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THE
CANADA LANCET,
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Original Communications.

PHENOMENA OF LIFE MAINTAINED AND CONTROLLED BY TWO ANTAGONISTIC PRINCIPLES OF INNERVATION.

(Continued from April Number, 1871.)

"For he who studies nature's laws
From certain truths his maxims draws."

BY J. G. FREEL, M.D., MARKHAM, ONT.

The design of a medical journal is not only to disseminate practical information among the members of the profession, but to create at the same time a desire for scientific investigation. To accomplish this double object a generous criticism is an indispensable requisite. To allow all the productions of correspondents to go unchallenged is, in a measure, to tacitly acquiesce in their correctness, and thus, possibly, in some instances, to mislead the inexperienced. In this respect, the report of "Barbarous treatment by a Midwife" deserves a passing notice. The propriety of the course adopted by the medical attendants is rather more than questionable. Turning is always formidable,

involving a mortality to mothers of one in fourteen; while chloroform, when the patient was already "nearly unconscious," greatly increased the danger without in the least facilitating the indicated operation. The child being dead beyond doubt, prompt ovisceration and delivery with the crotchet would have afforded to the mother the greatest possible chance for life. Reports without *post mortem* examinations are unsatisfactory, it not absolutely valueless. The true cause of death in this case must ever remain a doubt. Was there injury or partial rupture of the uterus, caused by turning, or was the system too enfeebled to be able to rally fully from the anæsthetic state? Certainly the "getting up," however reprehensible, is scarcely sufficient alone to account for "fatal collapse, or the formation of clots in the heart."

In the April No. of the *Lancet* the author of "*Phenomena of Life*" solicited a critical examination; but neither the Editor, himself a respectable author and an eminent teacher of physiology, nor any one of his learned correspondents has, as yet, deigned to notice the subject. Surely the question, though emanating from an obscure source, ought to be considered sufficiently important to the advancement of medical science to merit a careful investigation. So deep and universal has been the impression that a beneficent Creator, who has assigned definite laws for the government of the universe, would not have left man, the only portion on which he has stamped the divine image, to the operations of mere chance, that philosophers, in every age have invented theories designed to explain the "*animating principle*." The hypothetic "*Entity*" of Aristotle, and the "*Materia Vita*" of Hunter, with all intermediate shades of conjectures, aim at explaining vital action by some mysterious agent, which is in a measure, independent of the organism itself. It is evident that an organic system, to be perfect, must contain within itself some principle of action capable of maintaining and regulating its operations, and as every piece of mechanism from the Great Architect bears the impress of perfection, we must consider the *vis vitæ* an inseparable part of the being. What philosophers sought for in vain, physiologists explored the human system to discover, and men of science ardently desired to know, is found, as might have been expected, in the simple arrangement of the two nervous systems, admirably adapted to *preside over organic*

functions. The author claims no greater merit than having possessed discernment enough to discover and gather up materials ready formed by the great masters, and strewn broadcast over the pages of medical literature, which, like the blocks for Solomon's temple though hewn and polished in distant regions, when brought together, fit completely into a structure of beauty and symmetry.

Thus the experiments of Bernard, which have been fully confirmed by subsequent investigators, prove to an absolute certainty the existence of a law of antagonistic innervation presiding over capillary function. Extirpation of the superior cervical ganglion produces instantaneous congestion of the corresponding side of the face, with consequent augmentation of temperature, while destruction of the fifth nerve induces exsanguination and consequent diminution of temperature. Now, it is plain from these results that the sympathetic centres contract the capillaries, and that the sentient nerves must contain nerve fibres specially endowed with the power of dilating these vessels, and that the systems of centres normally form an equilibrium of action commensurate with the due performance of organic function. It is also proved by experiments more than sufficiently numerous, that the two systems possess very different degrees of susceptibility, while the cerebro-spinal system responds to the least possible impressing influence, the ganglionic only obeys an intensified action, but when once fully impressed, the action is far more forcible and prolonged. Necessarily then, an impulse is first felt by the more susceptible, which are the capillary dilators, and if an exaltant impression the vessels expand, but if a depressant, they contract, the ganglionic contracting force remaining unchanged till the impress becomes sufficiently intense to exalt or depress their dynamic power, when, their action being more persistent and energetic, overcomes that of their antagonists, and produces partial or complete occlusion of the capillaries, or sinks more rapidly from a depressant influence, leaving the antagonistic dilating innervation unbalanced, and consequently these vessels become everywhere expanded. These phenomena are manifested in all nutritive, therapeutic and morbid influences. The contact of food with sentient ramifications in the mucous membrane of the stomach produces an exaltant impression on the nervous centres presiding over the capillaries

which furnish the gastric glands with the elements from which the solvent is elaborated, and the whole membrane manifests an increased redness, and the gastric juice begins to flow. All the raptotic influence is either exaltant or depressant. The characteristic phenomena of each are fully described in the first article on the "Phenomena of life," and, therefore, need not be here repeated, but morbid action, being always depressant, and consequently inimical to life, requires further illustration. The first influence of morbid action falling on the sensitive dilators, the capillaries are necessarily contracted by the unbalanced force of the ganglionic centres, and as heat is principally generated in these vessels, a consequent diminution of temperature inevitably results, hence the universal sensation of coldness, less or more severe, which ushers in every disease. A convincing illustration of the operation of the law is furnished in the symptoms of concussion. The patient is pale, cold and shivering, and if the shock be severe enough to induce complete occlusion of the cerebral capillaries, the functions of the sensorium are suspended and consequent insensibility results. The *neurometer* here points with unerring precision to the comparative influence of the two antagonistic nervous centres, the vessels of the iris being contracted, are correspondingly elongated, thereby closing in and diminishing the size of the pupil. But when the depressing force of the shock reaches and sends down ganglionic innervation to a level with its antagonistic force, the brain being again supplied by blood, consciousness returns, but should the depressing influence continue ganglionic exhaustion, the appearance of the phenomena is diametrically changed, the surface becoming red, hot and perspiring, while insensibility gradually returns as the inspiring influence of the cerebral ganglia diminishes, the *neurometer* indicating in the expanded pupil the depressed state of the ganglionic force with the consequent preponderance of the dilating, when ganglionic innervation is completely exhausted, animation necessarily ceases.

The phenomena of fever also assume their appropriate place in the demonstration of this universal law. All morbid agencies capable of impressing the nervous centres with the essential characteristics of Fever act as direct depressants. This is manifestly true from the feeling of depression in the forming stage, and the prostration throughout the disease. It is wholly incon-

conceivable how men of great intellect could ever have entertained an opinion that vital action is preternaturally exalted in any disease, and, therefore, required to be depressed. The influence of exalts is indispensably necessary to the maintenance of animal existence. In fact, the human system is a miniature distillery, converting the amylicaceous principles into carbon, hydrogen and oxygen in the exact proportion required for the production of alcohol, which is to be used up in the generation of heat. Hence, the universal appetite among all races of men for stimulants, while depressant influence, being inimical to life, is intuitively dreaded and, if possible, avoided.

The reception of morbid agents into the system at first reduces dilating nervous force, and, as in shock, induces the inevitable chill, the cold stage lasting till the zymotic principle sends down contracting innervation to a level with the dilating, when the system gradually regains its accustomed warmth, but ganglionic force, descending below that of its antagonist, leaves dilating innervation unbalanced, the capillaries are dilated and the surface everywhere assumes a hyperstatic appearance. Circulation and respiration being increased by the preternatural supply of blood to the organs presiding over these functions, a greater quantity of blood, in a given time must pass through the lungs, and more oxygen absorbed than normally, and as the amount of heat evolved is always in proportion to the quantity of oxygen consumed, an elevation of temperature is an inevitable result. In intermittents, decidedly the mildest type of fever, the hot stage is succeeded by the sweating, in which the miasm is eliminated, when a fresh accession of miasm is necessary for the full development of another paroxysm, and the length of time required to depress dilating innervation sufficiently to induce another chill marks the intensity of morbid action, quodians being always more severe than tertians or quartans. It is but reasonable to suppose, all things being equal, that an intermission equal to the first will be required for the development of each succeeding paroxysm.

The very intimate relation existing between inflammation and fever has induced many eminent observers to consider them identical. The only physiological difference consists in the former arising from depression of certain nervous centres alone, while in the latter the depressive influence is general. When

the capillaries are relaxed in any particular part, a determination of blood is, in obedience to a hydrodynamic law, an inevitable result. The vessels having lost their tonicity by greatly diminished, if not suspended ganglionic innervation, become gorged with blood, and the parts present the characteristic phenomena of inflammation, "pain, redness, heat, tension and swelling" The vessels becoming attenuated from excessive expansion, soon allow exudation, with ultimate disorganization. The doctrine that inflammation arises from the "irritation of a stimulus" has led to an error in practice fatal to millions. The very term "irritation" creates an instantaneous sensation of depression. The phenomena produced by the application of an irritant prove incontestably the depressant nature of the impression. When applied to the web of a frog's foot, or the transparent mesentery, and viewed with a microscope, the vessels are seen to contract and the surface become pale, but as soon as the impulse depresses the ganglionic force below its antagonist, the vessels expand and an active state of congestion ensues.

Now it is evident if this be the law, and successful refutation is challenged, that the only therapeutic agent capable of contracting congestion is an exaltant. Nothing herein asserted is required to be taken as proved until it is confirmed by actual application. We have settled the question of treatment to our own satisfaction, and only ask others to fairly do the same for themselves. In our own practice, as well as in that of our former associate, the late Dr. Lloyd, every case of pneumonia or pleurisy when seen and treated in its incipient stage, has been subdued within forty-eight hours by the administration of a powerful exaltant; while in that of a neighbouring practitioner, a regular Rip Van Winkle, who has been asleep for the last half century, and now still swears by the lancet as the *sine qua non* of successful treatment, patients bled *ad deliquium*, lie in *articulo mortis* for several weeks, and too often succumb to the concentric depression of art and nature. A satellite of this great orb of past ages bled a man who had sunken into insensibility in a church, till the patient actually expired under the operation. Some practitioners adhere with such tenacity to old prejudices that they absolutely refuse to investigate any new principle. It is said "comparisons are odious," but they are nevertheless valuable as evidences of success. In a case which was taken as a test, a

blacksmith had injured the palm of his hand, and the whole extremity, in a few hours, became very much swollen, reddened, and excruciatingly painful. We ordered pulv. opi, grs. vi to be taken at once, two 4th year students watched the progress. The patient soon became partially narcotized, and remained in a state of semi unconsciousness for eight hours. The redness and swelling began to disappear gradually, and when he awoke the arm appeared perfectly exsanguated, nor did inflammation ever re-appear in the least. This case furnishes convincing proof of the character of inflammation and of the nature of the counter-acting agent required. A person insensibly intoxicated is pale as death, cold and shivering. In such a state of complete capillary occlusion, congestion is a physical impossibility. We offer with great diffidence to the profession, these proofs of the existence of a general law which animates and controls vital action, trusting confidentially to the impartial judgment of liberal and intelligent judges. The green-eyed prejudices of the days of Harvey and Jenner are happily past forever, we may, therefore, be assured of a critical, but candid and fair review. This article is intended only as an extension of the first, and any review should be of both. Is any one prepared to defend the muscular hypothesis of the iris, and philosophically explain thereby the *modus operandi* of the irian phenomena? Has any one tested the truth of our experiments on the expansion of arteries? Is there no champion ready to couch his lance in defence of the doctrine "*similia similibus curantur?*"

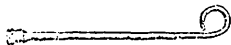
THE SELF RETAINING FLEXIBLE CATHETER.

BY KELLY ADDISON, M.D., FARMERSVILLE.

Having lately seen in your valuable journal reference to the subject of retaining the catheter in the bladder, I most respectfully submit to your readers, with your permission, the method which I have adopted for a number of years past to effect that purpose, and with the most satisfactory results.

I take a common flexible catheter, and with a pen-knife, or a heated wire, make several small perforations in it within the space of about three inches of the point which is to remain in

the bladder. I then arm a common sewing needle with a piece of saddler's silk thread, and making a small knot on the end, I pass the needle through the eye of the catheter and out at its point, drawing the thread out to the knot. I next insert the needle into the upper or pubic surface of the catheter, (if I may so say) about $3\frac{1}{2}$ inches from its point, and with the assistance of a piece of wire, draw the needle and thread through the inside of the remaining portion of the catheter to the ivory ring. Three and a half inches of the thread are thus outside of the catheter, and the end of the remainder hangs out at the ivory ring. I now insert the wire stilet which belongs to the catheter into it, and having given the instrument the ordinary bend, and warmed the portion which is to enter the bladder in water at blood heat, I pass it into the bladder. Withdrawing the stilet $3\frac{1}{2}$ inches, I seize the end of my thread and pull gently upon it, thus causing the portion of the catheter within the bladder to assume the form of a circle having the diameter of one inch. The thread being fastened to the ivory ring, the stilet is now completely withdrawn, and the catheter is prevented from falling out by that part which is in the bladder being bent into a circle. I usually find no difficulty in removing the instrument; by twisting the thread around the stilet, the knot will be disengaged and the instrument may be removed in the ordinary way.



THE FLEXIBLE CATHETER AS IT APPEARS IN THE BLADDER.

The circular bend of the flexible catheter, as above, may also be attained by inserting three inches of the most curved portions of two old watch springs (which may be obtained gratuitously from the nearest watch-maker), through the eye of the catheter. By putting the instrument in water at blood heat, and withdrawing the stilet, the catheter, *self-acting*, will form the required circle. By re-inserting the stilet, the bend in the catheter will be sufficiently removed to admit of the withdrawal of the instrument.

A surgeon is called upon to go a dozen miles to visit a patient who has been suffering extreme pain for many hours from retention of urine; peradventure he has been tampered with, in vain

efforts to relieve him he has already lost ounces of blood; he has a false passage; the surgeon cannot visit him again for a number of days, and there is no one into whose hands he may be intrusted; is it not something to have a method at command upon which the surgeon can depend to continue relief to him for a number of days in succession, or even a week, with entire confidence that there will be no slipping of the instrument, no matter what position the patient may assume, or in what measure he may exert himself?

Again, we see in the hospital some poor fellow lying on his back, with a card at his head announcing a wound of the perineum. He has been there for weeks, perhaps months. When the visiting surgeon comes along, we discover an upright metallic catheter lound to his body with numerous appliances. For him to turn to one side or the other will be accompanied with pain, to sit up in bed or walk a step will be at the risk of the slipping of the instrument out of the bladder, and the contracted bladder rests upon the point of the instrument. Will not the self-retaining flexible catheter, which will not necessitate absolute rest, but allow of bedily motion without inconvenience or risk, be a comfort in such a case?

GANGRENE OF THE LUNG.

BY W. S. CHRISTOE, M.D., FLESHERTON, ONT.

As affections of this kind are very rare, I am induced to publish an account of the following interesting case.—

Mrs C, æt. 30, Multipara, was attacked with premature labor on the 14th of December last. Post partum Hemorrhage was the cause of my being called. When I arrived I found my patient blanched from loss of blood. The ordinary means of cold to the vulva and a good dose of ergot soon arrested the hemorrhage, and left her tolerably comfortable under the circumstances. On the 16th, however, I found her in great fever; setting in after a lengthy shivering fit. My diagnosis was *Weid*, and I treated her accordingly. During the sweating stage she indiscreetly exposed herself, and the result was a fearful attack of pleuro-pneumonia of the left lung. Pleurisy was

easily discovered, but the pneumonia was very insidious and obscure at first; the signs, however, soon became apparent,—the characteristic sputa and chest symptoms placed the diagnosis beyond doubt. My patient being already debilitated, antiphlogistics were out of the question. The stimulating method of treatment was the one I adopted. Ammonia in excess was administered freely, under which the acute stage soon gave way, and nothing remained apparently but exhaustion and hepatization. Every thing promised success; but I was again doomed to disappointment, for bronchitis in the right lung became quite prominent. Ronchus and sibilant rales were present, rendering respiration difficult in the extreme. I pushed the same class of remedies with a firm hand, until once more I began to anticipate a favorable issue; pulse was reduced to 84, and she was enabled to change her position in bed, which for weeks had been principally on the left side.

From this point gangrene of the left lung began to manifest itself. The expectoration increased, with occasional vomiting and diarrhoea; the fœtor was horribly offensive, and the patient almost in a state of collapse. My prognosis was certain death, and that, too, very shortly. Remembering the advice of former days—"never give up"—I ordered stimulants, wine and brandy, and gave her the hypophosphites of soda and lime, alternating with the following mixture:—

R—Quinia Sulph.,	grs. xxx.
Acid Nitro Hydrochlor,	ʒ v.
Tinct. Aurantii,	ʒ ij.
Aqua ad.,	ʒ iv. Ft. Mist.

Sig.—One teaspoonful in water every six hours.

On the 21st of January her case became alarming; I asked for a consultation, and on the following day my esteemed friend, Dr. Gunn, from Durham, came down. Our diagnosis and prognosis were identical. A distinct cavity was located low down, posteriorly in the inferior lobe of the left lung, the superior lobe still hepatized. The treatment from this point was much the same: the quinine was increased to two-grain doses; stimulants were likewise increased,—eight ounces of brandy was ordered in the twenty-four hours, with egg,—wine with ordinary drink

ad libitum. The quinine, however, disturbed the stomach, and it was reduced to the former dose. During the Dr.'s visit, one of her worst fits of coughing occurred, with excessive expectoration; the fetor was so obnoxious, we could scarcely remain in the room. I continued my visits to her, and pushed the remedies, but, I confess, with feeble hopes. On the 3rd inst. I was called in great haste to see her, some other complication was said to have set in, and she was in severe pain. I should not have been disappointed to have found her dead, she, however, only had some bearing-down pains,—nature, probably, trying to restore the catamonia. I made a pretty general examination, and for the first time pronounced her convalescent, pulse lower and fuller, hepatization much diminished, sputa changed, and fetor gone. This announcement served her as a wonderful invigorating tonic, for on February 9th she took a short drive,—contrary, however, to sound judgment. The latter treatment was a simple cough mixture, with the syrup of the hypophosphites, and a tonic composed chiefly of the lactate of iron, under which she is rapidly improving.

REMARKS.—First. This case shows evidently that circumscribed gangrene is not necessarily fatal—notwithstanding the dark picture usually drawn by the books. It is our duty to persevere and hope against hope.

Second. The symptoms might have been given, *in extenso*, but it would only be a repetition of what has been written over and over again. In this case the sputa seemed to be the most characteristic. Dr. Aitkin says the fetor resembles that of newly made lime; and, so far as my recollection goes, he is correct,—when the sputa is moderate and is spat in masses, but when those cavities are emptied by vomiting, and the sero-purulent greenish-like fluid—mixed with small pellets of gangrenous lung—to the extent of eight or ten ounces, the odor of newly-made lime is pleasant in comparison. The odor is, in reality, *sui generis*.

Third. I am convinced her persistent decubitus on the left side very materially favored this state of the lung—the circulation already enfeebled—gravitation would only hasten complete engorgement and congestion, as sometimes occurs in low fevers, and consequent death of the part, the primary materies morbi, of course, being the cause.

Fourth. This case furthermore demonstrates—that is if our diagnosis be correct—that cavities in the lung will heal, corroborating statements, by the late Dr. Rolph and others,—proved by cicatrices having been found in the lungs of subjects in *post mortem* examinations.

Fifth. Another point might be mentioned,—the length of time elapsing between the hepatization and the evidence of gangrene, I presume, about two weeks. It is quite reasonable to suppose that it existed some time before evidencing itself, and that as soon as softening took place, and expectoration commenced, the secret became known.

The complete success of this very interesting, yet complicated case, has taught me never to despair, but to diligently push remedies to the last. But for this she had died, and further testimony would have been added to the fatality of gangrened lung.

CASE OF CATALEPSY.

BY S. S. CORNELL, TOLEDO, ONT.

I desire a small space in your valuable journal for the purpose of recording a case which may prove interesting to some of the young practitioners who are now engaging upon their professional duties, and who have not had the opportunities of witnessing all the mysterious phenomena pertaining to the nervous system so common to be met with in the sick room.

This case, however, is a little out of the common order—one of its kind—that may be ranked as somewhat extreme,—unusual to say the least.

On the 20th of January last I was called to wait upon Mrs. H., adjacent to Frankville, Leeds Co., wt. 30, in her second confinement. The process of labor was of an ordinary character, the patient greatly dreading each successive pain, which was, as she described it, "intolerable to be borne." I found, upon digital examination, the cervix uteri much swollen and tender,—the os uteri extremely sensitive and rigid. Prior to confinement she gave evidence of vague uneasiness for about eight weeks, passing very sleepless nights; restless; troubled dreams; thoughts of impending dissolution; "a yielding up of

all earthly ties;" "a desire to depart and rest with the saints," to use her own language. She, for the most part of the time, felt "as though she neither had any friends nor foes."

I was consulted about three weeks before her accouchement, found her unable to exert herself, as being on her feet tended to aggravate her distress and increase her horror-ness. I ordered her to take some pills, composed of a-stortida and iron at night, and valerianated elixir of ammonia through the day; to use light diet and keep off her feet as much as possible. Under this treatment her sleep was of longer duration, and not as much disturbed with frightful dreams or imaginary evils. So passed away the time until her accouchement.

The first 48 hours after labor was passed quite well, but at this time she experienced a severe chill which lasted over an hour, followed by a sharp febrile movement; pain and tenderness felt upon pressure over the uterus, accompanied with slight tympanitis. The chest sounds were clear, except over the lower lobe of the left lung, which gave evidence of hepatization. The lochia was suppressed, the urine scanty and high colored. There was some delirium, the pulse 148, tongue having a light creamy coating. Mustard sinapisms were ordered over the uterine region, lower lobe of left lung, and to the feet; a brisk cathartic was given, composed of the compound aromatic cassia powder, followed in two hours with an enema containing ol. terobinthinæ. After the aperient action of the medicine was over, she was placed under the following treatment:—puly. ipecac. et opii comp. in suitable medicinal doses, alternated with tr. veratrum viride. Saw the patient next day,—pulse 130; febrile movement abating; patient perspiring freely, not so much tenderness over the uterus as on the former day, breathing not so rapid or laborious; some cough, attended with expectoration of rusty sputa; lochia still suppressed; no secretion of milk; thirst great, and appetite wanting; occasionally some delirium. Ordered continuation of medicine and use of enemata, containing ol. terobinthinæ; sinapisms to be renewed, followed by warm poultices of pulv. ulmus fulva; gave beef tea, and occasionally a glass of port wine, lemonade, &c.

On the 25th saw patient again,—more tranquil; no delirium; not much thirst, skin a little above normal temperature; pulse 98; local tenderness subsiding, lochia slightly appearing; no

secretion of milk; cough light, and expectoration mucus. Patient has had but little sleep; ordered an enema of milk of asafœtida and ol. terobinthinæ; discontinued the veratrum viride, but continued the Dover's powder with Asclepin, wine, beef tea, lemonade, &c.

26th. Found patient much better; pulse 84; rested quite well; felt an appetite; no cough to speak of; lochia profuse; some pain in each mamma; no milk; some tenderness over the uterus; withheld all former medicine; used an enema as before; ordered vaginal injections of warm mucilage, containing a small quantity of carbolic acid; gave beef tea and port wine once in eight hours; as a tonic, the following,—elixir valerianate of ammonia, and syrup. ferriphos. strych. et quinae. ââ ʒ ij., *Pro dosis*,—a teaspoonful once in four hours.

27th. Pulse 78; patient tranquil; a little milk in each breast; no abnormal thirst; soreness everywhere abating; has a desire for food; was allowed coffee, beef-steak, and toast; tonic continued, and also the wine; continued the vaginal wash; lochia yet profuse.

28th. Patient much improved; pulse 73; rested well; feels a desire for food; copious secretion of milk; lochia still profuse; feels weak, but in good spirits; ordered continuation of treatment, and took my leave of patient.

Now comes the sequel. The patient passed the next 48 hours most beautifully, except on the night of the 30th she could not sleep; otherwise the nurse thought she was doing extremely well. A peculiar change was soon discovered taking place with the patient; her acuteness of hearing was extremely great; could hear and reiterate the sentiments of persons in the adjoining room, who conversed, as they declared to me, in a low whisper, and that they conceived it impossible for a person to hear a word whispered six feet from them; yet this patient, at a distance of twenty feet or more, with closed door, could tell the sentiments exchanged. This was done several times, and finally the patient called her husband to her, kissed him; then called her little boy three years old and her infant, kissed them, and then bid her friends adieu. This proceduro of my patient awoke a deep interest in the minds of the nurse and friends, who now became alarmed. The nurse persuaded the friends to leave the room to her and the patient, as she thought after a little Mrs.

II. would fall into a repose; but instead of sleep our patient lay speechless and motionless, with eyes staring wide open, no signs of respiration; they opened her mouth to see if she would swallow, but in vain, her lower jaw remaining depressed as the nurse had left it. Attempts were now made to arouse her by calling loudly in her ear, but to which she paid no attention. They thought her dead, and that it was useless to send for medical aid; thus passed away twelve hours, when her husband dispatched a messenger for me. When I arrived and entered the room I was shocked to see what struck my fancy to be a waxen figure or a frozen corpse in lieu of my former patient. There she lay with under jaw depressed, eyes staring and wide open, without winking, the pupils a little dilated; skin cool, almost the feel of a corpse before stiffening; pulse 122, feeble, no sign of respiration. In examining the pulse I raised the arm to see if that would cause any difference in the pulse. There it remained for nearly an hour, when I put it down by her side. There was but slight resistance offered to any change of her limbs or person; but whatever attitude a limb was placed in, there it remained. I now brought her under jaw up to its place, and it remained. I was importuned to do something for the patient. What to do was, with me, a paramount question. The thought occurred to me that I might administer an enema of strong solution of asafoetida, which I did to the amount of a quart; and this was very easily done, as there was not the slightest resistance. Still the patient lay as lifeless as ever for about an hour, when a few slight convulsive movements were observed, and she aroused to consciousness. She looked about her, asked what had been done with her corpse, as it appeared to her that her friends desired her to remain for a season, but her judgment dictated to her to again depart and take her infant with her. I gave her several doses of asafoetida, fluid extract of valerian, beef tea, &c. She now desired to be left alone, as she said she had an important duty to perform, and the presence of persons, however nearly related, was detrimental to her welfare. She was satisfied for me to remain with her alone, as she said, "from the days of antiquity, deference had always been paid first to the priest and then to the doctor."

She remained quiet for, in all, a period of six hours, taking beef tea, valerianate of ammonia, asafoetida, and bromide of potas-

sium. Soon she drew the sheet over her face, and then placed her arms over her chest, and lay straight in bed; she lay so quiet and still that I felt induced to remove the sheet, when, as I had feared, I found her in a second trance. (?) Eyes wide open, pupils a little dilated, but would contract under the influence of strong light; skin cold—of a deathlike feel, no rigidity of the muscles; pulse 112; and very feeble; not the first sign of respiration, no movement of the nostrils. I now lifted her body up to an obtuse angle with her lower limbs, I next raised one arm and then the other, and in this position I left her for several minutes. I now stepped back, gazed upon my patient, who, in a semi-sitting posture, with staring eyes, with out-stretched arms, and lifeless appearance, appeared as though a corpse had thus been placed, and left to stiffen. I then laid her down upon the pillow, raised her body up, having her head on the pillow in the attitude of *opisthotonos*, and thus she remained; after a period of twenty minutes, I gave her a slight push, and she fell on her left side with her body still having the same curve. I now straightened her out in bed, spoke loudly to her several times, but no response. I again repeated the *asafœtida* injection, containing *ol. terebinthinæ*. To please her friends, I tried several times to have her swallow, but all to no purpose. I held to her nose strong *aqua ammonia*, which affected her in no perceptible way. In this state she lay about eight hours; when consciousness returned, she related what she saw while in the other world. This time she was not so composed and tranquil as when she came out of the first trance. (?) Her symptoms now assumed more the character of *Hysteria*, her limbs were affected with convulsive twitchings, and she screamed loudly without giving utterance to any cause for so doing.

When she went into the second state of mental abeyance, my views were, as soon as consciousness returned, that she should be brought under some powerful *anæsthetic*, whereby her mental state might recuperate. Whether this should be produced by *chloroform*, ether, or hydrate of chloral was not fully settled in my mind. I therefore sent for Dr. Addison, of Farmersville, who arrived just after her imperfect return to consciousness.

It was decided at once to give her hydrate of chloral, of which she took seventy grains in the space of an hour, after which, she fell into a profound sleep, and did not awaken for twelve

hour. On arousing she was tranquil and composed, but felt extremely weak. She desired to be left alone as much as possible, as the presence of any one but her nurse gave her emotions of uneasiness. She is slowly convalescing, but her affection assumes the ordinary character of Melancholia. She is of sanguine, nervous temperament, nervous predominant, medium height, fair complexion, and of a somewhat spare form.

Now, Mr. Editor, was this a genuine case of Catalepsy? I appeal to you, Sir, who as an author and lecturer upon Physiology, may be able to throw some light upon the subject of Catalepsy. I have read the writings of Hoffman, Gooch, Anigenes, Caelius, Aurelianus, Cullen, and others, but the true pathology of Catalepsy yet remains to me a hidden mystery.

Selected Articles.

DISLOCATION OF THE HIP.

CLINIC BY PROFESSOR WOOD, F. R. S., KING'S COLLEGE HOSPITAL,
LONDON, ENG.

This was a case of dislocation, upwards on to the dorsum ilii, presenting all the characteristic symptoms, viz., absence of the hollow beneath the trochanter, the head distinctly felt in its new position, shortening of the limb and inversion, the toes resting on those of the opposite feet, etc. The accident occurred thus, a carpet was thrown out of a window, and the man as he was passing by endeavoured to catch it, so as to prevent its falling on his head, and in doing so he slipped down on his side.

The man objected to take chloroform. Mr. Wood first tried "manipulation," as the case had happened only two hours previously. Failing in this, traction was resorted to, the pulleys were then adjusted and after a good deal of patience and manœuvring, the dislocation was reduced. The "snap" however, was heard, and there appeared to be a little shortening, this, however was apparent, not real, and owing probably to spasmodic contraction of the muscles, as by measurement it was found that the distance from the anterior superior iliac spine to the great trochanter was equi distant on both sides, and the distance from the same spine to the outer head of the tibia equi-distant also. The knee and the ankles were tied together and the patient was carried to bed.

Professor Wood observed, that although manipulation had failed in this instance, it might be attributed—1st. To the great muscular development of the man, and 2nd. to his declining to take chloroform; still if they had noticed the several successive manœuvres he had employed, they (the pupils) would have noticed that they were precisely similar to the operation he had subsequently performed, *minus* the addition of the pulleys. That is to say, by first employing adduction, then flexion, abduction and rotation outwards, he had endeavoured to untwist or trick the ilio-femoral ligament and to hit off the opening in the capsular ligament as you do the opening between the subscapularis and long head of the triceps in the humerus. This second part of the manœuvre is by no means easy, and like "cheek-farthing," you may have to repeat the experiment, that is to employ all the manœuvres aforesaid, before succeeding in returning the head of the bone. What really takes place when you do succeed, is that the pyriformis and gluteus minimus become relaxed, and the head passes between these, and then through the opening in the capsular ligament. In fact a surgeon will best show his ability, who when one plan fails, tries another and so on, until the opening in the capsular ligament is discovered.

Again you must take care before you commence using the pulleys to see that the axis of the displaced limb is in the line of extension.

Sir Astley Cooper says, that if you *stand the patient up*, the shortening is very apparent. Professor Wood has noticed that, from the difficulty experienced by patients with this dislocation, to move the unaffected limb, he has never been able to stand his patient up. nor does he see any possible advantage by doing so. Finally, he noticed that many of the illustrations of hip dislocation in books, represented the patient as lying on a bed while reduction was taking place, such drawings are apt to mislead; the proper place is on the floor and the patient lying on a mattress.—*Med. Press and Circular.*

RUPTURE OF MEMBRANES SIX WEEKS BEFORE DELIVERY.—

On October 2nd, 1871, I was sent for to attend Mrs. S. in her confinement. On my arrival I found the membranes ruptured, the os uteri of the size of a shilling, and the head penetrating. The

pains occurred at intervals of about ten minutes, and were accompanied each time by a free discharge of liquor amnii. Mrs. S. was the mother of ten children, and all her previous confinements had been perfectly natural. She was of opinion that she had gone her full time, and believed that labour had commenced. No progress being made during the hour or so I stopped, I told them to send for me when the pains became more severe. As I received no message during the day, I called in the evening, and found my patient free from pain and all signs of labour; the abdomen was notably smaller, and she expressed herself as easier than she had been for a month. Matters continued much in the same state for the next six weeks; she gradually increased in size; and when the abdomen attained a certain dimension, periodic pains ensued, accompanied by a copious discharge of liquid, which always gave great relief. Besides those occasional floodings of water, there was a constant drain going on, so that she found it impossible to keep herself dry. At length, on Nov. 15, 1871, labour pains really commenced, and in less than an hour she was delivered of a fine male child, just six weeks after the rupture of the membranes.—S. M. BRADLEY, F. R. C. S.—*British Med. Journal*.

THE ANTISEPTIC TREATMENT OF WOUNDS.

BY OILLIAN NEWMAN, M.D. LOND., F.R.C.S. ENG.,

You will all, doubtless, have seen the scattered notices in the medical journals of the "Antiseptic Treatment of wounds"; and many of you will have read with much interest the admirable Address in Surgery given by Mr. Lister at the annual meeting of our Association in August last. To this novel mode of dealing with wounds I would invite your close attention, convinced as I am that the results, so to be obtained, far outweigh any of the usual sequences of the more ordinary surgical dressings—whether they be looked at from the ready and successful response to the surgeon's art, or from the safety and comfort so ensured by the anxious patient.

My short summer holiday this year was spent in Edinburgh; and to the kind courtesy of Mr. Lister I owe the opportunities of close observation of his treatment in many and severe cases in

his hospital practice. On the lessons there learned I have based my subsequent surgical work, and on them, too, as a foundation, I venture to speak to-day, bringing forward some few cases which have been under my own care, and describing, as clearly as I may, the modes of dressing which are employed. Throughout I am but the humble exponent of the views of a most able surgeon, and my only merit is that of having seen what I attempt to paint.

“*Segnius irritant animos demissa per aures,
Quam quæ sunt oculis subjecta fidelibus*”

Whether the so-called germ-theory of disease be or be not correct, is no part of my purpose to inquire; the process would be simply wearisome and ill-managed. The only postulate I ask you constantly to bear in mind is that, for the successful dealing with wounds on antiseptic principles, it is imperative, thoroughly to *Exclude the external Atmosphere as such*; and a most rigid obedience to this requirement can alone command the desired success, whether the air be *per se* a toxic agent, or whether it be dust-carrying, and so but a vehicle of those impurities, which determine the occurrence of suppuration in an open wound. It is imperative, in other words, that the air in contact with the exposed portions of a wound shall be fully charged with some convenient disinfectant: so charged, it may be admitted to the wound or cavity without risk to the patient or anxiety to the surgeon.

Taken, then, the simple case of an ordinary abscess, in which immediate incision is needed, the antiseptic treatment must be carried out as follows. 1. Destroy any putrefactive material about the integument of the part by washing it thoroughly with a lotion of carbolic acid (one part of the acid in twenty of water), 2. A constant cloud of fine spray must be kept up by an assistant, so managed that the hands of the operator and the part to be incised are always enveloped in the spray: one or more of Richardson's spray-producers may be needed for this purpose. The carbolic acid solution for the spray will be sufficiently strong if made of one part of the acid to a hundred of water. 3. The knife employed must first be dipped in carbolized olive oil (one part of the acid to ten of olive oil). 4. The incision being made, the abscess-cavity may, as far as possible, be emptied by gentle pressure. If any vessels should have been divided and need a

ligature, it should be tied with some prepared carbolized catgut, and both ends of the ligature cut off short. 5. The wound may thus be dressed. A piece of "protective" oiled silk, coated with copal varnish, and then covered with a layer of dextrine, so as to retain a little of carbolic acid lotion (one part to forty of water) on its surface—cut not much larger than wound—should be dipped in the lotion just named and then applied, on this a pad of the antiseptic gauze must be placed, large enough to overlap thoroughly the wound, and not less than eight layers in thickness. Between the seventh and eighth layers, or those most distant from the patient's surface, must be placed a single layer of macintosh cloth, so as to prevent direct soaking of any discharge through the gauze covering, and to insure that any moisture which may be poured out shall pass through many antiseptic layers and over some wide space before it can possibly be exposed to the impure influences of a septic atmosphere. 6. For the retention of this covering in place, a strip of the above-named muslin (cut to the width of, and rolled up as, an ordinary bandage) may be applied. The slightly adhesive character given to the muslin will make the requisite turns fit very easily, and be less liable to displacement, than the common calico roller. 7. If it be necessary to wait for some little matter—to replenish the bottle of the spray-producer with the lotion, to change the assistant, etc.—the wound should be covered with a piece of rag, dipped in a lotion, containing one part of acid in forty of water. This for convenience, is known as "a guard." 8. Subsequent dressings—first every day, then at longer intervals—must always be managed in the same way. The spray will need to be unremittingly kept up, the fingers to be soaked in the lotion or wetted with the spray, all adhering discharge carefully washed away, and the protective outside pad and bandage applied as before. 9. To small operations, removal of tumours, etc., the above process is thoroughly applicable. If the wound made be deep or tortuous, a tent of lint—a narrow strip—dipped in carbolized olive oil (one part of the acid to ten of oil), must be introduced before the sutures are inserted. At the end of twelve or twenty-four hours this tent may be removed, it will have absorbed the serum oozing from the deeper part of the wound, and so have prevented distension of the deeper parts, and possible formation of pus. 10. In larger operations—e. g., amputations—a larger

volume of spray must be secured from two or more of the usual spray-producers, or from the apparatus employed by Mr. Lister. [A new spray-producer, which seems likely to be very effective, has just been sent to me by Mr. Gardner, surgical instrument maker, South Bridge, Edinburgh.] Sponges should, before using, be dipped in carbolic acid lotion (one to a hundred) : when soiled they must be washed, first in clean water, then in a lotion of one to forty ; and then, just before using, in a lotion of one to a hundred. 11. The following cautions may not be out of place. *a.* The lotions for spray-producers need very careful filtration before being used. It is exceedingly easy to choke the fine apertures through which the spray is delivered. *p.* Hold the muslin-padding closely down over the wound until the layers of bandages shall have retained it closely in place ; and leave no channel by which septifacient air may reach the wound, unprotected by several layers of gauze-bandage. If dressings be loose or displaced, air will soon reach the surface of the wound, and in twelve hours suppuration will be established. *c.* Redress so soon as any trace of stain shall have shown itself at the outer edge of the gauze covering. *d.* Sinuses and wounds opening into mucous canals are ill-fitted for thorough antiseptic treatment.

The advantages may be briefly summed up :—1. The dressing is clean, almost inodorous, and singularly painless. 2. The formation of pus as a consequence of the injury, surgical or accidental, is, with due care, prevented. 3. Erysipelas and pyæmia, if not absolutely extinguished, are very rarely seen. 4. The wounds are free from local irritation, no swelling of incised integument and no local redness are to be noticed. 5. There is no constitutional disturbance (traumatic fever) after even severe operations. The dressings are infrequent, and in themselves free from irritating material. 6. The wounds heal rapidly.

CASES—1. *Abscess in Leg*—T. W., aged 10, was admitted July 18th, 1871, with a large abscess in the calf of the right leg. An incision was made under the spray, and antiseptic dressing was employed. No pus was discharged after the first day. The blood-clot filled up the incision, but soon became organized. On July 25th, he was discharged cured, having been a week under treatment.

11. *Abscess in Breast*.—E. T., aged 17 was admitted September 12th, with an acute and large abscess in the right breast.

An incision was made September 13th under spray; the dressing was as above. No pus was discharged after the first three days. On September 12th, she was discharged cured, having been a week under treatment.

III. *Large Chronic Abscess*.—J. W., aged 18 was admitted September 12th, 1871. She was the subject of old hip-joint disease on the left side. The limb was shortened an inch or more, and the femur was dislocated upwards and backwards on the dorsum ilii. There was a large fluctuating swelling on the left thigh, fully six inches long by four broad, reaching upwards nearly to the trochanter, downwards below the middle of the thigh. It was first noticed six months previously. On September 13th, chloroform was given, and I made a free incision into the swelling on antiseptic principles, letting out thirty ounces of fairly healthy pus, with shreds of areolar tissue. No constitutional disturbance followed. The girl became free from pain, and could at once eat and sleep. Subsequent dressings were applied about every two or three days. Now from an ounce to two ounces of pus are discharged at each dressing. The shreds of tissue are no longer to be noticed. Within the last week some small fragments of carious bone have come away, so the abscess is most probably connected with the old bone disease.

IV. *Large abscess in Lumbar Region over right Kidney*.—W. J., aged 38, was admitted October 5th.: He was much emaciated, and could not stand upright. He had a swelling in the right lumbar region nearly of the size of a small foetal head. Pulse 120; temperature 103 deg. He had hectic fever, much sweating, and loss of appetite. On October 6th, under chloroform, I incised the swelling, evacuating nearly thirty ounces of pus. The dressing was applied as above described. Pulse 96; temperature 98.4. The hectic never returned, and the man is much better. The back is dressed every two or three days, and about an ounce of pus is discharged. I have had occasion (October 15th) to open also for him a large abscess in the perinæum, due, it would seem, to the urethra giving way behind a tight stricture; but this wound, through some urine filters, could not be subjected to antiseptic dressing.

V. *Compound Fracture of Left Tibia*.—M., aged 12, sustained a severe compound fracture of the left tibia in the upper third on September 16th, 1871. On September 18th I saw him in consultation. Two inches of the tibia were denuded, and there was a deep

wound into the calf separating the muscles from the posterior surface of the bone. The wound was filled with blood-clot, which was just beginning to become offensive. I injected some carbolic lotion (one in twenty) beneath and into the substance of the clot. The limb having been securely fastened on a side-splint, the usual antiseptic dressing was applied. A fortnight later, I heard that the boy was doing very well. There was no pus-formation to be seen; no putrefaction; the blood-clot was becoming organized.

VIII. *Fracture of Right Leg at the junction of Middle and Lower Third: Severe Transverse Wound two inches above the Ankle down and into the Tibia.*—W. M., aged 54, was admitted September 8th, 1871. He was thrown this morning at 8 o'clock, when at work with a reaping-machine. The right leg was seriously injured. When he was seen at 2 P.M., there was found to be a simple fracture of the tibia at the junction of the middle and lower thirds. There was a wound about two inches above the ankle-joint, gaping widely; all the tendons, etc., were divided down to the bone, and the knife of the reaper had made a groove into the tibia itself. He had lost a good deal of blood. The limb was much swollen. The two points of injury, doubtless, communicated. There was hardly an inch and a half of clear skin space between them, and pressure above the fracture made blood well from the wound below. The leg was put up in a swing splint; the skin was washed, and the wound mopped out with carbolic lotion (one to twenty), and a tent of carbolized oiled lint was introduced to the deepest part of the wound. The tent was removed in twenty-four hours. There was large oozing of blood-stained serum on the dressings throughout the first eight or ten days. The man had had no constitutional disturbance. He had eaten meat since the day after admission. He needed no sedative, and had very little pain. On October 4th, from some want of care in the dressing, and the consequent admission of air, a few drops of pus were noticed for the first time, and small suppuration (never more than half a drachm in two days) afterwards continued. On October 23rd, the wound was all but well, the fracture was sound. He was ordered to have a starched bandage applied.

IX. *Incision into Knee-Joint.*—G. B., aged 23, was admitted August 11th, 1871. He had disease of the right knee-joint of fifteen months standing. Since an accidental slip the symptoms had been much aggravated. The joint was much swollen, and he could not bear the slightest movement; there was also much pain on pressure. The

limb had been confined at home by a long splint, and a weight, working over a pulley, attached to the foot; but these measures had given very small relief. Destruction of cartilage was, no doubt, going on. On August 11th chloroform being given, I made a free incision on the inner side and parallel to the right patella, letting out at once about a tablespoonful of sero-purulent fluid. Antiseptic dressing was applied. The interrupted splint and pulley was reapplied. The relief was immediate; the man was at once able to eat and sleep. No constitutional disturbance followed. The joint soon became smaller. The blood-clot, which ultimately became organized, filled up the incision, and through the interior of this clot for ten days or more pus slowly oozed. On September 12th, the wound, which had not been dressed for the past eight days, was now quite well. On October 5th, a starched bandage and paste-board support was ordered to be applied to the limb. The patient was allowed to move about on crutches. On the 20th, he could bear some little weight on the limb, and was in very fair health.

XI *Incision into Knee Joint.* R. I., aged 17, was admitted September 18th, 1871. She had had for a long time weakness in the left knee. Pain and swelling about the joint came on six weeks before admission, since which time she had kept her bed. On admission, the left knee was much swollen, fluctuation was perceptible, she shrieked on the slightest movement. She had lost flesh, had no appetite, and could only sleep with large doses of opium. On September 23rd, Mr. Endowes made an incision on the inner side of the patella, letting out sero-purulent fluid mixed with blood. The patient was under chloroform. Considerable relief followed. In two or three days the appetite was much improved. There was no constitutional disturbance, no redness around the wound, no pus from the wound. On October 3rd, the joint was much diminished in size.

XII *Ovariectomy*—S. A., aged 32, the subject of marked ovarian disease, was tapped in July 1871, when thirteen pints of fluid were removed—a solid mass remaining in the left iliac fossa. On September 21st, ovariectomy was performed. Carbolic acid spray was employed, and antiseptic dressing. The pedicle which was thin, was tied in two halves with catgut, and returned. On the 30th, it was necessary to break up the adhesion of the lower part of the wound to relieve the distension from contained fluid. There was a large effusion of blood into the lower third of the abdominal cavity. No putrefaction, however, occurred, and no pus formation until a month

after the operation; then it was superficial, from accidental displacement of the dressings. The woman is steadily recovering.

REMARKS.—The two cases of acute abscess call for little remark: one was quite well in a week; the other in a fortnight, from date of incision. The cases of chronic abscess have exhibited no sign of constitutional irritation since the evacuation of the contained matter. Both have been much relieved by the procedure; and, as yet, without the risk and dangers which not uncommonly follow the emptying of large collections of matter. Both instances of compound fracture were so severe that a few months ago I might justifiably have thought of an immediate amputation. In not one particular has there been in either case a trace of uneasiness either to patient or surgeon. The power of making incisions into large articulations, without even a fear of after trouble, is of no small interest; and one, if not both, of these patients will probably owe their limbs to the antiseptic dressing. More than once have I seen amputation through the thigh for less marked states of joint-disease. In the ovarian case, I claim nothing more than the prevention of putrefaction, in the large quantity of blood effused into the peritoneal cavity, by the dressing employed. And, too, so far as one single case may be a precedent, this shows also that the spray of carbolic acid (one to a hundred) does not irritate even the sensitive lining of the abdominal cavity. Other cases might well have been added to the list, but I have chosen these as marked instances of surgical procedure, of not infrequent occurrence, and, I might truly add, not uncommonly followed by tedious recovery or by serious after-trouble when the more usual surgical dressings are employed.—*British Medical Journal*.

ORGANIC BROMIDES.

The success that has attended the administration of some of the inorganic bromides, the potassium bromide especially, has led me in the past few months to prescribe organic bromides, and, as the results of the experience have been in many ways satisfactory, I venture to record them. The physiological action of bromide itself—the element—is definite and well pronounced. In the old parlance it is an irritant, but the term does not strictly indicate all that it effects. To a certain extent a volatile body, it produces, when it is inhaled, a peculiar constricting action in the vessels

which supply the secreting surfaces with their blood, so that inhalation of its diluted vapor makes the mucous surfaces with which it comes in contact dry and painful. After a time there is what may be called a reaction, due probably to the temporary paralysis of the vessels, and then there follows a free excretion of fluid, what the older writers would designate a flux or salivation, attended with some degree of local insensibility.

Applied directly, in the liquid form, to the body, and especially to a mucous surface, it acts as a direct destructive of tissue, not precisely as a caustic, but as a substance which leads to shrinking and slow death, with still more determinate local insensibility.

In combination with other elements, as with potassium, its direct action is modified but not removed. Passing through the tissues in a condition of fine distribution, and probably separating from its ally, it exerts on the nervous matter its special sedative influence, causing, if it be carried far enough, its direct paralyzing influence over the vessels which govern secretion, and leading to a certain extent to decreased sensibility of the nerves which govern common sensibility.

On the whole, bromine may be considered as a medicine which acts primarily on the sympathetic or organic system of nerves and as a modifier of vascular tension; and this whether it be applied locally and directly, or generally and indirectly—*i. e.* in combination.

Thus we may rationally administer bromine with any other substance with which it will enter into chemical form of combination; we may trust to the development of its due independent action without regard to the action of the substance with which it may be combined, and we may be satisfied that it will not materially interfere with the action of the agent with which it has been made to combine.

BROMIDE OF QUININE.—Bromide of quinine is formed by subjecting the alkaloid quinia to hydrobromic acid, or by acting on a salt of the alkaloid with bromide of potassium. The bromide of quinine is soluble, and mixed with a simple syrup, is ready for administration as a medicine. I prefer to employ it as a syrup containing one grain of it in every fluid drachm. The dose of this syrup is from one to four fluid drachms.

BROMIDE OF MORPHINE.—Bromide of morphine is made by a similar process to that used for making bromide of quinine; morphine or a salt of morphine being substituted for quinine or a quinine salt. This compound also makes up best in form of a syrup, and the preparation I prescribe contains an eighth of a grain of bromide of morphine in a fluid drachm of simple syrup. The dose of this syrup is from one to four fluid drachms.

BROMIDE OF STRYCHNINE.—Bromide of strychnine is made the same way as the two last-named preparations; strychnine or a salt of it, taking the place of quinine or morphine. This, again, I always prescribe as a syrup, one thirty-second of a grain of the bromide being contained in one fluid drachm of the simple syrup. The dose of this syrup is from one to four fluid drachms.

COMBINATIONS.—I am in the habit of sometimes combining the preparations named above, in order to suit particular cases of disease. For example, I combine the bromide of quinine and morphine in syrup, so that each fluid drachm of syrup contains a grain of the salt of quinine, with an eighth of a grain of the salt of morphine, or I combine the three salts, so that the fluid drachm of syrup contains a grain of the quinine, an eighth of a grain of the morphine, and a thirty-second of a grain of the strychnine salt. Speaking generally of all these salts, I may state that, in action, the bromide throughout, in so far as its action is indicated, is eliminative and sedative. I am satisfied the bromide of quinine can be administered freely, when quinine itself, or any other salt of it, cannot be readily tolerated. I am equally clear that the bromide favors the sedative action of morphia, while it, at the same time, allays the astringency which morphia induces; and lastly, I am satisfied, from experiment, that bromide reduces, or rather subdues and prolongs, the action of strychnine on muscular motion.

NOTES ON PRACTICE.—I have prescribed bromide of quinine, and the other bromides named, in a large number of cases of diseases, and with results I did not fully expect. I will proceed briefly to indicate the leading facts that have occurred to me in the course of observation.

Bromide of quinine simply appears to me to be of good service in cases where certain special and persistent symptoms follow upon syphilis. I hardly speak now of the symptoms which

patients themselves connect with that malady, but rather of those insidious symptoms which we, as medical men, who have lived long enough to have seen years of practice, trace back to a syphilitic basis, hereditary or acquired. A case of recurring rheumatism of this nature, a case of recurring ulceration of the fauces, a case of general nervous exhaustion with flying pains in limbs, loss of appetite, general debility, loss of hair, and remaining thickening enlargement in the groin, a sequence of bubo; these have been instances in which the administration of the bromide of quinine, in doses of from two to three grains three times a day, has been more immediately and determinately beneficial than any other treatment I have practiced myself, or seen practiced by my brethren of physic, in such forms of disease.

One great advantage of this preparation seems to me to be, that it allows one to give much larger doses of quinine than are common, and in frequent and continued doses without setting up the symptoms of headache, oppression, and ringing in the ears, which make what has been called *chinechonism*. Thus we may give three grains of bromide of quinine, three times a day, without inconvenience, for several days, if a smaller dose does not suffice.

I have an idea that the bromide of quinine might be administered with advantage in the earlier stages of the contagious diseases, such as small-pox. It would, I think, allay the severe nervous symptoms which usher in these diseases, and so moderate the secondary symptoms that follow in train. Since I began to introduce the bromide into practice, I have not had an opportunity of putting this suggestion to the test, but I have sent some of the preparation to Mr. Marson of the Small-pox Hospital, asking him to give it impartial trial. I have also asked my friend, Dr. Broadbent, to make trial of it, at the Fever Hospital in all cases of acute febrile disorders. The results they obtain I shall hope to communicate in a future number of this journal.

BROMIDE OF MORPHINE.—Is a useful addition to the salts of the alkaloid. It seems to me that a smaller dose of the salt than is effective in the case of the other morphine salts produces as distinct a narcotic influence, and also that the dose may be repeated more frequently without producing those after effects of an opiate which tell against repetition of administration. For

instance, in a case of extreme depression of a nervous kind, attended with determinate insanity, in which, owing to the headache and nausea it produces, the muriate of morphia has been replaced by chloral hydrate, as the latter remedy has been continued until it had become hurtful, I prescribed the fourth of a grain of bromide of morphia at bed-time with excellent results, producing sleep without production of nausea or other distressing symptoms. Knowing too well how apt we are to ascribe an efficiency to new remedies which belong to other causes, I pen these first impressions on the action of this bromide with all due reserve. I write, in fact, mainly to secure the larger experience which will ensue when many acute observers are bringing the same remedy into daily use.

THE BROMIDES OF QUININE AND MORPHINE—In combination constitute a remedy of which in cases suited for their administration, I cannot speak too favorably. Four classes of disease seem to me to be specially benefited by this compound, viz. neuralgia fever, cerebral irritation, diabetic phthisis, and extreme acute attacks of intermittent pulse, the result of organic nervous shock. In acute neuralgia I administer a drachm of the syrup of bromide of quinine and morphia to an adult every two hours until the pain is altogether removed, and am able to report not only that pains can be effectually removed by it, but that the medicine exerts no derangement of the body that lessens its value. It calms pain without inducing deep narcotism, it interferes little with the secretions, it rarely causes nausea, and it interferes little with the appetite. In the case of an esteemed member of our own profession, who has been for twelve months under my care, suffering from right homiplegia, the most distressing symptom I have had to meet has been intense sciatic neuralgia. After a run of all narcotic tonic measures, I found happily in the bromide of quinine and iron, a remedy which has now for three months hold him free of all suffering, and, as a consequence of freedom from pain and sleepless weariness, has led to a distinct improvement in his general health.

In diabetic phthisis I have administered the bromide of quinine and morphia with the same freedom. Under its influence, in these cases, the quantity of sugar and of fluid excreted by the urine notably decreases, cough is relieved, the appetite and digestive powers are improved, and recurring hectic is held in

obeyance more certainly, I think, than by any other remedy or combination of remedies with which I am practically conversant.

In a case of intermittent pulse, where the lapse in the heart-stroke was painfully frequent, where there was continued feverish restlessness, and a fear of going to sleep that more than all sustained the irregular nervous action, the symptoms gave way at once under a few doses of bromide of quinine and morphia in a manner that was as gratifying to the prescriber as to the patient. The purpose of the medicine, in a word, was promptly fulfilled, and as demonstrably as if it had afforded mechanical instead of therapeutical relief. In a second case of intermittent pulse, where the intermittency is the prelude of great mental excitement, followed by depression and melancholia, the remedy has exerted a similar beneficial influence. It induces rest and sleep without the production of deep narcotism and without deranging digestion.

THE BROMIDE OF STRYCHNINE—has rendered unquestionable service in a few cases of dyspepsia with and from deficient nervous control over the vascular supply of the organs concerned in the process of digestion, in cases of partial organic nervous paralysis of the ventricular division of the organic nervous system. In such cases of disease, and they are by no means uncommon, where, when the body is without food, there is a knowledge of hunger without the true sense of it, when there is congestion of the liver, and suppressed secretion to-day, accompanied by giddiness and irritability and precordial oppression, with diarrhea to-morrow, and then constipation, in these cases the bromide of strychnine in the proportion of one thirty-second a grain may be given three times daily with marked advantage, an alterative being at the same time occasionally added.

In some mixed cases of nervous pain, with want of organic nervous action in the digestive organs, I have combined the bromide of strychnine with bromide of quinine, and in many cases of this nature I have prescribed the three bromides with good results.

Syrup of the bromide of quinine, and strychnine, and syrup of the bromide of quinine, morphia and strychnine, will both, I believe, become favorite compounds with the profession, finding their place as Eastin's syrup of superphosphate of iron, quinine, and strychnine has found its place in the list of tried and approved medicaments.

One other point of practice remains to me only to note. In cases where there is much dryness and irritability of the mucous membrane of the pharynx and larynx, the bromides are not commendable, the bromine increases the irritation. This was so marked in a case where there was a small ulcerated surface in the larynx, that I had to stop the administration altogether, the smallest dose producing violent and long continued irritative cough and spasm.

HYDROBROMIC ETHER—Amongst other bromides that have medicinal qualities is hydrobromic ether, bromide of ethyl— C_2H_5Br . This ether is a light volatile liquid made by distilling four parts of powdered bromide of potassium, with five parts of a mixture, consisting of two parts of strong sulphuric acid and one of alcohol, having a boiling point of 104 degrees Fahr., a specific gravity of 1.400, and a vapor density of 5.4, taking hydrogen as unity. It is nearly insoluble in the blood.

This ether is of interest, from the fact that the late Mr. Nunneley, of Leeds, proposed and used it as a general anæsthetic, and came to the conclusion that it was the best and safest of all known anæsthetic substances. A few weeks before his death I had the pleasure of visiting Mr. Nunneley and in the course of our many conversations on scientific subjects, he spoke again of his experience with the bromide and begged me to submit it to a fair and strict investigation. I have carried out his wish, and can report upon hydrobromic ether, that it is, as Mr. Nunneley said of it, one of the safest of general anæsthetics. An atmosphere containing from eight to nine per cent. of the vapor of the bromide of ethyl, causes, when inhaled, entire destruction of common sensibility, rapidly, and safely. The breathing remains tranquil, the pulse quiet, the expression good; the transition from the first to the third degree of narcotism is moreover, so rapid that the second degree—degree of muscular excitement—is scarcely recognizable. There is no sign of apnœa; and when, in animals, the inhalation is carried to the extreme the resistance of the heart to the paralyzing action of the narcotic is good. As might be expected from the low boiling-point of the ether, 104 degrees Fahr., and its insolubility in the blood, it is rapidly eliminated from the body when it has been withdrawn, so that the period of recovery is short, from three to five minutes.

When inferior animals are made to sleep into death by the

vapor of the bromide of ethyl, the heart is found, directly after death, with blood on both sides and free of vascular congestion. The color of the blood on each side is natural, and the lungs are left charged, without being surcharged, with blood. The coagulation of the blood is natural. The heart retains its irritability for as long a period of time as after death from methylic ether.

Mr. Nunneley's favorable opinion on the action of hydrobromic ether is therefore confirmed in respect to essentials, but I am not thereupon inclined to suggest that it should be employed in place of other and better known anæsthetics. For, irrespectively of the trouble and cost of making the ether, it has certain faults which are opposed to its general employment. It causes irritation of the throat in some cases, and occasionally vomiting, added to these objections, the fluid easily undergoes change on exposure to the air, with liberation of free bromide, when it becomes difficult, if not dangerous, to inhale.—*Medical and Surgical Reporter.*

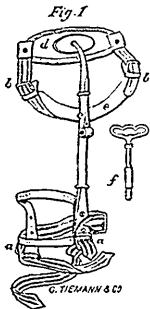
THE SOCIAL EVIL.—Men sprinkle prostitution with rose-water and call it the Social Evil. This is a better title under which to invoke legislation. It keeps persons off the scent. In England, "Contagious Diseases Act" served the same purpose. Such was the title of the law smuggled through Parliament "to improve the health of the Army and Navy." A year or two after its passage people woke up to find they had licensed prostitution in certain districts. Then came opposition and a cry for repeal on the one side, and an effort on the other side to extend the law over the entire kingdom. Associations were organized for both purposes. Opposition has gained ground, and last year six hundred thousand signers protested against the law. The law has been transplanted to America—to St. Louis, nowhere else, as yet. Now comes an effort to apply it to San Francisco. Its friends allege that it has succeeded elsewhere. Its enemies insist that the success is on the surface, and that it has driven the evil out of public view only, and into clandestine retreats, where it is more dangerous to society. Many good people are ranged on both sides. With the enemies of the law, the stumbling-block is the principle of licensing, and thus sanctioning, prostitution. The moral sense of the American people is inflex-

ibly hostile to this principle. They do not believe that the end justifies the means. French and European legislation has schooled many of our citizens of European birth in the opposite faith. Much can be said, and much will be said, on both sides. It is not a subject for hasty legislation. If a plan can be devised to restrict the evil without violating the principles of morality and justice, and thereby sapping the foundations of society, we shall be only too glad to plead for it. But we protest against that one-sided legislation which protects men at the expense of women—which distrains woman of her liberty that she may be made a safe subject for masculine lust—which compels her to submit to examinations and operations in order that she shall not communicate disease to men, and then opens the door of her bedroom to every diseased and beastly lecher, who may enter without examination, without inquiry, without the shadow of restraint. We blush for any professional brother of cultivated conscience and refined morality who would advocate such legislation.—*Pacific Medical and Surgical Journal*.

LIEBREICH'S OPERATION FOR EXTRACTION OF CATARACT.—Prof. Liebreich says that during the four years past he has in more than three hundred cases employed the following method for extracting cataract in preference to the one recommended by Graefe, which he had formerly employed, and finds it to be, in many respects, its superior. The incision of the cornea is to be made with the smallest possible Graefe's knife in the following manner: "Puncture and contra-puncture are made in the sclerotic about one millimetre beyond the cornea, the whole of the remaining incision passing with a very slight curve through the cornea, so that the centre of it is about one millimetre and a-half distant from the margin of the cornea. This incision can be made upwards or downwards, with or without iridectomy, and the lens can be removed through it with or without the capsule. If, as I now practise, the extraction is made downwards without iridectomy, the whole operation is reduced to the greatest simplicity, and does not require narcosis, assistance, elevator, or fixation, and only two instruments, Graefe's knife, and one cystotome with David's spoon (*Br. Medical Journal*, No 570).

DR. SAYRE'S APPARATUS FOR HIP JOINT DISEASE.

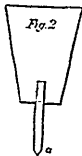
This apparatus consists of two portions, the upper (Fig. 1 c) made of corrugated steel, attached by means of a universal joint to a pad of proper size (d) fitting on the dorsum below the crest of the ilium, and holding in place a perineal band (e) adjustable by strong wobbling and buckles (bb).



The lower Portion f, is simply a ratched bar, sliding within the first. Its inferior extremity is easily adjusted by means of a single screw to either side of two semi-circular bands (aa) embracing the thigh just above the knee, making the apparatus answer for both limbs. The cut represents the same arranged for the left leg. Extension is made by working the Splint with the key f.

The necessary measurements in ordering the above are.—

1. Length from Trochanter major to kneejoint.
2. Circumference of Thigh three inches above knee.



The application of the splint is as simple as its construction.—Take strong adhesive plaster, spread on twilled muslin, cut two fan-shaped pieces (Fig. 2), one large enough to reach from the perineum to within two or three inches of the condyle of the femur, on the inner side of the thigh, the other from the trochanter major, to a point directly opposite the end of the inner plaster. Sew on the narrow end of each, Fig. 2 a, one of the webbings, represented Fig. 1 a a (not on the sticky side). Apply them to their respective places, and after pressing them with the warm hand, to obtain firm adhesion, secure them further by a well-adjusted roller. The instrument contracted, is now laid over the thigh, the webbing Fig. 2 a. firmly fastened over the rollers to the buckles

Fig. 1. *a a* and the remaining one around the thigh. The perineal band is now adjusted, rather firm, and the instrument extended with the key, to just enough to make the patient comfortable, and then locked by pulling the slide down over the spring Fig. 1 *c*.

In order to prevent the limb from swelling below the bandage, Dr. Sayre recommends the use of an elastic stocking or kneecap.

A CASE OF EARLY PREGNANCY.—William McCollom, M.D., of Brooklyn, N. Y., reports the following case:—Jane F., single, born in Vermont, of American parentage, was reared in poverty until adopted by a respectable family in easy circumstances, at the age of eleven years. About this time, and soon after she entered upon her eleventh year, she reached puberty, and menstruated regularly up to the time of conception, which occurred in the early part of the month of March, 1864, after intercourse with an old sinner sixty years of age. Her age at the time she conceived was twelve years and nine months, and at the time of her confinement, at full term, December 10th, 1864, thirteen years and six months. She was at this time a bright, active girl, with a childish face, and with a mind corresponding with her years, but in other respects had a womanly development, weighing about ninety-five pounds, with well-developed pelvis, full rounded limbs, and finely developed mammae.

I was in attendance soon after the commencement of labor, at five o'clock p. m. The pains were regular, with brief intervals of rest, gradually increasing in severity. On making an examination, found the os dilated to admit the point of index finger. After an hour and a-half had elapsed she was suddenly seized, without premonitory symptoms, with quite severe epileptiform convulsions, immediately followed by coma and stertorous breathing. The pains continued, lessened in degree of force, with considerable regularity. She was bled in the arm, and kept under chloroform until labor was sufficiently advanced to allow me to apply the forceps at three o'clock a. m. I delivered her, without difficulty, of a living girl, which weighed six pounds and eight ounces. After the delivery of the child she continued in an unconscious comatose state until nine o'clock the

next morning, when she gradually emerged from it, and made, together with the child, a good recovery. She had an abundant lacteal secretion, and nursed the child. She had no return of the eclampsia after an hour from the first seizure. The urine was not tested for albumen or casts; but she had at no time previous or subsequent to labor symptoms of uræmia.—*Medical Record.*

A CASE OF MOGIGRAPHIA.—Dr. Noyes, of Detroit, Mich. (*Detroit Review of Medicine*), reported a rare as well as a very interesting case of scrivener's spasm or palsy. The case was that of a bank-clerk, who had been a long time engaged in writing rapidly and very constantly, until exhausted. He complained at first of numbness in thumb and index-finger. The numbness grew worse, and after writing awhile, he was unable to hold the pen at all. The constant galvanic current has been used with benefit, in connection with cold showering.

Dr. Livermore said that he had seen a number of cases of this affection in Europe, which were enabled to write by fitting a block to the pen, to be held in the ball of the hand.

We would remark that Prof. Eastman, of Eastman's Commercial College, Poughkeepsie, has devised an excellent pen-holder, with an egg-shaped attachment for the palm of the hand, which is well adapted to cases of mogigraphia.—*Medical Record.*

CIRCUMCISION IN UTERO.—A member of the Philadelphia Obstetrical Society having witnessed the circumcision of a Jewish child, described this operation to his wife, who was in the early period of pregnancy. A strong impression was made on her mind, and the event was the subject of constant thought for several days. Seven months afterwards she gave birth to a child, whose glans penis was found exposed, "while the retracted prepuce actually showed the yet granulating cicatrix of what looked like a very recent circumcision!" This extraordinary circumstance, which is related in a first-class medical journal, under the head of "Birth-mark from Maternal Impressions," suggests a ready method by which our fellow citizens of the Israelitish faith may do away with the sanguinary mode of performing circumcision in common use.—*Pacific Med. and Sur. Journal.*

HEMOPTYSIS—TREATMENT BY ATOMIZER.—Dr. Holden, of Newark, New Jersey, (*Medical Record*), invites attention to a simple and efficacious method of checking hæmoptysis by "throwing the atomized vapor of a saturated solution of gallic acid directly into the mouth and throat. I have repeatedly found the most gratifying success follow at once, even in cases of profuse hæmorrhage. Unlike other styptics thus administered, it quiets the spasmodic cough, which seems the direct result of the presence of the blood, requires but a moment to prepare, and aside from its efficacy, it inspires immediately the confidence of the patient. My habit has been to have an atomizer and bottle of gallic acid always at hand, and when summoned hastily to mix the acid in a tumbler of cold water, and use even without waiting for the excess of acid to subside. It has proved successful in several cases where the blood was streaming from the mouth with every expiration.—(*Medical Cosmos*.)

OVARIOTOMY DURING PREGNANCY.—At a recent meeting of the London Obstetrical Society, Dr. Eugene Goddard read the particulars of a successful case of ovariectomy during pregnancy. The patient was 29 years of age, and in 1870 was found to be the subject of an ovarian cyst, but as there was no urgent symptoms, the consideration of any surgical treatment was deferred. She then became pregnant; and about the end of the second month of utero-gestation, Mr. Spencer Wells removed the ovarian cyst. Eleven and a half pints of fluid was withdrawn. The clamp was removed and the bowels acted on the eighth day. Pregnancy went on uninterruptedly, and a living child was born at the full period. Dr. Goddard said that the compound nature of the cyst, precluded the idea of tapping, as also did the risk of peritonitis, suppuration of the cyst, and the formation of adhesions. Premature labour was not induced, because the patient was already beginning to suffer constitutional disturbance from the double burden, and it was doubtful whether, by the time a viable child could be born, they would not have assumed such magnitude as to imperil the patient's safety, whereas, if abortion were induced, the child would be lost, and the tumor would remain.

Dr. Ross related a case in which Mr. Wells had operated

under more adverse circumstances, as the lady was much broken down in health, at the time of the operation. A small ovarian tumor was diagnosed eighteen years ago. The patient was subsequently married, and Dr. Ross had attended her in four labours. In no instance was parturition attended with any serious difficulty. During gestation the tumour appeared to become smaller. The tumor rapidly increased about a year ago, and Mr. Wells removed it successfully, the patient being about two months pregnant.

Mr. Spenser Wells said that the existence of the cyst for eighteen years, and the pressure on its walls of hard bone-like masses, had led to the diagnosis of a dermoid tumor. He had performed ovariectomy four times during pregnancy, and all the patients had recovered.

Dr. Bantock said that the diagnosis of pregnancy at an early stage, complicated with an ovarian tumor, was not always easy. In considering the performance of the radical operation in these cases, one fact was worth any number of theoretical objections.

Mr. Scott referred to a case of ovariectomy which he had recently performed. The patient had passed through two labours at term in safety.—*British Med. Journal.*

NEW METHOD OF EXTRACTION OF CATARACT.

BY R. LIEBREICH,

Ophthalmic Surgeon and Lecturer to St. Thomas' Hospital, London.

GENTLEMEN — Until now we could perform but small operations at our Thursday meetings. The Ophthalmic Ward having been opened last week, we shall be able to receive patients for operations of greater importance. We shall begin with cases of iridectomy and cataract, and as for this latter, I shall have to explain to you my new method of extraction, the more detailed description of which will appear in our next *Hospital Reports*.

The frequent occurrence of total suppuration after flap-extraction induced the celebrated operators of Moorfields Hospital to return to and improve the linear extraction, which at that time had been almost abandoned. Graefe, struck with the

results which Messrs Bowman and Critchett had obtained, submitted the question to further studies, and so formed the method which is now generally adopted in England and on the continent.

There are numerous statistics to show that in Graefe's method there is a much smaller percentage of total suppuration than in flap-extraction; also that, even in cases of very bad general constitution, weak and marastio individuals with thin and flabby cornea, the prognosis is not so unfavourable as in flap-extraction; and the precautions we have to take after the operation, and the restrictions we have to impose upon the patient are not so great.

On account of these advantages of Graefe's method, it was natural that the flap-extraction was soon abandoned. To me, however, it appeared that the mechanism of Graefe's operation was still too complicated and violent, that prolapse of the vitreous body and hæmorrhage into the anterior chamber were too frequent during the operation, iritis and strangulation of the iris in the corners of the wound too frequent after it, and that the most favourable results, compared with the most favourable results in flap-extraction, were not perfect enough.

If these inconveniences be carefully inquired into, it is found that they can all be brought back to one and the same principal cause—namely, peripheric position of the incision. This peripheric position explains why—

1. It is impossible to remove the lens without iridectomy.
2. The excision of the iris is to be large and extensive, also it causes too great an inclination to prolapse of the iris.
3. It is necessary to perform the operation above, so as to cover a part of this large pupil by the upper eyelid. The removal of the lens upwards is by far more difficult, on account of the tendency of the eye to escape upwards, and, consequently,
4. During the whole operation, the eye has to be kept open by the speculum, and to be drawn downwards by the forceps. This is not only painful and injurious to the eye itself, but causes
5. Not unfrequently, prolapse of the vitreous body, to which a peripheral incision itself already tends. Prolapse of the vitreous body and hæmorrhage into the anterior chamber are the chief impediments to a careful removal of all the *débris* of the cortex, and cause—

6. Those grave forms of iritis which are sustained by the permanent irritation caused by the tumefied remainders of the lens behind the iris.

Of those disadvantages I was perfectly aware after I had followed for a short time Graefe's original plan, and I proposed, therefore, in 1867, in an article on Cataract which I wrote for the *Nouveau Dictionnaire de Médecine et de Chirurgie* (Paris, Baillière), some modifications. They are, however, but the first step I made, and in the last four years I have come, by a large series of systematic experiments, to a method which I now, after more than three hundred operations performed in this manner, consider definitely settled.

The incision of the cornea is to be made with the smallest possible Graefe's knife, in the following manner.

Puncture and contrapuncture are made in the sclerotic about one millimetre beyond the cornea, the whole remaining incision passing with a very slight curve through the cornea, so that the centre of it is about one millimetre and a half distant from the margin of the cornea. This incision can be made upwards or downwards, with or without iridectomy, and the lens can be removed through it with or without the capsule.

If, as I now practise, the extraction is made downwards without iridectomy, the whole operation is reduced to the greatest simplicity, and does not require narcosis, assistance, elevator, or fixation; and only two instruments—namely, Graefe's knife, and one cystotome, with Daviel's spoon.

What are the advantages of this method of operating?

1. It is undoubtedly of all methods the simplest and least painful.

2. It is unconditionally the easiest to perform, and requires the least practice. It may, therefore, be performed by those operators who from time to time only have an opportunity of doing so, and those patients benefit by it who are unable to reach a central point in order to place themselves in more practised hands. On account of the greater facility of operating, the last pretext for reclamation of cataract is removed, which, although universally and justly condemned, is still here and there performed.

3. It is preferable to the flap-extraction, on account of the safer and constantly regular incision. The flap-incision scarcely ever acquires the regularity which may theoretically be demanded

—even if made by the most practised operator, with the best assistance, the most enduring patient, or under chloroform—by the use of elevation and fixation instruments. Now its height or breadth is not what it is intended to be; now its position is incorrect, or the wound is irregular—indeed, part of it is due to the difficult form of the incision; but by far the greater part, according to my conviction, is due to the mechanism by which the cuneiform cataract-knife is to make the incision. A small Graefo's knife would make a flap safer and more regular than the various other cataract-knives. The incision which I designed can easily be made, in giving it in every case exactly the desired form and position—even if the patient is very restless—without assistance, without elevator or fixation. It mainly depends on the facility with which the place of the *contrapunctura* can be chosen, the knife drawn back and made to pierce at another point if a mistake is made in the selection of the place for *contrapunctura*, and in the freedom with which, in terminating the incision, the inclination of the knife can be changed if necessary.

A little practice will enable every operator to avoid these corrections, and to make the *contrapunctura*, as well as the whole incision, correctly to his original plan, without subsequent alterations.

4. Against Graefo's method it has the advantage of a more favourable position of the field for the operation, and avoids through it all the inconveniences to which I have referred, as arising out of the peripheral position of the wound.

5. In regard to the mode of healing, it favourably contrasts, like Graefo's method, with the flap-extraction, on account of the diminished influences which age, constitution, general state of health, season, and other causes exert; also on account of the less demand made upon the patient to remain quiet after the operation; and, above all, on account of the lesser tendency to suppuration of the cornea.

6. The advantages of my method over that of Graefo's are shown by the ultimate results obtained, by not showing a greater percentage of total suppuration than in Graefo's method, my best results are in regard to optical and (if I may use the term) anatomical perfection, identical with the best results obtained in flap extraction.—*British Medical Journal*.

The Canada Lancet,

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TORONTO, MARCH 1, 1872.

AMENDMENTS TO THE MEDICAL ACT.

The Committee appointed by the Council at its last meeting to draft amendments to the Medical Act have completed their labors and framed the following clauses, which have been placed in the hands of Dr. Baxter, to be carried through the House. It is very doubtful, however, at this late stage of the Session, whether or not they will pass the House. Probably it is just as well that they should be laid over for the present, in order that they may be submitted to the profession for approval or amendment:—

1 Section 11 is hereby amended by striking out the words "by a notice" in the thirteenth line down to the words "such election" in the fifteenth and sixteenth lines, and the following hereby substituted "in such manner as shall be provided for by by-law of the council."

2 Section thirteen is hereby amended by striking out the word "Wednesday," fifth line, and substituting the word "Tuesday" therefor.

3 Section fourteen is hereby amended by striking out all the words after "in" in the third line and substituting the words "the manner provided for by by-law of the council."

4 Section twenty-five is hereby amended by adding the following clause, "whenever any registered practitioner of the general school shall signify his wish to become registered as a homoeopathic or eclectic member of the College of Physicians and Surgeons of Ontario, he shall signify such wish to the Regis-

trar in writing, and shall appear at the next regular examination of the Board of Examiners and be examined in the branches herein before mentioned by the examiners approved of by the representatives in the Council of the body to which he has signified his wish to join, and upon such examination being reported to be satisfactory the Board shall report his name as having passed as a homœopathic or eclectic member of the College of Physicians and Surgeons of Ontario, and the Registrar shall register his name upon the payment of such fee as the council may appoint, and all persons so registered shall be entitled to vote for homœopathic or eclectic representatives in the council, as the case may be.

5. Sections forty, forty-one, forty-two and forty-three are hereby repealed, and the following sections and sub-sections are substituted in lieu thereof:—

6. Any person who shall wilfully procure, or attempt to procure, himself to be registered under the said Act, by making or producing, or causing to be made or produced, any false or fraudulent representation or declaration, either verbally or in writing, shall, on conviction thereof before any Justice of the Peace, incur a penalty not exceeding one hundred dollars, and every person knowingly aiding or assisting him therein shall on conviction thereof, incur a penalty of not less than twenty, nor more than fifty dollars.

7. If any person shall procure, or cause to be procured, his registration under the said Act by means of any false or fraudulent representation or declaration, either verbally or in writing, it shall be lawful for the registrar, upon the receipt of evidence which shall be satisfactory to him of the falsity or fraudulent character of said representation or declaration, to erase the name of the said person from the Register, and to make known the fact and cause of such erasure by notice to be published once in the *Ontario Gazette*, and after such notice has appeared, the person whose name has been so erased as aforesaid shall cease to be a member of the said College of Physicians and Surgeons of Ontario, and shall cease to enjoy any of the privileges of registration under the said Act, and shall be disqualified from registering under the said Act at any future time without the express sanction of the council.

8. It shall not be lawful for any person not registered under the said Act to practise Physic, Surgery or Midwifery in Ontario for hire, gain or hope of reward.

9. If any person not registered under the said Act, shall, for hire, gain or hope of reward, practise or profess to practise Physic, Surgery or Midwifery, or advertise to give advice or medicine, he shall, upon a summary conviction before any Justice of the Peace for any and every such offence, pay a

penalty not exceeding one hundred dollars, nor less than twenty dollars, provided always that nothing in this clause contained, shall prevent any person licensed under the Pharmacy Act from compounding medicines when prescribed by a registered practitioner, nor from selling any medicine in the ordinary course of trade.

10. Any person who shall wilfully and falsely pretend to be a Physician, Doctor of Medicine, Licentiate in Medicine, Surgery or Midwifery, Master of Surgery, Bachelor of Medicine, Surgeon or General Practitioner, or shall assume any title, addition or description other than he actually possesses and is legally entitled to, shall be liable on conviction before a Justice of the Peace, to a penalty not exceeding fifty dollars.

11. Any person not registered under the said Act, who shall take or use any name, title, addition or description implying or calculated to lead people to infer that he is registered under the said Act or that he is recognized by law as a Physician, Surgeon, Accoucheur, or a Licentiate in Medicine, Surgery, or Midwifery, shall, upon a summary conviction before any Justice of the Peace, pay a penalty not exceeding one hundred dollars, nor less than twenty-five dollars.

12. In any trial under the said Act as hereby amended, the burden of proof as to registration shall lie upon the person charged, provided always that the register in force for the time being, shall be *prima facie* evidence that the persons named therein are hereby entitled to the diplomas mentioned opposite their respective names.

13. All prosecutions under this Act, or the Act amended by it, may be brought and heard before and by any one or more of Her Majesty's Justices of the Peace having jurisdiction in the locality where any such offence has been committed, and such Justice shall have power to award the payment of costs in addition to the penalty; and in case the penalty and costs awarded by him be not paid forthwith upon conviction, to commit the offender to the common gaol, there to be imprisoned for any term not exceeding three months, unless such penalty and costs be sooner paid.

14. All penalties recoverable under this Act, or under the Act hereby amended, shall be paid to the convicting Justice, and be by him paid to the Treasurer of the Council: all penalties so recovered shall form a part of the general fund of the Council.

15. Any person convicted under this Act, or under the Act hereby amended, who shall give notice of appeal against the decision of the convicting Justice, shall be required, before being released from custody, to give to said Justice satisfactory security for the amount of the penalty and costs of conviction and appeal.

16. Any person may be prosecutor or complainant under this Act, or under the Act hereby amended; provided always that every prosecution under this Act and the Act amended thereby, shall be commenced within one year from the date of the alleged offence.

17. This Act shall be read as part of the Act hereby amended.

AID TO CHARITABLE INSTITUTIONS.

The Honorable member for Norfolk, Dr. Clarke, has been engaged during his spare moments since the session commenced in visiting the various charitable institutions, hospitals, poor-houses, &c., and eliciting information regarding the working of these institutions, with a view to establish them on a more liberal and permanent basis. He has asked for and obtained a parliamentary committee to take the following matters into consideration. The committee consists of the following gentlemen: Hon. Messrs. Blake and Gow, Messrs. Guest and Williams, Drs. Baxter, Wilson, Clarke, and Boulter. The Hon. Mr. McKenzie has also promised to bring in a Bill next Session, based on the report of this committee. The objects aimed at are as follows:—

- 1st. To place the various hospitals on a better financial basis.
- 2nd. To render it imperative upon counties or groups of counties to establish hospitals, and to provide accommodation for the maintenance of the chronic insane, and imbecile.
- 3rd. To establish a permanent Provincial Sanitary Board, or board of health, to which all reports on epidemic and other diseases shall be referred; and
- 4th. To establish one or more inebriate asylums, &c.

In reference to the above matter, the suggestions and opinions of the medical profession and others are earnestly solicited, and will receive every attention. We hope the honorable gentleman may be successful in his efforts; and we have no doubt that the profession here and throughout the country will lend him every assistance and support in his important inquiries, and warmly second his efforts in the direction above indicated. The Toronto General Hospital will come in for a share of the honorable gentleman's attention, and probably no other institution in the Province is more in want of assistance than this. At present, though capable of accommodating 300 patients,

there are only 50 free beds in the institution. The building is finely situated, having good facilities for proper drainage, and with a little improvement in the ventilation, and means to place it within reach of the unfortunate poor, it could be made one of the best appointed and most useful of the kind in the Dominion. It is managed by a very efficient board of trustees, and has an excellent hospital staff; and we trust that the government may be induced to give it that assistance which it so much stands in need of to make it what it ought to be—a blessing to the afflicted poor.

MEDICAL COUNCIL ELECTIONS.

In the last number of the *Lancet* we requested our friends to send us the names of probable candidates for election to the Medical Council in June next. In so far as our request has been complied with, we are enabled to state that Dr. Jas. A. Grant, of Ottawa, will be a candidate for the Territorial Division of Bathurst and Rideau, in opposition to the present representative, Dr. Mostyn, of Almonte. Dr. Bray, of Chatham, for Western and St. Clair, in opposition to Dr. Edwards, Strathroy. Dr. Hodder of the Medical Faculty of Trinity College Medical School, will be a candidate for the University of Trinity College, Toronto, in opposition to Dr. C. B. Hall, the present incumbent.

MATRICULATION EXAMINATION.—The next Quarterly Matriculation examination of the Council of the College of Physicians and Surgeons, Ont., will be held in the Grammar School, Toronto, and also in Kingston, on the first Tuesday and Wednesday in April.

PROFESSIONAL EXAMINATIONS, COLLEGE OF PHYSICIANS AND SURGEONS, ONT.—We are informed that a meeting of the Executive Committee will be held at an early date to fix the time and place for holding the above examinations. Although it has not been definitely settled, we are in a position to say that in all probability they will commence on Wednesday, the 3rd of April.

VACCINE.—We have received several enquiries from our subscribers regarding the reliability of the vaccine virus sup-

plied by Dr. Martin, of Boston Highlands. We beg to say that, a few weeks ago, we ordered a crust, one remove from the cow, and it gave the most entire satisfaction. It has not failed in a single instance. Our friend, Dr. Covernton, of Simeoe, also received some of the points, direct from the cow, through Dr. Clarke, of St. Catharines, which also proved highly satisfactory. We have, therefore, no hesitation in recommending the virus as supplied by Dr. Martin.

DECLARATION REGARDING ALCOHOL.

The following "declaration" regarding the use of alcohol, by medical men for their patients, has lately been published in all the leading medical journals in England. It contains the signatures of the most eminent medical men in London, and many others of lesser note, to the number of two hundred and fifty-four:

"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness and welfare of those classes, and neutralizing, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise

legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance."

While protesting against the first paragraph, on the ground that it would appear to attribute to the profession the creation of intemperate habits, we are of the opinion that this important document has not appeared a moment too soon. A great deal of harm may undoubtedly be done by the careless and indiscriminate use of alcohol by medical men for their patients. Such a movement on the part of the medical profession in our own country would not be amiss. In the meantime we hope that the publication of the above declaration may not be without its beneficial effect, and that greater care and discrimination may be exercised in the administration of this useful, though much abused remedy.

NOTES AND COMMENTS.

INNERVATION.—In the present number will be found an article on "the phenomena of life," by Dr. Freely, of Markham. It is the continuation of a preceding article which was published in the April Number, for 1871. If any of our now subscribers would like to have the whole article we will be happy to supply them with the number of the *Lancet* referred to.

GLUE BANDAGE FOR FRACTURES.—Dr. McCallum, of the Montreal General Hospital, (*Canada Medical Journal*), has lately introduced the use of the *Glue Bandage* as a primary setting in the treatment of fractured limbs. Patients thus treated are permitted to get up on the third day and move about on crutches. The bandages do not get out of order, and the advantages more than counterbalance any trouble that is necessary in its application.

TREATMENT OF SMALL-POX.—Dr. Marsden, of Quebec, (in the *Medical Record* for July 15th), recommends three drops of Balsam Copaiba, rubbed up with a little Albumen, or Mucilage and Syrup in the treatment of small pox. The idea originated with Dr. Rowand, one of the Surgeons of the Marine and Emigrant Hospital, Que. It is claimed for the above remedy that it arrests the process of pustular development and consequent desquamation and suspends the disease.

VACCINATION.—We have received a communication from Dr. N. Munro, of Brucefield, in which he urges the propriety of repeated vaccination as long as it will take effect as a preventive of the spread of small-pox. In reference to revaccination he states that in his experience sixty per cent are susceptible of taking a second time, forty per cent a third time, and ten per cent a fourth time, and therefore he submits that it is incumbent on old and young to be repeatedly vaccinated, until it fails to make any impression on the system.

HONORS.—Dr. Gardner, professor of Medical Jurisprudence in the Medical Faculty of Bishop's College, Montreal, has been elected Fellow of the Obstetrical Society, London, England.

BOOK NOTICES.

ANÆSTHESIA, HOSPITALISM, &c., by Sir James Y. Simpson, Bart, M.D., D.C.L. Edited by his son, Sir. W. G. Simpson, Bart, B.A. New York: D. Appleton & Co. Toronto: Copp, Clark & Co. pp. 553.

This work contains most of Dr. Simpson's articles, correspondence &c., on the subject of Anæsthesia, written from time to time, some of which have already been published in the periodicals of the day, and are now transferred to the present volume. The volume opens out with a History of Anæsthesia and its defence. The nature and powers of various anæsthetics and their application to surgery and obstetrics are next taken up, and followed by some remarks on local Anæsthesia. On the subject of Hospitalism, the author has been at considerable pains to collect statistics from different sources, showing the differential death-rate between country and hospital amputations. He next discusses the causes of this difference, and suggests certain improvements in the sanitary condition of hospitals. Considerable space is devoted to the interesting subject of Hermaproditism, which the author divides into *true* and *spurious*, the former including all cases in which there is a blending of both male and female organs in the same individual, and the latter comprehending malformations of the genitals of one sex, approximating in appearance those of the opposite. The author concludes with an article on the process of stamping out small-pox and other contagious diseases. This part is especially interesting at the present time, in view of the present epidemic.