiet. Mr. Furner found, on examination, what appeared to be a strangulated scrotal hernia on the left side; that is to say, there was a sausage-shaped tumor in the scrotum, coming through the external abdominal ring, which was tense and gave no impulse on coughing, and which had appeared suddenly, the man having before been accustomed to have a reducible scrotal hernia on this side. He also had a reducible hernia on the right side. The abdominal pain, too, corresponded with a sudden and severe strangulation of the gut, although that down the leg could hardly be explained in the same way. Mr. Furner advised that the patient should be at once removed to the Sussex County Hospital, in view of an operation being performed as soon as possible. This was not done until the morning, when, in the cab on his way to the hospital, he died. Shortly before his death, the patient expressed himself as feeling better, and he had less pain.

POST MORTEM EXAMINATION. — He was a strongly developed and well-nourished man. There was extreme pallor of all parts of the surface of the body. In the left scrotum was a sausage-shaped tumour exactly resembling a hernia, and irreducible. On dividing the structures superficial to this tumour, it was found to be a cylindrical clot of blood lying behind what appeared to be the sac of the reducible hernia from which he had suffered. On following up

this clot through the abdominal ring, it was found to be a portion of an immense collection of blood, which, lying behind the peritoneum, occupied almost the whole of the back of the abdominal cavity, enveloped both kidneys, extended into the meso-rectum, meso-colon, and mesentery, and could not have consisted of less than two or three quarts. The psoas magnus muscle of the left side was quite destroyed; and running through the clot, so as to cause great difficulty in removing it, were the cords of the lumbar nerves. The source of this extensive hæmorrhage was the rupture of a fusiform aneurism of the left common iliac artery. In consequence of the presence of an old-standing inguinal hernia, the left inguinal canal had nearly disappeared, leaving an almost direct passage through the abdominal wall opposite the external ring; through this the blood had passed into the scrotum, but beneath the peritoneum, instead of within its cavity, as the hernia would have been. The left ventricle of the heart was contracted; the aorta was atheromatous; and the kidneys were granular and cystic.—*British Medical Journal.*

TOPICAL USES OF ERGOTINE.

Eldridge has made use of this drug in rosacea, granular urethritis, gonorrhœa, and otitis media. In a case of typical rosacea in a young woman, ergotine was applied on strips of lint at night. Within three weeks good effects were apparent. The general hyperæmia was considerably lessened, many of the enlarged vessels had entirely disappeared, and pustules were of rare occurrence. At the expiration of six months the disease had entirely disappeared. In another case of hypertrophic rosacea of ten years' standing, the hypodermic use of ergotine was tried. Injections of two or three minims of the following preparation were made into the substance of the skin, at intervals of three days, viz.: Ergotine, gr. xv; glycerine, ʒss; water, ʒij, to be thoroughly triturated and strained. The result was eminently satisfactory. In two cases of granular urethritis, the results of the ergotine treatment were very gratifying. In the first case, after an Otis' operation for stricture, the gleet discharge persisting, an endo-

scopic examination showed the bulbar urethra for nearly two inches to be lined with large, flabby, and tender granulations. Bonjean's ergotine was applied pure, by means of an ointment syringe, after evacuation of the bladder and thorough irrigation of the canal by warm water. Six applications on alternate days effected a cure, the gleet entirely disappearing, and no trace of granulation being visible by the endoscope. The second case had a history of two years' severe and constant muco-purulent discharge following gonorrhœa, with occasional slight hemorrhages; patches of granulation were distributed throughout the whole spongy urethra. Daily applications were made for a fortnight before the discharge ceased, and ten more days were required to remove the granulations. A useful instrument for the local application of the ergotine may be extemporized, by mounting upon a small, flexible bougie, a foot of circular, closely woven, hollow lamp-wick, of a diameter equal to a number 12 English bougie. The small bougie is passed into the centre of the wick, the lower end of the latter having been securely tied. The patient should swear this swab thoroughly with ergotine, rubbing it well into the fibre; then, after urination, and irrigation of the urethra, pass the instrument to the needful depth, there to be retained for half an hour. Ergotine, diluted with glycerine, was applied by means of a camel's hair brush, to an old case of otitis media, with encouraging results.—*New York Medical Journal*, October, 1879.

LIPOMATOUS DIATHESIS.

D. Pedro Angel Osuna narrates in *La Andaluçia Médica* a case of what Follin called the lipomatous diathesis. It occurred in a woman fifty years of age, of good constitution, and without morbid antecedents, who had twenty-two lipomata on the left arm, nineteen on the right, seventeen on the left thigh, thirty-five on the right, and two on the belly. Among these 95 lipomata, the sizes varied from that of a walnut, the smallest, up to that of a fetal head, the largest. Senor Osuna, not having found in the authorities any satisfactory explanation of

cases analogous to the present one, and relying upon a physiological study of the combustion of fat in the organism, supposes that, given a faulty relation between growth and waste, a want of oxygen for oxidation purposes, or a diminution of alkaline carbonates in the blood plasma, fat will accumulate in certain situations affecting the form of tumour. This explanation is not accepted for the solitary lipomata which follow contusions, and which he believes to be formed at the expense of a fatty transformation of the red globules of the blood driven from the vessels by the traumatism, and which serves as a nucleus for the formation of the lipoma. Resting on these pathological considerations, he enunciates a treatment of lipoma which consists in subcutaneous sections and massage (kneading) of the tumour, proposed by Bonnet (of Lyons), accompanied by injections of pancreatic juice, which by its emulsionizing action favours the resorption of the fat of the neoplasm.—*Rev. de Med. y Cirugía Pract.*, Madrid.

FALL OF SEVENTY FEET—RECOVERY.—Dr. Stephen Kartulis, House Surgeon to the Greek Hospital in Alexandria, reports in the *London Lancet* for 27th March, the case of a boy seven years old, who fell from the top of one of the highest houses in Alexandria, a distance of 71 feet 3 inches, and sustained a compound fracture of both bones of the leg, and a fracture of the femur. The boy retained consciousness, but delirium and convulsions occurred in the subsequent history of the case. He ultimately made a good recovery, with half an inch shortening of the leg.

In the *British Medical Journal* for 27th March, Mr. Pugin Thornton recommends the use of the following solution in the treatment of Ozæna:

R. Sodæ Carbonatis.
Sodæ Biboratis āā..... ʒij.
Liq. Sodæ Chlorinatæ..... ʒss—ʒij.
Glycerini..... ʒi.
Aq: ad ʒvi.

It is applied cold by means of a hand-ball spray apparatus.

Midwifery.

CANCER OF THE UTERUS — TREATMENT BY A NEW METHOD.

In the impression of the London *Lancet* for the 27th of March, Professor John Clay, of Birmingham, gives an account of a year's experience of a new treatment of cancer of the female generative organs, recently adopted by him. He gives the detailed history of four cases so treated, and refers to several others, all attended by the same result, viz., the almost immediate cessation of the pain, and the gradual melting down of the neoplastic material, with development of cicatricial tissue in its place. The general symptoms are all promptly benefited by the treatment, while the local discharge was at first very much increased, and altered to a dirty white, tenacious, ropelike secretion, which gradually became thinner and more serous, and ultimately disappeared. The form of prescription recommended by Professor Clay is as follows: Chian Turpentine, six grains; Flowers of Sulphur, four grains, to be made into two pills, to be taken every 4 hours; or, Solution of Chian Turpentine [one ounce of the turpentine dissolved in two ounces of pure sulphuric ether (anæsthetic)], half an ounce; solution of Tragacanth, four ounces; Syrup, one ounce; Flowers of Sulphur, forty grains; water to sixteen ounces: one ounce three times daily. The maximum dose of Chian Turpentine which can be safely and continuously given he has found to be 25 grains daily. The remedy must be long continued, but Professor Clay finds it advisable to discontinue its administration for a few days after 10 or 12 weeks' constant use, and to resume it as before. To test its efficacy, the drug was tried alone, without local treatment, with the above results; but Professor Clay speaks highly of the use of a lotion containing six grains of white arsenic to the pint of water, used daily as a detergent and disinfectant. The remedy has also been successfully employed by him in cancers of the stomach, vulva, and abdomen. During its use he prescribes no opiate or anodyne. Even if the astonishing relief of pain were the only use of the remedy, it must be admitted that its discovery is a long stride forward in the treatment of this terrible affection. The difficulty of obtaining Chian turpentine renders sophistication much to be feared.

Hospital Reports.

TWO CASES OF MALIGNANT DISEASE OF THE STOMACH, OCCURRING IN THE WARDS OF THE HAMILTON CITY HOSPITAL.

BY T. W. MILLS, M.A., M.D., RES. PHYS.

Read before the Hamilton Medico-Chirurgical Society.

GENTLEMEN,—I beg to bring before your notice this evening two cases of cancerous disease of internal organs, occurring in the wards of the Hamilton City Hospital.

CASE 1ST.

A. B., æt. 56—a man of large frame, but much emaciated—a labourer, was admitted on March 3, 1879, hoping to get cured of "the ague," which he stated no remedy had been able, up to the present, effectually to banish. His own account of his case was to the effect that since last June he had had intermittent fever; sometimes suffering from a chill twice in the one day; no paroxysm for the past two weeks. He makes especial complaint of his appetite and digestion; after eating there is pain in the epigastrium, and he experiences a sensation "as if there was a lump of something rolling there." He also belches up flatus after each meal. The bowels have, as a rule, been alternately constipated and relaxed. He has tried several prescriptions, but none of them seem to have had much effect in remedying the dyspepsia, which latter, with all his other ills, he attributes to ague. He admits having partaken of alcohol freely during his lifetime, but never had any form of venereal disease. His general health has always, till of late, been excellent. The patient's aspect is almost ashen, and this combined with the emaciation gives the man a ghastly look, which strikes any visitor the moment he enters the ward. Tongue pale and furred; tenderness in epigastrium and right hypochondrium on the slightest pressure; bowels confined; appetite weak and capricious; lungs healthy; heart perhaps somewhat enlarged; splenic dulness measures 5 to 6 inches vertically; hepatic dulness extends a little beyond the ribs.

The case came under Dr. Woolverton's care, and treatment was directed to relieving the dyspeptic symptoms and improving, if possible,

the anæmic condition which was present to so marked a degree. Accordingly, on the day of admission he was ordered mustard over the epigastrium, and given a purgative at bed-time.

March 4th. Patient last night had a chill; bowels moved moderately by the purgative. Pil. Cath. Co. iij.

March 6th. Ordered, three times a day after meals, Liq. Arsenical. *miv.*, and Cinchonidæ Sulph. gr. i. (dissolved.)

March 12th. To relieve the flatulence ordered to have Tr. Capsici *miv.* added to each dose of his arsenical mixture. To take in powder—a mixture of Sodæ Bicarb. and Pulv. Rhaei. for the acidity of stomach.

March 14th. Vomited copiously this morning; staggers from weakness when he walks.

March 15th. To take only toast, rice and milk as his diet.

March 21st. To stop arsenical mixture, and take one containing Ammon. Mur. Liq. Strychn. and Tr. Cinchonæ Co.

March 23rd. Had last night a severe chill; bowels now much relaxed, especially at night. Given to-day Cinchonidæ Sulph. grs. viij. and pills of Lead and Opium, to control the diarrhoea.

April 7th. Diarrhoea has been very troublesome. Yields better to Pulv. Ipecac. Co. than to the pills of Lead and Opium. The stools are liquid and very fetid; seem to contain considerable bile.

April 8th. To take a mixture containing Pepsin and dilute Muriatic Acid with Mucilage of Gum Acacia, after each meal.

April 12th. The last mixture to be stopped, as it does not seem to have the slightest good effect.

April 14th. Stomach getting more and more irritable; various remedies for vomiting tried to no purpose. Ordered to have milk and beef-tea (only), in very small quantities at a time. The exhausting diarrhoea continues. His spirits were very much depressed from the first, but now the sadness of mind is deepening and persistent; was ordered whiskey, 3 oz. per diem. To add to his other troubles, a most obstinate hiccup is subtracting its quota of his little remaining strength.

April 17th. To-day the patient is hilarious.

“Oh, man, there is nothing so good for a man, I do believe, as a little good whiskey.”

April 19th. Seems to have improved a little; the diarrhoea somewhat under control, by the use of Pulv. Ipecac. Co., in ten-grain powders, repeated every three hours. Appetite a little improved.

May 3rd. Appetite again falling off.

May 4th. Seems to be declining rapidly; temperature subnormal.

May 5th. Very weak this morning; about noon quietly dropped off—dead.

The *necroscopy* was held seven hours after death. Extract from the records made at the time:

Heart—L. V. hypertrophied; walls measure at thickest part an inch.

Kidneys—Weight 4 oz. each; cortical substance deficient; firm bands of whitish tissue extend around the pyramids; general consistency of organ increased.

Liver, Stomach, and Pancreas removed together, a double ligature having been placed around the cardiac and pyloric junctions of the stomach; total weight of these organs 5 pounds.

Liver—Somewhat contracted; surface covered with nodules of various sizes, of a yellowish colour; some indented by cicatricial contraction, others appearing as simple elevations on the surface. These, when cut into, present a circular and somewhat radiated appearance.

Pancreas—The head seems to be somewhat involved in the new formation.

Stomach—Pyloric end and first part of duodenum (2 inches) involved in a firm, puckered growth, which, on the innermost (mucous) aspect presents a softened condition, representing the various stages of degeneration of cancer. Only moderate stenosis of pylorus.

CASE 2ND.

J. M., æt. 57, labourer, was admitted in a very feeble condition, with cough, emaciation, pallor, and general weakness as his most marked symptoms.

It must be remarked at the very outset that the patient was not only feeble in mind, but, being a German, spoke the English language very imperfectly indeed. So depressed in spirits was he, and so emotional, that often on being interrogated he would weep like a child. Briefly,

the history obtained was as follows: Patient's health record is good. He states that he has had intermittent fever several different times; was treated for this malady by several physicians. Like the other patient whose case has been just detailed, J. M. attributed his present troubles entirely to the results of ague. Some six months ago he was specially treated for ague; has never been in good health since then; his own account of his present illness is very vague indeed; however, about eight weeks ago he was obliged to take to bed. At that time he was feeble; had diarrhoea, chills, and cough of late. He cannot say whether the chills were of periodic occurrence or not; appetite rather poor; the tongue is red and glazed; no diarrhoea just at present; cough is slight; very little expectoration. The patient is of a sallow hue, though this is very much more marked on some days than on others; indeed, occasionally the aspect is tolerably healthy; the emaciation is considerable. The notes on the physical examination were as follows:

Lungs—Relative dullness in right side; most marked at angle of scapula behind.

V. R. and V. F. augmented on right side.

Respiration harsh and feeble; but râles are absent during ordinary respiratory efforts.

Heart—Sounds weak, but free from murmur; apex beat not defined.

Hepatic dullness extends from upper border of 6th rib, for 3 to 4 finger-breadths below the lower margin of the ribs. There seems to be a tumour of considerable size extending as low as umbilicus, and to the left of this point, in the form of a curve, with the convexity downwards. This tumour cannot be well defined, from the extreme rigidity of the abdominal walls; however, there is dullness over the whole right hypochondrium, epigastrium, and left hypochondrium, as indicated by the curved line referred to above. Below these points the abdomen yields a highly resonant note on percussion.

Subsequent examinations confirmed the first impressions. Flatus interfered with the percussion of the spleen. Veins of the abdomen distinct. The abdomen over the area of dullness is very tender, even on superficial examination; but deep palpitation reveals tenderness in other parts of the abdomen also.

As the course of Case 1 was given in some detail, it may suffice to outline the symptoms, with their variations, less minutely in this case. The patient was in the ward and under observation from December 18th, 1879, up to the date of his death, March 17th, 1880—three months.

The *Temperature* varied from 104° to 96½°, having been subnormal on several occasions. He had, on not a few occasions, chills, during and immediately after which the temperature rose, generally falling within twelve hours either to normal or two or three degrees. The patient was under the impression that these were fits of ague. There was, of course, the absence of the characteristic sweating and other symptoms of intermittent fever.

The *Pulse* ranged from 72 to 120 per minute, and varied with the temperature.

The patient vomited on several occasions, but *vomiting* never had been a marked symptom, nor was it such as to attract very much attention at any time. He did not vomit in all a dozen times during his three months' stay in the hospital.

Constipation, a very decided symptom in this case, was constant, yet overcome with moderate purgative doses. The stools were often scybulous, sometimes clay-coloured. The *Appetite*, till within three weeks of his death, was tolerably good, though very variable.

On admission, the *Urine* contained a trace of albumen; different examinations failed to establish the presence of casts. February 8th there was a trace of bile pigment, and an unusual amount of colouring matter.

Pain was frequently complained of in the abdomen, especially over the tumour; but this was invariably relieved by hot applications, without the use of opiates. The night before the patient expired he was thought by the nurse to be dying, and the resident physician, on going to him, found him in a state of partial collapse, from which he rallied on being given some stimulant. He died on March 17th, in clonic spasms.

During his residence in the hospital he was under the care successively of Drs. Locke, MacKelcan, Malloch, and Woolverton.

The treatment was largely expectant. Throughout the patient was given a nourishing

diet, and during the latter part of his illness alcoholic stimulants. There were very few special symptoms to be met by medication.

Extract from the *autopsy* records made 22 hours after death.

Rigor Mortis almost absent; eyes and mouth open; left pupil much dilated.

Diaphragm rises as high as 4th inter-space on right side. On opening abdomen by the usual incision, extending from chin to *symphysis pubis*, the small intestines and omentum are found studded with small bodies of a whitish colour and irregularly circular shape, the greater number being about the size of a sago grain.

The liver extends about to margin of ribs; its lower surface is, in part, adherent to a firm mass, formed by the stomach and in part by the transverse colon; the under surface of the diaphragm studded with nodules of a cheesy colour and consistence (or a little harder). In the belly there is found a tumid mass lying in the right hypochondriac and epigastric regions chiefly. This extends as far downwards as the umbilicus, curves from left to right, being lowest in the middle line. The upper two-thirds of this mass has a very firm feel, the lower third less so, and is made up in part of the transverse colon.

Heart not more than one-half the size of subject's fist; some nodules on the surface resembling those described in connection with the diaphragm; consistence of organ somewhat diminished; color brown; microscopic examination revealed excess of intermuscular connective tissue and the yellow pigment in the fibrillæ characteristic of Brown Atrophy; no valvular disease.

Lungs—*Left Lung* almost normal (a few enlarged glands at root).

Right Lung—About middle of upper lobe there are a few caseous masses, and in their neighbourhood some pus; a group of caseous glands to be seen at the root.

Stomach, &c.—The Liver, Stomach, Pancreas, and part of the Transverse Colon removed together, owing to the difficulty in separating them, so agglutinated were the three latter into one mass of disease.

The Liver is below medium size; has the "nutmeg" appearance in a moderate degree; capsule is thickened; on various parts of the surface several nodules of a yellowish-white colour, which, on section, are found to be solid

cylinders with a somewhat radiated aspect, though circular outline; some of them are stained with bile.

Stomach, along greater curvature, measures about 18 inches; breadth proportionate. The disease involves the *pylorus* and adjacent portion to the extent of one-third of the entire organ; in fact this portion is one immense mass of disease, evidently cancer in different stages. The upper and outer portion of this tumour is exceedingly firm, and on section through it pus is found abundantly. On reaching the inner surface of the organ, the appearance presented generally is that of a ragged growth, some parts of which have a pinkish aspect and soft consistence, suggesting encephaloid carcinoma; other masses, near the pylorus have a somewhat lobulated appearance. The cardiac and middle portions of the stomach apparently quite free from disease.

The glands of the mesentery are enlarged and caseous.

Brain—An examination of the encephalon revealed nothing special unless some compression of the convolutions on the right superior surface of the anterior lobe, and very moderate fullness of the vessels of the membranes and other parts.

A tabular comparison of these two cases may be instructive.

CLINICALLY CONSIDERED.

It is worthy of note, that both the patients supposed they were suffering from intermittent fever and its effects, and had been treated for this malady by several physicians.

CASE I.	CASE II.
Age, 56.	Age, 57.
History of chills.	History of chills.
Vomiting not a marked symptom.	Vomiting not a marked symptom.
Pain not troublesome or absent.	Pain present, but easily relieved.
So-called cancerous cachexia very pronounced.	Not at all well marked.
Appetite extremely poor.	Appetite mostly fair.
Dyspeptic symptoms grave.	Not much dyspepsia, apparently.
Diarrhœa persistent and uncontrollable.	Constipation.
Depression of spirits highly characteristic.	Equally so.

PATHOLOGICALLY CONSIDERED.

CASE I.

Scirrhus Carcinoma, affecting Pylorus and Duodenum.

Secondary ("radiated") Cancer of Liver. Moderate stenosis of Pylorus.

Cancer confined to Pylorus, Duodenum, Liver, and Pancreas and adjacent glands.

CASE II.

Sc. Carcinoma, affecting less the P. and more the C. end of Stomach.

The same.

Food, to reach Pylorus, required to pass through a narrow channel created by the growth inwards.

Really a case of disseminated Carcinoma, the growth being found also in the Lungs, Heart, Intestines, Diaphragm, and omentum; the T. Colon involved and narrowed (explaining the constipation.)

Diagnosis.—Disease of the carina was excluded from the infrequency of vomiting, and its character and period of occurrence, some time after a meal. There was no difficulty in swallowing, moreover, at any time.

Inasmuch as primary disease of the liver is rare, from the symptoms present in both cases it seemed fair to conclude that the growth originated in the stomach.

Pathology.—At the autopsy in the first case, from the position of the new growth, the extensive puckering, &c., there was no difficulty in concluding that scirrhus of the parts existed; a conclusion the microscopic examination proved to be correct.

In Case 2 there was more room for doubt as to the form of carcinoma present.

On the one hand, the disease had left free, almost, a part, to say the least, very commonly attacked.

Again, in the mucous surface of the organ at one portion there was the exact appearance presented by medullary cancer; but then, though soft, it lacked the pultaceous consistence of that form. Colloid was excluded, inasmuch as neither the proper colloid (gelatinous) matter was present to the naked eye, nor on microscopic examination were the *roundish* cells peculiar to this form to be seen. These sketchings

(shown to the Society) will give you an idea of the shape of the cells as found in different parts of the growth on the inner aspect of the stomach. The appearances suggesting encephaloid, epithelioma, &c., were probably due to the rapid retrogressive changes that take place in such foreign growths as cancer on a mucous surface, exposed as it more especially is in the stomach to the influence of the digestive fluids, food, &c., &c. No more striking picture is needed to impress upon the mind the aggressive, infiltrating, and disseminating character of malignant disease than that furnished at the autopsy in the second of the cases detailed.

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CASES UNDER THE CARE OF DR. GRAHAM,
TORONTO GENERAL HOSPITAL.

PROGRESSIVE MUSCULAR ATROPHY.

[Reported by Mr. EDMUNDSON.]

R. D., *æt.* 48, born in Ireland; admitted into the hospital February 10, 1880. Patient has lived in Collingwood for the last 12 years. He has been a fisherman by occupation since he was 18 years of age, having followed the business, first in Toronto and then in Collingwood, until three years ago. During this time he was very much exposed to cold and wet, and in salting the fish he had his hands and arms a great deal in cold salt water. For the last three years he has been a lighthouse-keeper; but the lighthouse was some distance from the shore, and he was frequently much exposed in going to and from it.

He has been 21 years married, and has ten children living, all quite healthy. He lost one child at the age of two years, but does not know the cause of its death. He has always been quite healthy until this trouble began. His parents are both dead. His father died at the age of 54, of some liver trouble; and the mother at 64, of paralysis.

Patient when about 20 years of age met with an accident, which resulted in permanent ankylosis of the left knee.

He has been a very moderate drinker, but has been a heavy smoker. Has latterly smoked more than ever.

About May, 1879, he noticed that the thumb of the right hand began to get weak. When

painting a boat, he could scarcely hold the brush. He could, however, row all summer, but in October he noticed that the index finger began to get weak, and this was immediately followed by weakness of the other three fingers of that hand, so that he was not able to row himself out to the lighthouse in stormy weather. In January he noticed that the arm became weaker, and in two weeks afterwards he noticed that the thumb on the other hand became also weak.

He has no lack of sensation, nor any peculiar sensations present in any part of the body. When electricity is applied, however, there are two spots very sensitive to its influence—one on each scapula. These spots are $1 \times 2\frac{1}{2}$ inches in size, and vary slightly in position, but are always on the dorsum of the scapula, below the spine.

Patient does not complain of any pain. He sits up all the time, but thinks that it tires him to do so more than formerly. He is fairly nourished, but the muscles of the right arm are perceptibly wasting, the measurements being less than the other in all situations. His pulse is 72; respiration, 18; skin, normal. His appetite is fairly good, as is also his general health. He has noticed that within the last three months his eyes are easily tired by reading. His hearing is good. He has no headache or vertigo. His bowels are regular, and his urine is normal in appearance and quantity. There is a great deal of twitching of the fibres of the affected muscles, as well as those connected with the scapula. The vibratile movements of the muscular fibres are especially marked when the surface is struck by the hand, or when they are excited by electricity.

It is difficult to make the extensors of the right arm respond to the Faradaic current, and it has been found impossible to get any response from the muscles of the ball of the right thumb.

The treatment recommended was the use of the Faradaic current and the internal administration of phosphorus and strychnia.

After remaining a week or so in the hospital, the patient left. Since his return home, I have heard that the disease is rapidly spreading, no effect being produced by the electricity.

The history of the case has been published on account of its being typical of this rather uncommon disease. The cause was probably the exposure to wet and cold. There was no history of hereditary taint. According to some authorities, the disease runs a more rapid course when it is brought on by exposure. The history of this case would seem to confirm this opinion.

SUPERFICIAL TUMOURS.

(FIBROMATA ?)

[Reported by DR. WATT.]

M. E., æt. 32, baker, came to the hospital during March, 1880. He is married, and has a family of three children, all healthy, and has been quite healthy during most of his life. He has never had any serious disease except typhoid fever about two years ago, and small-pox when a child. He has never had any venereal disease, and there is no evidence of his having any.

The tumours which now appear on his body have been coming on for the last ten years. The first one noticed was on the inner side of the left forearm, about three inches from the elbow. It is now about the size of a horse-chestnut. He has seven smaller tumours on the same arm. They appeared most on the right arm, then on the thighs, and afterwards on the abdomen. Those on the arm give him no inconvenience, but those on the thighs and abdomen cause some pain. There is a kind of numb feeling, as if after a cramp, which affects the region of the abdomen but not the thighs. The tumours on the thigh have been coming on for the last five or six years. He knows of no hereditary disease in his father's family.

The tumours, with two or three exceptions, are freely movable under the skin, apparently existing in the subcutaneous cellular tissue.

The patient is a strong, healthy-looking man. Body well nourished. Digestive and urinary systems are healthy. Pulse 76.

On the left forearm there are eight tumours, from the size of a horse-chestnut to the size of a small pea; on the inner side of the left arm, two; and on the right, four or five.

There are none on the right arm. On the left thigh there are ten, principally on the anterior aspect; on the right thigh, six, occupying about the same relative position. On the abdomen there are nine tumours—six on the anterior aspect and three posteriorly. There are altogether between forty and fifty tumours on the various parts of the body.

The tumours are, generally speaking, symmetrical, occurring in corresponding places on each side of the body. On the thighs they are not so freely movable under the skin as on the arms.

There is some induration of the lymphatic glands of the neck. None of the tumours exist in the situation of the larger lymphatic glands.

The patient is quite confident that the tumours are slowly but steadily growing. They are hard in consistence, with two or three exceptions. So far, we have not been able to procure one for microscopical examination. It is impossible without such examination to make a diagnosis; but, from such evidence as we have, I would be inclined to consider them fibromata.

The treatment consisted mainly of the internal administration of potass. iodide. This remedy did not produce any decided effect in lessening the size of the tumours. They were, however, rendered somewhat softer by it.

There is no enlargement of the liver or spleen, and no excess of white corpuscles in the blood.

THE CÆSARIAN SECTION.—We take from a letter from Belgrade the following delivery: operation *curiosum*.—"Not far from the Servian border, in Prischina, could a woman, notwithstanding three days' severe pains, not give birth to her child. In desperation her husband seized a razor, slit up her abdomen, removed the child, and—let a neighbour woman sew up the wound in the abdomen. And the best about it is, that now, after some months, both mother and child are completely well." The chief physician of the district, Dr. V. Gjongjevic, to whom we are indebted for this communication, adds, that "the whole affair has been investigated by the organs of the police on the frontier, and officially determined."—*Wien. Med. Wochenschrift*, 27th March, 1880.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

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

TORONTO, JUNE, 1880.

THE UNIVERSITY OF TORONTO.

The absence of any manifestation of an active, living interest on the part of a large proportion of the graduates of the University of Toronto in her vital condition and affairs has for a long time past been most remarkable. And perhaps the cause is not far to seek, if we call to remembrance the inordinate lack of interest in, and disregard or obliviscence of, her alumni after they have passed from her fostering care, which so long characterized those who govern her destiny and direct her ways. Old things, however, have passed away, and a new era, of better prospects, seems about to dawn upon us. The principle which asserts that, *ceteris paribus*, the alumni and graduates of the University have the first claim upon her consideration, and the honours and distinction which that consideration confers, is growing apace amongst the powers that be; and members of Convocation, and of the Senate too, are awakening to the fact that the proceedings of the Senate must be made public. The last meeting of Convocation, was probably the most influential and successful congress of graduates that has hitherto been assembled; and its success is a gratifying earnest of a similar result at the next meeting, on the 7th instant, at which several important topics which were then on the agenda paper, but whose consideration had, for lack of time, to be deferred, will be discussed. We were grieved to observe, as we have likewise been on former similar occasions, that amongst many graduates in arts, and members of the legal fraternity especially, the medical

graduates are not generally received with that cordiality and favour which the bonds of fellowship ought to enclose. The reason for this we fain would have some one tell us, for it is not apparent on the surface. If the members of the lower faculty be inflated with a sense of self-superiority, we can only point out that many of the medical graduates are also graduates in arts; some hold literary degrees from kindred institutions, and others, although devoid of the literary hall-mark of any University, are men whose general culture is not inferior to that of others so distinguished. Rather, however, than have these real or fancied disabilities continued, we would venture to suggest three alternative remedies, to wit:—Let the arts degree be deemed and held an indispensable pre-requisite, as it is in France (the baccalaureate of letters or of science), to entrance upon the medical curriculum; or, let the arts matriculation examination be substituted for the medical, and a special course of two or three years' training in science, and especially the scientific subjects pertaining to medicine, with a final certificate or degree conferred upon examination, be enjoined upon and required from all entrants into the medical faculty; or, lastly, let the standard of the medical matriculation examination be at once raised to a full and fair equality with the measure of general culture usually supposed to be attested by the arts degree, plus a proficiency in the special scientific subjects now regarded as ancillary to the study of medicine. In the interests of the medical faculty especially, and of the University at large, we think the Senate would do well to ponder on some such course. In the meantime, although we dare not venture to affirm of the University of Toronto, as has been so truthfully asserted of the University of London, that her medical graduates have been the chief authors of her fame, yet we are bold to aver, without fear of contradiction, that the medical alumni of our *alma mater* will, at least, do her no discredit; and we trust the day is not far distant in which, if the changes we have indicated be effected, she may properly be found addressing them as, "O! et presidium, et dulce decus meum!" Of one thing we are certain: if the day of trial and misfortune be not (as some, not altogether pessimistic, are wont to

predict) far off, the medical graduates of the University will be found—and their influence in the country is not small—foremost at the outposts of defence, the most faithful of her bulwarks, the most dutiful of her sons.

We trust that all whom our present voice can reach will not fail to rally at the signal now sent forth for a grand gathering of graduates on the 7th instant, to renew the memories and fond associations of "auld lang syne," and to talk together in a brotherly way of the present health and future welfare of our dear young *alma mater*.

SUMMER COMPLAINT IN CHILDREN.

The season of disaster among the infants is even now upon us, and the bulk of the physician's practice during the next few weeks will be in caring for the bowel complaint of children. Doubtless the vast majority of these complaints are directly traceable to errors in diet. The physiological fact is unknown to the vast majority of mothers, and is forgotten or disregarded by very many physicians, that the infant, before it has its teeth, does not secrete saliva in sufficient quantity for the digestion of starch food, and the consequence is the general prevalence at this season of infantile diarrhœa. Cow's milk, next to that of the mother the most natural food for the child, very rapidly sours during this weather, unless greater precautions are taken than is generally possible, and it thus becomes a fruitful cause of trouble. What is wanted is a food which shall obviate the objection to both farinaceous or starchy preparations and milk. With such a food in the hands of mothers, disease and death among the children, at this season particularly, would be largely reduced. It remained for Liebig to prepare a formula for such a food, and many physicians can testify to its success. It is easy to understand, however, the difficulty in the way of preparing this food by the general practitioner, and it is with pleasure we note the fact that Horlick's Food for Infants, which is prepared after Liebig's formula, can now be had at most of the drug stores. We have found that little else is required in many cases of summer complaint, than to place the child on this food as its exclusive diet.—*Michigan Medical News*.

Book Notices.

The Problems of Insanity. By GEORGE M. BEARD, A.M., M.D., New York.

Announcement of Pickering College for the year 1879-80.

Lecture on Pain and Anesthetics. By LAWRENCE TURNBULL, M.D., Philadelphia.

Modern Abuse of Gynecology. By CLIFTON E. WING, M.D., Boston.

Diseases of the Maxillary Sinus. By EDWARD BORCK, M.D., St. Louis, U.S.

Annual Announcement of the Medical College of the Pacific—San Francisco, Session of 1880.

The Prospective Advantages of Baltimore as a Medical Centre. By JOHN VANBIBBER, M.D.

Third Report of the Pennsylvania Free Dispensary for Skin Diseases, Nov. 1, 1878, to Jan. 1, 1880.

Electricity in Medicine and Surgery. With Cases to Illustrate. By JOHN J. CALDWELL, M.D., Baltimore.

A Case of Intra-Ovarian Pregnancy, with Post-mortem Examination. By TALBOT JONES, M.D., St. Paul, Minn.

Ethylization: The Anæsthetic Use of the Bromide of Ethyl. By R. J. LEVIS, M.D. From the *New York Medical Record*.

The Abuses of Medical Charities. By M. P. HATFIELD, A.M., M.D., Chicago, and ROSWELL PARK, A.M., M.D., Chicago.

Valedictory Address to the Class of the Jefferson College Quiz Association. By JOHN V. SHOEMAKER, A.M., M.D., Philadelphia.

Thirty-first Annual Report of the Trustees of Indiana Hospital for the Insane, for the year ending October 31, 1879.

Alcohol in Health and Disease. By R. M. BUCKE, M.D., London, Ont. Read before the Dominion Medical Association at London, in Sept., 1879.

Consideraciones sobre la Estadística de la Enagenacion Mental en la Provincia de Buenos Aires. Por los doctorès Lucio Melendez, Emilio R. Coni.

Sea Sickness: Its Nature and Treatment. By GEO. M. BEARD, A.M., M.D. New York: E. B. Treat, Broadway.

This little book of 72 pages, issued in popular style and treated in a quasi popular manner, will perhaps repay perusal by those members of the profession who have leisure for such literature. The author gained his experience in the American Navy, and falls completely foul of Mr. Crochley Clapham and his nitrite of amyl treatment. The therapy he proposes is bromization, as he terms it, the system being brought under the influence of the bromides two or three days before sailing. There are practical hints scattered throughout the book which, being the outcome of actual experience, will doubtless prove of service to those who are compelled to put them to the test.

Modern Medical Therapeutics: A Compendium of Recent Formulae. By GEO. H. NAPHEYS, A.M., M.D. 7th Edition, enlarged and revised. 1880. Philadelphia: D. G. Brinton; Toronto: Willing & Williamson.

The interests of a book whose popularity has been attested by the attainment to a 7th edition will not be greatly affected by the favourable or unfavourable comments of a reviewer. Of the work before us we can sincerely say that it is good—it is excellent—of its kind, but that kind is execrable. We know of nothing so likely to produce a generation of slipshod, slovenly, symptom-treating practitioners as ready access to cut-and-dried formulæ set opposite a list of symptoms and a nosological catalogue.

The temptation to avoid the trouble of a diagnosis is exceeding great; and the search for and removal of a cause is not to be thought of; even the occasion for sufficient mental

labour to compose a prescription is removed, and the practitioner becomes a walking compendium of symptoms and formulæ of the dangerous properties of whose ingredients he is probably equally as ignorant as of their rightful use.

With the formulæ themselves we find no fault, and they bear with them the endorsement of some of the best names in the profession. Could the book be restricted to its proper sphere and legitimate use for occasional reference, it would doubtless prove of much utility and service.

Reynolds' System of Medicine. Volume II.

Philadelphia: Henry C. Lea's Son & Co;
Toronto: Hart & Rawlinson.

The second volume of the American reprint of this exhaustive work on the Practice of Medicine has been received. Like the first volume, it places within the reach of the profession all the matter of any value, up to the present time, that is to be found upon the subjects discussed, and at an extraordinarily low price.

The various local diseases, the consideration of which was commenced in the first volume, are disposed of in the second.

The diseases of the thoracic organs then come under review. In every part of this most important subject, the editor seems to have spared no pains in endeavouring to secure the views of the most advanced and intelligent thinkers; and he may fairly be congratulated upon the excellent success which has followed his efforts. We have gone over the article on Pneumonia with considerable care. In all particulars it is a most excellent and valuable compendium of the literature of the subject, as well as a very intelligent expression of the author's own views. We are pleased to note, in connection with the various forms of treatment mentioned, that the author, while not altogether ignoring the efficacy of some of the plans recommended, is not disposed to give undue prominence to any particular one. Routine, which is to be deprecated in the treatment of all forms of disease, receives small encouragement at his hands. If there be any fault in this part of the article, the one that most strikes us is the small faith placed by the

author in medication as compared with proper nourishment and good nursing; and we are not sure that, even in this particular, he is not as nearly right as any.

The next part of the volume is occupied with the consideration of some of the rarer forms of lung disease, among which are syphilitic affections of the lungs, brown induration of the lungs, cirrhosis of the lungs, and apneumotosis. Lung diseases are then concluded, with very excellent articles on Bronchitis and Pleurisy.

The remainder of the volume is occupied with the discussion of the diseases of the organs of circulation. Upon this part of the work a degree of care has been displayed in furnishing the reader with the very best thought at the disposal of the profession, which is at once creditable to the compiler and of incalculable value in a work of the kind. It may be that monographs upon special topics are in some respects the best; and if so, the value of this entire work is greatly enhanced, for the reason that it is essentially a compendium of monographs. For instance, the "weight and size of the heart" are discussed by Dr. Peacock, an eminent authority upon the anatomy, physiology, and pathology of that organ. The position and form of the heart and great vessels is then discussed by Dr. Sibson. "Lateral or partial aneurism" of the heart is then discussed by Dr. Peacock. And so, in like manner, the greatest pains have been taken to obtain not only the most recent, but the best thought on all the various questions relating to diseases of the organs of circulation.

Without reference to the question of copy-right, this American reprint is a great boon to the profession.

Our Homes. By HENRY HARTSHORNE, A.M., M.D., formerly Professor of Hygiene, Univ. Penn., etc. Philadelphia: Presley Blakiston, 1880.

This is Number IX. of the "American Health Primers." The first five chapters have the respective headings of "Introduction," "Situation," "Construction," "Light," and "Warmth."

The chapter on "Ventilation," and the plates on p. 68 illustrative of the movements of cur-

rents of air, we would commend to those who think that in winter as well as in summer the warm air of our rooms should be sent off post haste through openings at the ceiling, before it has had a chance to circulate throughout the room.

We cannot understand what our author means when he says, on p. 53, "A man, by his breath, will spoil in twenty-four hours about three hundred and fifty cubic feet of air" On p. 56 he allows the man "1,000 feet air space," with "air changed about four times in an hour"—i.e., 4,000 feet in an hour; and we would suppose this to be allowed because he "spoiled" just that much in the hour before. (3,000 feet per hour is allowed by most authors.) We have tried to make 350 feet tally with the amount of Carbon Dioxide ($\frac{1}{6}$ of a foot per hour) given off; and also with the actual amount passing in and out (tidal air) of the lungs, but we cannot make it out.

Under "Water Supply" the author hits our city wells, but not half hard enough; but when he comes to the chapter on "*Drainage*" he does them full justice by giving Teale's graphic plate, in which are represented a well receiving liquid filth from an adjacent cesspool, and a man drinking the mixture with great gusto. This plate will touch the chords of memory in some of our friends of the Hamilton Asylum.

We are glad to see laid down a system of drain ventilation which is not laid down in our more pretentious text-books, but which has been advocated for some years by some of our lecturers on Sanitary Science. This consists of a "U-shaped arrangement" of two pipes ascending up to, or above, the roof, one from each end of that portion of the drain which is within the house, one of these pipes being the soil pipe extended up through the roof, and the other a special ventilating pipe. This arrangement gives two counter openings for the passage of air at the opposite ends of the drain, and there is a constant sweep of air down one pipe through the drain and up the other. We are surprised that Dr. Hartshorne should have given any countenance to Wilson's blunder of calling the hand hole of a cleansing trap a ventilation pipe (Fig. 29).

We join, of course, with all sanitarians and philanthropists in endorsing the appeal of our author to Governmental and Municipal authorities to aid and assist in combating the causes of disease. If human life is of any value to the State or community, the State or community might just as well adopt the means for defence and protection which can only be obtained by united action and authority. The book is written for the improvement of the general public, who will do well to read, mark, learn, and inwardly digest its contents.

Meetings of Medical Societies.

RETIRING ANNUAL ADDRESS OF THE PRESIDENT OF THE TORONTO MEDICAL SOCIETY.

BY JOSEPH WORKMAN, M.D., TORONTO.

GENTLEMEN,—In conformity with the requirements of your constitution, the duty now devolves upon me of presenting a summary recapitulation of the progress of the Society during the year now closing—the second of its existence.

It is most gratifying to me, as I am sure it must be encouraging to you, that I am able to compliment you not only on the extent and useful variety of your proceedings, but also on the social propriety and strict professional decorum with which they have invariably been conducted. I feel persuaded that, as regards both the quality and the amount of your work, this Society would bear favourable comparison with some of those in far older and larger cities, and the hope of your successful progress entertained by me at the outset of your career has now grown into a settled conviction of your enduring vitality.

It is indeed true that several of our professional brethren, whose enrolment in our membership would have been most acceptable and encouraging, and no doubt most profitable to our infantile organization, have failed to avail us the privilege of their fraternization; I trust, however, the time is now past when the identification of these gentlemen with our enterprise can be regarded as of sustaining vital importance, and I would fondly hope that you now feel imbued with that spirit of self reliance which is the basis of all co-operative success, and is the inspiring incentive to all vigorous effort.

Abundant proof of the successful progress of your Society would be made apparent by a full recapitulation of the proceedings of the past twelve months; but the rehearsal, however pleasing to me, and gratifying to you, would be too lengthy for the limits of a presidential valedictory. I shall therefore mainly confine myself to some brief notices of the various papers kindly presented by members during the year, the records of which have been so ably and

faithfully made by your painstaking, punctual, and very zealous recording secretary, by whose politeness I have been enabled to gather the following abstracts in this relation.

At the meeting of 15th May, 1879, a very instructive demonstration, illustrated by appropriate drawings and apparatus, was given by Dr. Oldright, on the highly important subject of the deleterious influence, in dwellings, of sewer gas. This subject was ably followed up by Dr. Oldright, at the subsequent meeting of the 29th of same month, and I doubt not it commanded the serious consideration of all who had the pleasure of listening to Dr. Oldright's lucid and able exposition of the evils resulting from this class of structural domestic arrangements.

On 12th June, in the absence of any forthcoming paper, the President read a translation of the notes of the Extirpation of a Tumour on the Neck, published in a South American journal.

On 10th July, Mr. Monk, an honorary member, read a very interesting paper on the Relation between Health and Weather, in which he showed the great importance of a rational and comprehensive system of regular records and statistical returns in relation to this desirable object.

On 28th August, Dr. Nevitt read a paper of similar purport to the preceding.

On 25th September, Dr. Adam Wright read a valuable paper on Hypertrophy of the Prostate Gland, which led to much instructive discussion, and certainly made serious impression on the senior members present.

On October 9th, Dr. McPhedran gave a paper on Cystitis, which was characterized by his usual well-known ability.

On October 3rd, the Society were entertained by Dr. Alt, on the subject of Tumours in the Anterior Part of the Eye, other than epitheliomata.

On November 6th, Dr. Graham read a paper on the rare form of disease called *Morphea*, which was regarded by the Society as a valuable contribution to the department of dermatology, and led to instructive discussion.

On November 20th, Dr. Wilson, a zealous country member, read a practical paper on

Anæmia, in which he evinced an intimate knowledge of the class of morbid affections related to this constitutional condition. He was followed by Dr. Riddel, who read a paper on Smallpox, in which much valuable clinical and statistical information was given.

On December 4th, Dr. Temple, whose presence we could all desire to have been more frequent, read a paper on The Use of the Long Forceps. This paper elicited a very instructive and free discussion, in which its author bore no weak part, and acquitted himself with that frankness and clearness of diction which all who know him well know to be his constant characteristics.

On January 15th, 1880, the President read a printed paper, published by Dr. A. Robertson, of Glasgow, on "*Some of the Pathological and Physiological Relations of Brain and Mind*," &c., &c.

On January 29th, Dr. Covernton read a valuable paper on "Perforating Gastric Ulcer," which merited the earnest consideration and thanks of the Society.

On February 12th, Dr. Gahan read a very useful paper on Pyæmia, which was equally indicative of his discreet research and his extended professional erudition. Junior members of the profession may not appreciate such industrious productions so warmly as those of advanced years; yet I venture to say, that a writer who reproduces much that is truly good and sound is a better contributor to true science than one who dilates in original crudities or random hypotheses.

March 11th, Dr. Robinson treated us to a disquisition on a disease with which he gives adequate proofs of no slender professional, though of course not personal, intimacy,—Gonorrhœa, to wit:—as Dr. R. led us to believe that he was treating of a malady of which his clinical observance has been extensive, it is to be hoped he will favour us with a further exposition of his views on a very important kindred malady before another anniversary comes round.

On March 11th, we had the gratification of hearing a very suggestive paper from Dr. White, on early abortions, which was well received and profitably discussed.

On April 8th, Dr. Daniel Clark read a very interesting paper on "Brain Lesions," the materials for which were mainly derived from his own field and hospital observations in the late American civil war. Though the general tenor of this paper appeared almost completely to supersede the notion that mental integrity is in any way linked with cerebral condition, Dr. Clark declined to express any decided views on this important question. It is, however, to be hoped that he will on some future occasion feel disposed to enounce more clearly those convictions to which his collated facts appeared so definitely to point.

On 22nd April, Dr. Macdonald read a paper on Epithelioma Uteri, which was listened to by a full audience with marked attention, as its merits well deserved, for it was manifest that its author had not approached his subject without previous extensive research. In the discussion which the paper drew forth, Dr. Osler, of Montreal, who was present, in response to the request of the President, took a part, and was warmly greeted by the meeting.

This paper was the closing one of the year, and it certainly was no slovenly completion of your work. The manner in which Dr. Macdonald acquitted himself on this occasion was well calculated to lead the Society to entertain sanguine expectations of his future contributions, and it is sincerely to be hoped we shall yet stand largely indebted to his zealous industry.

I could wish that, within any moderate limits, I might recapitulate the other proceedings of the Society under the heads of "*Pathological Specimens*," and reports of "*Cases in Practice*." I must, however, restrict my remarks to the simple statement that both these contributions have been truly liberal and rich; and it is my conviction that every member who has been a regular attendant will promptly and cheerfully corroborate my words, whilst all will join with me in tendering our warm thanks to the gentlemen who have, in these respects, so generously contributed to our instruction; and as gratitude has been said to consist in a keen appreciation of future favours, let us hope that our good friends will endeavour to sustain us in the cultivation of this laudable virtue, by a

munificent prolongation of their kind attentions.

It now, gentlemen, devolves on me to tender to you all my most sincere thanks for the honourable position in which your kindness has kept me placed during the past two years; and I most frankly entreat you to believe that in declining nomination for a third time, I have been actuated by no other feeling than an earnest desire for your abiding prosperity. That I regarded the occupancy of your Presidential chair as no trivial honour, and no equivocal manifestation of your esteem, I feel assured you will all firmly believe; but my very appreciation of the honour of the position has been the chief cause of my determination to vacate it for the elevation of a successor,—for I have ever been an opponent of monopoly, and I regard a fair and judicious rotation of honorary distinctions as an important element of success in all co-operative organizations.

To my successor (whose election, I would venture to express the hope, will be by unanimous vote), I promise my most cordial and full support; and from all I have myself experienced at your hands, I am emboldened to pledge the same on your behalf.

ATROPIA IN SPERMATORRHOEA.—Dr. Stephanides had under his care a case of progressive muscular atrophy with beginning bulbar paralysis, complicated by profuse and rebellious spermatorrhœa. As the latter symptom could not be attributed to a condition of irritation in the genito-urinary passages, it seemed likely that relaxation and dilatation of the ejaculatory ducts had occurred as a result of irritation of that portion of the spinal cord which presides over the formation and evacuation of sperm. Regarding the condition of affairs as comparable to that found in salivary hypersecretion resulting from bulbar paralysis, it seemed likely that atropia, which proves useful in this disorder, should also be beneficial in spermatorrhœa from the same cause. Atropia was, therefore, administered in solution in the dose of $\frac{1}{100}$ gram every evening. In three days the spermatorrhœa was arrested, and in a very short time entirely cured.—*Jour. des Sci. Med.*, 1880, p. 36; from *Wiener Med. Presse*.

Miscellaneous.

TORONTO SCHOOL OF MEDICINE—SCHOLARSHIP MEN.—The Christmas and April Examinations of this School conjointly resulted in the following award of scholarships:—1st Year, W. J. Robinson; 2nd Year, J. F. Duncan; 3rd Year, J. H. Duncan; 4th Year, Peter H. Bryce, M.A.

TRINITY COLLEGE EXAMINATIONS.—The following gentlemen recently passed the final examination for the degree of M.B.:—Gold Medalist, J. McWilliam; Silver, D. M. Martin; Certificates of Honour—W. Beatty, L. B. Clemens, H. W. Smith, R. Patterson. Passed—Bentley F. Boyd, W. W. Brownlee, M. Cattermole, F. Hatton, E. F. Hunter, J. A. Island, R. L. Jones, G. P. Lundy, F. B. McWilliam, R. McIntosh, G. A. C. McNaughton, J. A. McTavish, D. McPhatter, N. L. Patterson, R. Shaw, J. E. Shaw, J. M. Wilson, S. E. Wilson, R. Spence, C. F. Smith.

THE ACTION OF ALCOHOL.—An interesting series of experiments on the physiological action of alcohol in its relation to animal heat, and its influence upon the vasomotor nervous system, has been carried out at the West Riding Asylum by Dr. Bevan Lewis.—(*Journal of Mental Science.*) The conclusion, as regards alcohol, is in direct antagonism to the view that in very large doses it lowers temperature by directly checking tissue metamorphosis. The characteristic action of alcohol is to greatly increase the production of heat, whilst dispersion of the freshly-formed heat is facilitated by peripheral vasomotor paresis. It is only in very small doses that we get a temporary lowering of heat-formation.—*London Lancet.*

COLLEGE OF PHYSICIANS AND SURGEONS—LIST OF SUCCESSFUL CANDIDATES AT THE MATRICULATION EXAMINATIONS.—The following candidates passed the Matriculation examination, before the examiners of the College of Physicians and Surgeons of Ontario, at the last examination:—Wilson, J. D.; Bowman, Amos F.; Gush, Norman B.; Anglin, W. G.; Disney, Henry C.; Coal, J. A.; Cowan, John F.; Ferguson,

John; Sangster, Alexander; Webster, E. Harvey; Wood, Edward G.; Kilgour, Peter T.; Cochrane, Chas. E.; Lauder, T. H.; Crosby, Archibald W.; Tracy, Albert F.; Hislop, Robert; Lake, Andrew D.; McMichael, James; Jaques, William; Cameron, Duncan A.; Elliott, Adam G.; Lundy, Fred. G.; Wright, Walter Henry; Kennedy, William; Holmes, Edward S.; McGillivray, Mrs. F. S.; Christie, Andrew; McCullough, James H.; O'Brien, Tim.; Martin, J. Francis; Coleman, Mary E.; Staebler, D. M.; Smith, Robert S.; McPhail, Duncan P.; Shoults, George; Leitch, A. L.; Duncombe, Chas. E. B.; Fahey, Thomas H.; Johnston, James F.; Porter, Thomas; McGhie, George S.; Robinson, T. H.; Moore, Thomas A.; Bascom, Horan; Hoople, E. M.; Barber, Robert A.; Davis, T. B.

TO THE PROFESSION.—In order that clearer light may be shed upon some important and still unsettled questions, and for the purpose of adding to the completeness of this work* in

*The Hypodermic Injection of Morphia. By H. H. Kane, M.D., New York.

subsequent editions, the author requests members of the profession *everywhere* to answer the following questions at once:

1. In how many cases of delirium tremens, in what doses, and with what result, have you used morphia hypodermically?
2. Have you used the drug in this manner in acute inflammatory affections of the respiratory organs, and with what result?
3. Have you used it in acute or chronic renal disease, and with what result?
4. Do you know of any deaths due to the subcutaneous injection of morphia? If an autopsy was held, please state the result.
5. Have you had any serious cases of narcotism from the use of morphia in this manner? If so, please state the condition of the pupils, number of the respirations and pulsations, the amount of morphia used, whether there was any known organic disease, and whether there was any opium idiosyncrasy.
6. Have you had any cases where the drug was thrown directly into the blood? What were the symptoms and what the treatment?
7. In what diseases have you used this method of administering morphia, and with what results?

All communications will be considered strictly confidential, the reporter's name not being used when a request to that effect is made.

UNIVERSITY OF TORONTO.—*Medical Examinations—The Successful Candidates.*—The following is the list of successful candidates for the recent medical examinations in the University of Toronto:—*Candidates for M.D.*—Hamilton, C. J.; Lesslie, J. W.; McCarroll, J.; O'Neil, E.; Park, T.; Pyne, R. A. *Honour List: First Examination.*—Anatomy—Class I.—1, Meldrum; 2, Robinson. Biology—Class I.—1, Robinson, 2, Davidson. Chemistry and Natural Philosophy—Class I.—1, Robinson, 2, Meldrum. Class II.—Clarke. *Second Examination.*—Anatomy—Class I.—Wallace. Class II.—1, Ferrier and Duncan (equal); 3, Montgomery; 4, Ferguson. Physiology.—Class I.—1, McMurrich; 2, Johnston; 3, Wallace and Duncan (equal); 5, Cleland. Class II.—1, Kent and Eastwood; 3, Woolverton; 4, Milroy and Knill; 6, Lafferty; 7, Hanbidge and Montgomery (equal); 9, Ferrier. *Materia Medica and Therapeutics.*—Class I.—Ferrier and Wallace (equal). Chemistry.—Class I.—1, Ferrier; 2, Cleland; 3, Wallace. Class II.—1, McMurrich; 2, Duncan. Histology.—Class I.—1, Hanbidge; 2, Duncan; 3, Pantou; 4, Milroy; 5, Ferguson, Montgomery, and McMurrich (equal); 8, Eastwood; 9, Ferrier; 10, Wallace; 11, Knill; 12, Cleland. *Third Year.*—Medicine.—Class I.—1, Duncan; 2, Mearns. Surgery.—Class I.—1, Duncan; 2, Mearns. Midwifery.—Class I.—1, Duncan; 2, Mearns. Med. Jur.—Class I.—1, Duncan; 2, Mearns. Comp. Anatomy.—Class I.—1, Duncan; 2, Mearns. Chemistry.—Class I.—Duncan. *Candidates for M.B.*—Anatomy—Class I.—1, Cross; 2, Bryce and Fisher (equal). Class II. 1, Ferguson; 2, Welford. Physiology—Class I.—1, Cross; 2, Ferguson; 3, Bryce; 4, Fisher. Class II.—Welford. Medicine.—Class I.—1, Welford; 2, Ferguson; 3, Cross; 4, Bryce; 5, Fisher. Surgery.—Class I.—1, Cross; 2, Bryce. Class II.—1, Welford; 2, Ferguson; 3, Fisher. Obstetrics.—Class I.—1, Welford; 2, Bryce; 3, Ferguson; 4, Cross. Class II.—Fisher. Therapeutics—1, Bryce and Cross (equal); 3, Ferguson; 4, Fisher. Class II.—Welford. Chemistry.—Class I.—1, Cross; 2, Bryce. Class II.—Ferguson. Medical Jurisprudence—Class I.—1, Cross; 2, Bryce; 3, Ferguson and Welford (equal). Class II.—Fisher. Botany.—

Class I.—1, Bryce and Ferguson (equal); Cross. Class II.—Welford. Pathology. Class I.—1, Cross; 2, Ferguson; 3, Fisher; Bryce; 5, Welford. *Medals.*—University Gold Medal—Cross, W. J. University Silver Medal—1, Bryce, P. H.; 2, Ferguson, J. Starr Gold Medal—Cross, W. J. Starr Silver Medal—Bryce, P. H. *Scholarships.*—First Examination—Robinson, W. J.; Second Examination—Wallace, R. R.; Third Year, Duncan, J. H.

APPOINTMENTS.

Stephen Wright, of the city of Ottawa, Esq., M.D., to be an Associate Coroner in and for the county of Carleton.

Rodney Harrison Abbott, of the Village of Stony Point, Esquire, M.D., to be an Associate Coroner in and for the County of Essex.

John Munro Forbes, of the village of Condonia, Esq., M.D., to be an Associate Coroner in and for the county of Haldimand.

Duncan McFayden, of the village of Charlton, Esq., M.D., to be an Associate Coroner in and for the county of Peel.

William S. Fraleigh, of the village of Grenville, Esq., M.D., to be an Associate Coroner in and for the united counties of Leeds and Grenville.

John S. Loomis, Esquire, M.D., to be a License Commissioner in and for the Licensing District of North Hastings, in the room of Thomas Cross, Esquire, resigned.

Dr. Charles Sheard has been appointed Lecturer on Histology and Botany, and Dr. O. Ryerson has been appointed Lecturer on the Diseases of the Eye and Ear in the Toronto Medical School, Toronto.

Births, Marriages, and Deaths

BIRTHS.

At Thistleton, on the 18th of April, the wife of Dr. Savage of a son.

MARRIAGES.

At Hamilton, on April 21st, Wm. Irving, M.D. of Exeter, to Miss Isabella Fletcher.

At St. Thomas, on April 24th, R. M. Eccles, M.D. of Blissfield, Michigan, to Carrie, youngest daughter of John Pritchard, Esq., of Lucan, formerly of Catharines.

DEATHS.

At the Army Medical Depot Hospital, England, on March 25th, Surgeon-Major A. P. M. Corbett, M.D. late Surgeon Prince Consort's Own Rifle Brigade, eldest son of the late Sheriff Corbett, of Kingston