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CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

What is Insanity? By Mr. THOS. D. KING.

"I have some of them in Limbo Patrum, and there they are likely to dance these three days."—*King Henry VIII.*, Act 1, Scene 3.

Plato says: "Everybody that is moved from without is soulless, but that which is moved from within of itself possesses a soul, since this is the very nature of soul." And so says *Bacon*: "All spirits and souls of men come forth out of one divine limbus."

If it is difficult to draw the line of demarkation between the vegetable and animal kingdoms it is also difficult to determine where folly ends and insanity begins, and, also, to make the line of division between instinct and intelligence. There are a large class of minute cell-like bodies about which our best microscopists differ in opinion. There is yet a doubt whether they belong to the animal or vegetable kingdom. *Ehrenberg*, even with the aid of the best microscopes, could not determine whether these minute organisms are to be classed with animals or plants. Their apparently voluntary motion is not sufficient to settle the question. *Dr. Lankester* resolves the essential organic difference between the two kingdoms into a difference of merely chemical operations. The fly-catching movement of the leaf of *Dionæa*, or the vibrating motion of the leaflet of *Hydesarum*, or the life-like motion of the sensitive *Mimosa*, is a mere result of organization and of the action of external or internal physical forces, or both together, though *Schleiden** cannot, with the microscope, discover the causes. Some very able palæontologists doubt the foramineferous structure of the "*Eozoon Canadense*."

The phrenologists assume a whole psychology, wherein the human mind appears to be an agglomeration of some forty distinct faculties and powers within the skull. The psychologists say that sensation, ideation, and consciousness, lie in the "sensorium" in

* *Schleiden's Principles of Botany*, p. 554, (London, 1849).

the sensory ganglia, and discover "internal senses" in the commissural fibres, and place the will and intelligence in the cortical substance of the cerebral hemispheres.

Others daringly attempt to define the seat of the mind or soul, perhaps as great a piece of folly, or presumption, or madness, as to try and find out by thought alone the nature of the Almighty; or whether he existed before time, or had Himself a beginning. Again, others will maintain that our earth is the only inhabited world in the universe, while some try to make us believe that the planets and stars are worlds with life, and are inhabited by rational and immortal beings.

Some divide the causes and symptoms of insanity into physical and moral, or bodily and mental. Physicians, jurists, and critics have expended much labour and ingenuity about the insanity of Hamlet—an ideal character—and are at variance whether his madness is real or simulated. Some of the arguments upon both sides are plausible and obvious, others absurdly fanciful and far-fetched, as much so as those of the sceptics, or lunatics, who endeavour to make us believe that Pisistratus compiled the Iliad and the Odyssey, and that Francis Bacon, Lord Verulam, is the author of the plays of Hamlet and Lear, and that his profound dramatic genius produced such characters as Lady Macbeth, Ophelia and Edgar, the poor *Tom O'Bedlam*.

The arguers upon both sides of a question, with their metaphysical dogmas, pathological and physiological deductions, who apply principles and display the slightest bias in the application of them, may each repel the idea of being mad, and may be ready to exclaim after the exposition of some startling theory or original idea :

"It is not madness

That I have utter'd: bring me to the test,
And I the matter will reword; which madness
Would gambol from."

The man who believes that

"Each of the stars is a religious house,
And sees their altars smoke, their incense rise,
And hears hosannas ring through every sphere,"

will have some non-believer in the "Plurality of Worlds" saying to him :

—— "to deal plainly,
I fear thou art not in thy perfect mind."

There is an excellent story told of Hannibal, with which, doubtless, every reader of this journal is acquainted. It is this:—When an exile at a foreign court he was invited to attend a lecture; but

when asked, at the end of the performance, by one of the admiring audience what he thought of it, with characteristic bluntness he replied "that it had been his lot in the course of his life, to meet with many old dotards, but never one who so fully deserved that title as the man who had just dared to lecture upon the art of war in the presence of Hannibal." It is probable that the writer may be considered either mad or a dotard to venture to express a thought upon the subject of insanity, because if he was asked to define true madness he would only be able to answer, in the words of Polonius :

"What is't, *but to be nothing else but mad :*
But let that go ;"

and judging from the definitions of insanity given by some physicians and jurists, whose thoughts upon the subject are

"Combinations of disjointed things;"

it is evident that they are not much more explicit, and that they have much to learn on the subject of mental derangement, and that their knowledge of insanity has not kept pace with their knowledge of other distempers. Some are content to say that the poor patient

"Fell into sadness ; thence into a fast ;
Thence to a watch ; thence into a weakness ;
Thence to a lightness ; and, by this declension,
Into the madness wherein now he raves,
And we all mourn for."

The writer considers that there is a great difference between what is generally understood by the word insanity and the nervous or melancholy disorders, the excess of which is so often confounded with it. Insanity may be traced to a malformation of the brain, not to an excess of brain, and is by no means of necessity attended with melancholy and ill-health. The patient in the very midst of it is often strong, healthy, and even cheerful. On the other hand, nervous disorders, or even melancholy in its most aggravated form, is nothing but the excess of a state of stomach and blood, extremely common. "An enemy may be put into the mouth to steal away the brains." The mind, no doubt, will act upon that state, and exasperate it; but there is great reaction between mind and body; and as it is a common thing for a man in an ordinary fever, or fit of the bile, or acute dyspepsia, to be melan-

choly, and even to do and feel inclined to do an extravagant thing, so it is as common for him to get well and be quite cheerful again;

“ And thus a-while the fit, will work on him ;
Anon, as patient as the female dove,
When that her golden couplets are disclos'd,
His silence will sit drooping.”

Thus it is among witless people that the true insanity will be found. It is the more intelligent that are subject to the other disorders, and a proper use of their intelligence will show them what the disorders are.

But weak treatment may frighten the intelligent. A kind person, for instance, in a fit of melancholy, may confess that he feels an inclination to do some desperate or even cruel thing. This is often treated at once as insanity, instead of an excess of the kind just mentioned; and the person seeing he is thought mad, begins to think himself so, and at last acts as if he were. This is a lamentable evil; but it does not stop here. The children or other relatives of the person may become victims to the mistake. They think there is madness, as the phrase is, “in the family,” and so whenever they feel ill or meet with a misfortune, and get what is commonly called a “fit of the blues,” the thought will prey upon their minds; and this may lead to catastrophes with which they have really no more to do than any other sick or unfortunate people. How many persons have committed an extravagance, done some more than eccentric thing in a brain fever, or undergone hallucinations of mind in consequence of getting an ague, or taking opium or morphine, or fifty other causes; and yet the moment the least wandering of mind is observed in them, others become frightened; their fright is manifested beyond all necessity; and the patients and their family must suffer for it. They seem to think that no disorder can properly be held a true Christian sickness, and fit for charitable interpretation, but where the patient has gone regularly to bed, and had caudle-cups, and water-gruel, and nurses about him, like a well-behaved respectable sick gentleman, and has had a litany said for him in common with all others afflicted in mind, body, or estate. But this state of things implies muscular weakness, or weakness of that sort which renders the bodily action feeble. Now, in nervous disorders the muscular action may be as strong as ever; and people may reasonably be allowed a world of illness, sitting in their arm-chairs, or even walking or running.

These mistaken pronouncers upon disease ought to be told, that when they are thus unwarrantably frightened, they are partaking

of the very essence of what they misapprehend; for it is *fear*, in all its various degrees and modifications, which is at the bottom of nervousness and melancholy; not fear in its ordinary sense, as opposed to cowardice, but imaginative fear.

Macbeth says :

“I am afraid to think what I have done;
Look-on't again I dare not.”

Again :

“How is't when every noise appals me?”

And yet he, in another place, says :

“What man dare, I dare:
Approach thou, like the rugged Russian bear,
The arm'd rhinoceros, or the Hyrcan tiger;
Take any shape but that, and my firm nerves
Shall never tremble.”

With this melancholy there is sometimes either a fear of something known, or the patient knows not what;—a vague sense of terror,—an impulse,—an apprehension of ill,—dwelling upon some painful, and worrying, and terrible thought. Hundreds will be found to have felt it, if the patients inquire; but the mind is sometimes afraid of acknowledging its apprehensions even to itself, and thus fear broods over fear and hatches fear.

These sufferings and imaginings are often connected with a weak state of the body in some respects, particularly of the stomach. Sometimes melancholy is produced for want of exercise, and long-continued confinement, and want of proper and sufficient food.

Shakspeare says :

—— “Abstinence engenders maladies,
And universal plodding prisons up
The nimble spirits of the arteries.
Sweet recreation barr'd, what doth ensue
But moody and dull melancholy
Kinsman to grim and comfortless despair,
And at her heels a huge infectious troop
Of pale distemperatures and foes to life?
In food, in sport, and life-preserving rest
To be disturbed, would *mad* or man or beast.”

Insanity itself, perhaps, properly means but unhealthiness or unsoundness. Melancholy is composed of two words, which signify dark bile. Hypochondria is the name of one of the regions of the stomach—a very instructive etymology. And lunacy refers to effects, real or imaginary, of particular states of the moon, which, if anything after all, are nothing more than what every

delicate constitution feels in its degree from particular states of the weather ; for weather is apt to be in such and such a condition when the moon presents such and such a phase. For it is generally admitted that the attraction of the moon and the sun, which produces the tides of the ocean, occasions atmospheric tides also ; and it is very probable, indeed, that the latter may, especially at epochs when they are the strongest, determine changes in the condition of the weather. M. Arago, in a remarkable dissertation* relative to the influence of lunar phases on atmospheric phenomena and the vegetable realm, has established incontestable facts which, while destroying errors hitherto accepted, still prove that popular notions on the subject are not altogether without foundation.

It has been said :

“ Great wits to madness nearly are allied.”

It is curious that Dryden, who wrote the saying, was a very sound wit to the end of his life ; while his wife, who was of a weak understanding, became insane.

Wordsworth has written an idle couplet about the insanity of poets :

“ We poets enter on our path with gladness,
But thereof comes in the end despondency and madness.”

If he did not mean madness in the ordinary sense, he should not have written this line ; if he did, he should not have fallen, in the teeth of his information, into so vulgar an error.

There are very few instances of insane poets—true poets, who seek that glorious immortality of true greatness

“ That lives and spreads aloft by those pure eyes
And perfect witness of all-judging Jove,”

or of insane great understandings of any sort.

Chaucer, Spenser, Shakspeare, Milton, Dante, Homer, Virgil, and many others were not mad ; their minds were as sound as they were great. So might be said of Michael Angelo, Raffaele, Newton, Bacon, Herschel, Burleigh, Sir Walter Raleigh, Sir Philip Sidney, Sir Francis Drake, Hampden, Cromwell, Bunyan, Clarendon, Chatham, Pitt, and a galaxy of great men, statesmen, warriors, philosophers and poets. So it has been with the infinite majority of the great men, renowned in art and literature, of all countries. If Tasso and a few others were exceptions, they were

* “ *Annuaire of the Bureau of Longitude.* - 1832-1833.” See, also, in the “ *Annales Hydrographiques,*” 1st trimestre of 1864, the note on Meteorology by Admiral Fitzroy.

but exceptions, and the derangement in these eminent men has very doubtful characters about it, and is sometimes made a question.

Collins, whose case was after all one of inanition rather than insanity, had been a free-liver, and seems to have been hurt by having a fortune left him. Cowper was weak-bodied and was beset by religion mongers. Swift's body was full of bad humours. He himself attributed his disordered system to the effects of a surfeit, and in his last illness he broke out in enormous boils and blisters. This was a violent effort to help and purify the current of blood—the main object in all such cases. Dr. Johnson, who was subject to mists of melancholy, used to fancy he should go mad, but he never did.

The writer is not a believer in *madness in great minds*, hence one reason for his not sharing the belief with Dr. Ray, author of "Contributions to Mental Pathology," that Hamlet's insanity was real. Shakspeare has probably breathed more of himself into his Hamlet than into any other of his dramatic persons; his is a cast of mind at once philosophic and poetic; at once serious and mirthful; at once affectionate and brave: at once acutely observant of others, and profoundly reflective on self; instinct with noble sentiments, solemn convictions, immortal expectations. It is not of such material that lunatics are made of. The writer would like to know, from those who have most carefully studied the pathology of insanity, where there is a parallel case. It seems that in the thoughtful Prince of Denmark we overhear more of Shakspeare's inner man, his secret and serious cogitations and impressions. Hamlet is more profound in thought, more eloquent in language, than any other of Shakspeare's characters; he is marked by a solemnity of sentiment. Few madmen would like Hamlet, yearning after escape from life, restrain themselves from the act of suicide, by the apprehension of "something after death."

The subject is too long for discussion.* Schlegel says: "Hamlet acts the part of madness with inimitable superiority." The writer thinks so too, and he thinks his supposed madness is contradicted by his own words, where, speaking in confidence to his friend Horatio, he says:

"How *strange* or *odd* soe'er I bear myself;
As I, perchance, hereafter shall think meet
To put an *antick* disposition on."

* Read a work entitled "Shakspeare Treasury," by Charles W. Stearns, M.D., published by G. P. Putnam & Son.

And again, where in his remonstrance with his mother, he says :

“ Let not the bloated king
Make you to ravel all this matter out,
That I, essentially, am *not* in madness
But mad in craft.”

Hamlet had special reasons for not wishing his mother to lay the flattering unction to her soul that he was mad, as it would have destroyed the effect of his severe reproof to her for living in adultery with his uncle, thus not only disgracing herself, but bringing dishonour upon himself.

In the History of Hamblet, * Prince of Denmarke, we learn that the happiness of Horvendille, King of Denmarke, excited the envy of his brother Fengon, who was, moreover, enflamed by love for Geruth, the Queen. The villain paused not to commit a fratricide which placed him on the throne, and facilitated his union with the object of his guilty passion.

Hamblet, the son of Horvendille and Geruth, was quick in his perception of the danger to be apprehended from the murderer of his father, and sought safety in the appearance of mental imbecility, in fact, counterfeited the madman to escape the tyrannie of his uncle, and was greatly tempted by a woman (through his uncle's procurement) who thereby sought to undermine the Prince, and by that means to finde out whether he counterfeited madnesse or not. The woman was accompanied by certain courtiers who were deceived by Hamblet, and who assured themselves that without doubt he was distraught of his senses.

We learn also how Fengon, uncle to Hamblet, a second time to intrap him in his politick madnesse, caused one of his counsellors to be secretly hidden in the Queen's chamber, behind the arras, to heare what speeches passed between Hamblet and the Queen; and how Hamblet killed him, and escaped that danger, and how he was sent to England with secret letters compassing his death, and how Hamblet, when his companions slept, read the letters, and instead of them counterfeited others—or razed out the letters that concerned his death, and instead thereof graved others with commission to the King of England to hang his companions. Everything fell out as Hamblet desired; his attendants were executed.

We also learn that after Hamblet had killed his uncle Fengon he discarded the cloak of folly in which he had hitherto disguised

* “Shakespeare's Library.” by J. Payne Collier. 1850. A collection of ancient Novels, Romances, Legends, Poems and Histories used by Shakspeare as the foundation of his dramas.

his intellect, and, convening an assembly of the nobility, explained and justified his conduct. In fact he did what Shakspeare's Hamlet requested Horatio to do :

—— “ Report me and my cause aright
To the unsatisfied.”

It seems strange that Hamlet should always be perfectly sane or rational when he is in company with Horatio; he never exhibits to him any of those “fitful incoherencies” and “antick dispositions” which he betrays to Rosencrantz, Guildenstern and Polonius, whom he regards as spies set to “pluck out the heart of his mystery and sound him from the lowest note to the top of his compass.”

Again, when Hamlet is alone, if we reflect upon his awful reverence for the Great Supreme, his reflections on man and his admiration of the works of nature, the philosophic turn of his mind, his acute penetration, his observations upon an infinity of unconnected and dissimilar subjects, who shall pronounce him mad—insane—bereft of reason—“driven into desperate terms”? He may have had a morbid melancholy preying upon his heart; his views of life may have been clouded; he may have been weary of the world and disgusted with his fellow-creatures. There are thousands such who are not irresponsible beings.

“What is this quintessence? Man delights not me,—nor woman neither.” Would they delight any one under similar circumstances? A loving father

“Cut off in the blossom of *his* sin,
Unhouse'd, disappointed, unanel'd;
No reckoning made, but sent to *his* account
With all *his* imperfections on his head.”

The fair Ophelia, whom he loved to such an extent that

“Forty thousand brothers
Could not, with all their quantity of love,
Make up *his* sum,”

locking herself from his resort, admitting no messengers, repelling his letters, denying his access to her, his remembrances suddenly and ungraciously returned to him:

“His path ever dogged by spies.”

Yet we are asked to believe Hamlet to be mad because he is harsh to Ophelia, sarcastic to Polonius, and discorteous to Rosencrantz and Guildenstern, disdainful to the King who had “killed

his father, *abused* his mother, popped in between the election and his hopes, and thrown out his angle for his proper life."

A careful reading of the *Hystorie of Hamlet*, to which reference has been made, contributes much toward the illustration of a character deemed peculiarly difficult. It will assign rational motives for actions otherwise unintelligible, and lay the foundation for the necessary distinction that has been made between the natural and artificial character of Hamlet, and will explain the reason for his deperiment to Ophelia.

The Ophthalmoscopic Appearances in Certain Cases of Epilepsy
By REUBEN A. VANCE, M.D., New York City.

The ophthalmoscopic appearances in the following cases are so peculiar and interesting that I desire to call the attention of other observers to them, and, as the mechanism of their production is closely connected with many physiological actions and pathological processes, to learn from the researches of others the relative frequency with which these phenomena occur in individuals suffering from the various forms of cerebral diseases attended by loss or impairment of consciousness

Case I.—One morning during the early part of February, 1871, while making an ophthalmoscopic examination of a young gentleman under my care for epilepsy, the parts in the region of the optic nerve-entrance of the right eye being in view, certain vessels disappeared, the papilla underwent a peculiar but not very definite change, and the patient fell to the floor in a fit. Prior to the attack, the arteries and veins were very distinct, and the vascular branches of the disk quite easily traced. At the moment of attack certain vessels contracted, but whether they were discal or retinal I was unable to determine, from the sudden movement of the patient. About two hours subsequently I again made an ophthalmoscopic examination, and found the retinal veins enlarged and tortuous, and the parts about the nerve-entrance very much congested.

Case II.—Another patient under my care at the same time, who originally suffered from attacks of the *grand mal*, due to cerebral congestion, ultimately recovered to such an extent that the paroxysms of the severer form of the disease had entirely disappeared. He complained, however, of sudden momentary attacks of vertigo, which recurred many times a day. He did not stagger or fall—in short, presented no external indications of anything wrong, at such times—but was quite fearful lest these new symptoms might indicate a tendency to apoplexy. While making an

ophthalmoscopic examination on one occasion I observed a sudden diminution in the size of the main trunks of the retinal arteries, with pallor of the disk, followed by dilatation of the vessels and increased vascularity of the parts near the papilla, coinciding with a brief lapse of consciousness. At another time I again saw somewhat similar phenomena, but much less marked.

Case III.—A young lady at present under my care suffers from both forms of the disease. Attacks of the *grand mal* recurs monthly, but the *petit mal* is manifested many times daily. As any excitement will develop the latter I have repeatedly observed the ophthalmoscopic appearances which accompany it. These vary with the severity of the attack, which is occasionally the merest sense of vertigo, and at other times complete, though momentary loss of consciousness, with or without local muscular movements of the upper extremities. With the vertiginous sensations, slight but distinct waves of contraction can be seen in the retinal arteries, with temporary fullness of the retinal veins, *followed by collapse of the same, the arteries still remaining small and thread-like.* With the loss of consciousness and local muscular movements there is noticed a short and spasmodic inspiratory movement, accompanied by a gasping sound. With these attacks the intra-ocular changes are most marked, the collapse of both arteries and veins is very apparent. The arteries emptying themselves by a wave of contraction passing from the centre to the periphery, these veins, after a brief but distinct interval of distension, are rendered bloodless by a movement too quick to be appreciated in detail. The vascularity of the disk, at the same moment, is very much diminished. Between the attacks the intra-ocular structures are moderately congested.

Postponing, for the present, any discussion of the various theories of epilepsy, and viewing the phenomena observed in these cases as isolated clinical facts, I would simply call attention to the close connection existing between spasm of the muscular coats of the intra-cranial vessels and loss or impairment of consciousness. These cases show that the ophthalmoscope occasionally reveals similar vascular phenomena in the intra-ocular structures, occurring coincidentally with either form of the disease. The comparative frequency of cases in which these changes can be seen is a matter that can only be determined by a more general employment of the ophthalmoscope in convulsive disorders by the physicians who treat them. Such observations, conducted by different observers, will doubtless be productive of valuable results, and should it be found that the phenomena presented in these three cases can be seen to occur in others, it will not only materially advance our

knowledge of the manner in which convulsive phenomena are initiated, but will indicate the method in which disease in general acts to suspend or abolish the functional activity of different bodily organs.

In the third case referred to the peculiar appearance presented by the retinal veins is alluded to. The sudden evacuation of their contents was a phenomenon that at first seemed inexplicable, but subsequent observation revealed the fact that it occurred with inspiration, and was of the same nature as the collapse of the superficial veins of the neck, which can often be seen with that act.

NEW YORK, 124 East 27th Street, 9th May, 1873.

Some Conclusions in Regard to General Paresis, with the Report of a Case under Observation. By HORATIO R. BIGELOW, Boston, Mass.

A case of general paresis now under treatment, although only in the first of the three stages described by Calmeil, suggests a few conclusions in regard to some of the characteristic nervous phenomena which form a prominent symptom in the development of the disease.

First of the Case.—The patient is a man fifty years old, tall and stout; the forehead is very narrow transversely, depressed in the region of the speno-frontal articulation and at the cranial and vertex; the face, when at rest, is entirely devoid of expression, the integumental folds are obliterated; the chin is corrugated from contraction of the levator-menti muscle; the complexion is sallow; the eyes are sleepy and dull, the pupil of the right being larger than that of the left, and dilating irregularly; there is an air of perfect placidity and great self-importance about the patient's demeanor; the appetite is almost voracious, at the same time that it is capricious; there is, also, occasional regurgitation of the food.

Local Alterations.—Muscles of tongue affected; there is hesitancy of utterance, inability to pronounce the labials correctly, a slurring, guttural manner of speech, but with no disposition to garrulousness, the patient recognizing his own defects; while giving utterance to certain words the head is thrown slightly upward, and the lower lip twitches spasmodically, conveying a peculiar motion to the chin; the tongue alternately contracts and relaxes when protruded.

Motor Functions.—Some of the local phenomena might point to a more advanced stage of the disease, were it not for the fact that the motor functions of the extremities are not perceptibly impli-

cated; the patient's walk is a language of its own, it conveys the entire of egotistical importance, that entire indifference to other mortals which is so characteristic of the mental condition of the patient; the foot, but slightly raised from the ground, is advanced slowly, with but little flexion of the leg, and planted flat on the ground with a determined air.

Mental Condition.—There is unvarying contentment of mind, buoyancy of spirit, and unclouded hope; to an interrogation as to the state of his health, he would make reply, "First rate; never better," &c.; he is fond of discoursing upon the extent of his business, his charming residence, and his family connections; he is contemplating a tour on the continent, with his family, to extend over a period of many months; his memory of past events is perfect, but he cannot remember the substance of what he has read five minutes previously; he has developed a decided tendency to kleptomania of late, using much ingenuity in concealing his depredations; he has great elation of ideas, and sees everything *couleur à rose*.

Ophthalmoscopic Signs.—Congestion (slight) of the disk.

I am aware that his case presents no features hitherto unknown to the profession, but it is an excuse for dwelling somewhat upon the value of the ophthalmoscope in the diagnosis of cerebral diseases, and for advancing a few theories in regard to the mental implications.

I am indebted to my friend Dr. R. A. Vance, an eminent practitioner of New York City, for the valuable data in relation to the ophthalmoscopic signs in general paresis.

"In every case of general paralysis that has fallen under my observation, the ophth' almoscope has revealed morbid changes of a vascular, neuritic, or atrophic character. In thirty-one cases of which I have notes of the intra-ocular appearances at the time I first examined them with the ophthalmoscope, eleven presented evidences of atrophy of the disk and surrounding parts of the retina, thirteen of neuro-retinitis, and seven of congestion of the disk and retina. Those cases in which neuritic and atrophic changes were marked were of long standing, while those in which vascular derangement alone was present were in the early stages of the disease. In three out of seven cases characterised by congestion of the intra-ocular structures, reported ophthalmoscopic observations demonstrated the subsequent development of neuro-retinitis, which finally terminated in atrophy of the intra-ocular portion of the optic nerve. The rapidity with which the neuritic and atrophic changes succeed the congestive appearances bears no relation to the general progress of the intra-cranial disease, but

seems to depend upon local causes which, as yet, have not been determined."

The "elation of the ideas" is due to a vicious action of the vesicular neurine of the ideational centres, rather than to an exaltation of the faculties of the mind. The molecular condition representing imagination undergoes a specific, minute change, by which its harmonious action with the centres of judgment becomes disrupted, and commonplace expression results. One of the first appreciable mental changes of general paresis consists in this perverted imagination, this intellectual feebleness; and from the consideration of these symptoms we are led to a probable location of the universal lesion. There is in this disease a very manifest want of emotional control. Now, as emotion depends upon the sensibility of the vesicular neurine to ideas, and as the idea depends upon the impression made upon the supreme centres,* it follows that any molecular change of this latter will affect all the mental organization. Since we believe that the human mind is the perfected harmonious *force*, generated by the ideational centres, and that this force will vary in intensity according as it is evolved by a more or less intricate arrangement of the cerebral convolutions, and from a small or large number of cells. The emotional aberration depends directly upon a degeneration of will, which we should expect to be the case, as no such abstraction of *the will*, apart from its mental relationship, has a recognized existence. That memory preserves its integrity to an advanced period in paresis may be due to the fact that the centres in which ideas are registered are the last to yield to the vicious action, or that the residual force of the previous normal condition thus stored up discharges with fidelity its routine of the past, without having sufficient vital organization to retain impressions of the present. Corroborating instances of this species of conservatism are by no means rare in the life of private practitioners, being frequently met with in the course of certain febrile and cerebral diseases. In every organic element of the body there is this registration of ideas, and the impression once made is indestructible; but as the integrity of action depends upon the harmonious assimilation of philosophical ideas, the retentive power may be perverted or obscured by an abnormal condition of the ideational centres. From the relation and assimilation of ideas emanate imagination, hence a vivid imagination would result from some molecular change in the centres generating the idea, while an unhealthy imagination would depend upon diseased action of those centres.

* Mandsley's "Body and Mind."

Whether the paralysis precedes the mental degeneration or is preceded by it must, at present, be considered as *sub judice*; but I am inclined to believe that, in the great majority of cases, want of motor co-ordination is secondary to the nervous lesion. This supposition is based upon a knowledge of the intimate and dependent relationship of the sensory-motor and higher nervous centres. A disease of one centre, by a process of vicarious emigration, may convey its contaminating influence to a very remote cell, whose functions in the processes of life and thought may be of an entirely different nature, thus developing a complex irregularity out of the original simple lesion. Who shall limit the extent of power in the higher centres? or who can measure the dependence of the physical upon the psychological? The minutest polar change in the molecular arrangement of the vesicular neurine of these supreme centres is felt, sometimes inappreciably, throughout the human organism. A prick of a pin conveys to a special department its sense of pain, and immediately a reflex action ensues in the member thus abused; but if disease interrupt the action of this nervous centre, anæsthesia of the parts supplied by it necessarily results, so soon as the primary residual force shall have spent itself. In those cases of general paresis in which it is asserted that the paralysis manifested itself primarily it is more than probable that the mental lesion did exist, but manifested itself by such slight external symptoms as to have been overlooked.

Notes of a Case of Cerebro Spinal Meningitis. By JOHN BELL, A.M. Ex., M.D.; Physician to the Infants' Home, Montreal.

(Read before the Medico-Chirurgical Society.)

On Wednesday, April 9th, 1873, I was called to see a girl, A. R., aged 13, who had been attending one of the public schools, for the spring examinations in which she had been reading hard. During the summer she lives in the country, and she has always been an unusually strong, well formed, but quiet girl, fond of out-door exercise. Her parents are strong and healthy, as well as all the rest of the children of their family.

For five days before I was called in she had been drowsy in the evenings, and had not felt so well as usual, which was put down to biliousness and hard study. When I saw her she had been vomiting more or less for two or three days, and complained of pain and an uncomfortable feeling in the head, with weakness and loss of appetite. There was, also, some pain in the back which, she thought, was due to her having been in bed since the day before. From the season and extremely dirty surroundings of the

house in which she lived, I at first suspected that at the worst this would turn out to be a case of typhoid fever. I prescribed lime-water and milk, which at once arrested the vomiting, and as recommended by Harley in the early stage of typhoid fever, and which I have always found very useful, I gave a few small doses of grey powder. Her head was frequently bathed in cold water, which removed the pain in the head.

Until Sunday, the 13th, she continued to improve in every way; her tongue, which at first had been coated, cleaned off, leaving only a dirty, brownish streak along the middle; the headache had disappeared, although there was still some pain in the lumbar region, and sometimes between the shoulders. I had seen her at 2 p.m. in the above apparently convalescent condition, and about 10 p.m. she had fallen asleep, feeling unusually well, but woke up about an hour afterwards unable to speak, when I was sent for in haste, as it was thought she was dying. Found her pulse 104; temperature 100.6; her bowels had not been moved as usual during the day, so I gave her a purgative dose of calomel, and ordered a few gr. xx. doses of bromid of potassium. I now expected that I had a case of cerebro-spinal meningitis to treat, probably of the epidemic form. From this time I made notes of the case, which I will merely copy from my pocket-book even at the risk of being prolix and particular.

April 14th, Monday 10 a.m.—Pulse 112; temperature 100.7; is rather more sensible or conscious than she was at time of visit last night; forms her mouth to speak but cannot utter a word; stiffness of neck and back, on attempting to move, is well marked. To have snow covered with flannel constantly applied to head and back of neck.

6 p.m.—Respirations 25; pulse 112; temperature 100.8; began to speak at 1 p.m.; is very drowsy, and irritable when disturbed. To have Bromid. Pot., gr. x.; Pot. Iod., gr. v.; Quinine, gr. j., every four hours; with gr. j. doses of Calomel at the same intervals of time.

April 15th, 11 a.m.—Respirations 30; pulse 120; temperature 100.5; became almost perfectly conscious about half-past two this morning, and thought it was still Sunday night; bowels moved twice during the night; neck not quite so rigid as before, and has no pain except when moved; there is some pain in the muscles of the legs when they are forcibly straightened, but none when flexed.

6 p.m.—Respirations 28; pulse 112; temperature 99.2.

April 16th, 11 a.m.—Respirations 27; pulse 112; temperature 99.2; she became quite conscious about three this morning; neck stiff, and pain caused by attempt to bend head forward; belly still somewhat retracted; she passed an alvine evacuation of a greenish-

brown colour in bed this morning; a few bright-red, slightly raised, acuminate spots are out on her arms.

6 p.m.—Pulse 108; temperature 100.8.

11 p.m.—Respirations 21; pulse 112; temperature 99.6; has passed three motions in bed during the day, and has occasionally felt the clothes as if measuring the edge of the coverlet; if disturbed would draw the bed-clothes up under her chin and then rest quietly; the skin was very warm at six, now cool, with slight *cutis anserina*. To continue same medicines and applications, and has for diet strong beef-tea with milk and eggs.

April 17th, Thursday, 11 a.m.—Respirations 32; pulse 135; temperature 99.5; rested quietly all night; not quite so conscious as before, but knows those around her, and asks for drinks; passes evacuations in bed, but is apparently aware of it.

6 p.m.—Respirations 33; pulse 140; temperature 100.6; seems conscious, but is not like her usual self; gums slightly "touched," bleeding when pressed. Stopped Calomel powders.

April 18th.—Respirations 34; pulse 150; temperature 101.2; slept from eleven last night till eight this morning, when she was taken out of bed to have it changed, during which process she helped herself a good deal although very weak; occasionally picked at the bed-clothes during sleep; she asked to get up to stool this morning although her bowels were moved twice in bed during the night; has been very thirsty yesterday and this morning, talks quite sensible but peevishly; has abnormal sensations *e. g.*, imagines her chemise is rolled up on her back and wants it pulled down; has some pain in the head, but appears to move it more easily than before; finished her medicine this morning. To have an ounce of port wine every two hours.

6 p.m.—Respirations 34; pulse 135; temperature 98.4; is quite conscious; knew her father who came in from the country; takes interest in passing conversations; was sponged all over; bowels moved once in bed after bath; taking only food and wine; slight external strabismus of right eye; forehead cold from profuse perspiration.

April 19th.—Respirations 33; pulse 135; temperature 100.2; has slept very quietly all night, and said nothing except ask for drinks; passed thin, yellowish stool in bed about 8 a.m.; pulse softer than it has been; perspires freely and face flushes red at times; is more correct in her appreciation of sensations than she has yet been, *e. g.*, as to how her clothes are arranged, and as to impressions made by other things in contact with her; has perfect use of her limbs; the pupils have always been widely dilated

except at the commencement of the attack, when the left was somewhat smaller than right. To have $\bar{5}$ j. wine every hour.

6 p.m.—Respirations 38; pulse 148; temperature 100.6; is quite conscious and able to speak perfectly; eyes somewhat suffused; conjunctivæ slightly reddish; on a level with the right lower lid there is evidently ulceration through the conjunctival layer of the cornea, and from this proceeds numerous enlarged capillaries; tongue slightly coated; complains of pain in middle of her back, and in her legs, when they are moved. To have the former Bromid mixture every four hours.

Sunday, 20th April, 1:30 p.m.—Respirations 46; pulse 160; temperature 100.8; condition of right cornea same as before; insides of both eyes are widely dilated and of a uniform light-yellowish colour, and apparently homogenous structure from the deposit of lymph; they are unaffected by light, and she cannot see; there is dulness of lower posterior part of right lung.

9 a.m.—Pulse about 170, dichrotous; respirations 46; temperature 102; answers questions intelligently; puts out tongue when asked, &c.; perspiring freely; cheeks with a purplish flush; eyes in same condition as last night. To have one ounce wine every half hour until next visit.

11:30 a.m.—Has just died; face not very pale; cornea clear; irides same as before; lower and back part of right lung dull on percussion; apex in front almost tympanitic.

POST-MORTEM EXAMINATION FORTY-EIGHT HOURS AFTER DEATH.

Owing to unavoidable circumstances a post-mortem examination of the body could not be obtained until Tuesday afternoon, when the friends of the deceased were beginning to assemble for the funeral, so that the examination was necessarily hurried. I am indebted to Dr. Roddick for making it with me. The brain and spinal cord as far down as the fifth dorsal vertebra were the only parts examined. The view of the *dura* and *pia mater* were, through the entire extent of these membranes, intensely congested with dark fluid blood. The arachnoid membrane seemed to be more opaque than normal, and small quantities of pellucid lymph coated the surface of the base of the brain, particularly in the region of the optic commissure, glueing the fissures and convolutions together and presenting an irregular or granular surface when these parts were torn asunder. The quantity of sub-arachnoid fluid did not seem to be much increased, or it must have escaped in removing the brain. The same conditions existed in

the parts of the spinal cord examined, and, in addition, the venous plexus separating the cord from its bony canal was found gorged with blood. Under the microscope small portions of cord presented capillaries containing single and double rows of blood globules, slightly overlapping one another; but I am ignorant if this be a pathological condition or not. The brain substance seemed to be even more than usually tough and sticky. The *puncta vasculosa* presented about the normal appearance. The choroid plexus was very vascular and prominent. In the left lateral ventricle there was about two drachms of fluid, but in the other ventricles the quantity was normal. No time was allowed for further investigation.

Judging from the post-mortem appearance of the meninges of the brain and spinal cord in this case, I think that the local abstraction of blood and frequent dry cupping of the back of the neck and spine would have been powerful adjuvants in its more successful treatment. In two cases which I have treated since I have found these remedies give great relief to the pain and other symptoms. Although Radcliffe, in his article on epidemic cerebro-spinal meningitis in Reynold's "System of Medicine," says that "it does not appear that any decided good has arisen" from the administration of iodide of potassium, it seems to me that it should prove useful, judging from its almost specific influence over periostitis, an inflammation of a structure very similar to the meninges of the brain, and from its influence in stimulating the removal of effused matters.

The other two cases to which I have referred and believe to be epidemic cerebro-spinal meningitis, have been under treatment for three and four weeks respectively. The pain, stiffness of the neck, and many other symptoms have disappeared wholly or in part, but there still remain a somewhat increased temperature, rate of pulse and respiration, and great weakness. I should like to hear an expression of opinion as to the treatment in this subsequent typhoid condition which, I understand, has been met with in cases treated by other gentlemen.

Since I met with the case reported above I have also had two patients suffering from vomiting, severe headache and pain in the back, with stiffness of the neck, severe pain in the bowels and side, and varying differences in the size of the pupils; but these symptoms passed away on the administration of mercury, bromide and iodide of potassium, with cupping of neck and back and the constant application of cold to these parts.

I BEAVER HALL TERRACE, April 16th, 1873.

Correspondence.

LONDON CORRESPONDENCE.

Since my last letter I have been much out of town and, therefore, had not an opportunity of taking medical and surgical notes of cases occurring in the hospitals. At Moorfield's things go on much as usual. I saw an interesting case under Mr. Jonathan Hutchinson, illustrating the results of the treatment of pannus from obstinate granular lids, by inoculation with gonorrhœal matter. This was done three years ago. The patient was a woman about thirty years of age. At the time, the left eye was the worst, the cornea was extremely vascular; the right eye was not nearly so bad. Mr. Hutchinson inoculated the left eye, but did not intend doing so to the right. However, through carelessness the woman managed herself to communicate the disease to the right eye. The case was progressing favourably when, unfortunately, the right eye became seriously worse, and a perforating ulcer of the cornea was the result. At the present time the left eye looks perfectly healthy, with the exception of slight cloudiness at the upper segment of the cornea; the lids are quite healthy and free from granulations. In some remarks made about the case, Mr. Hutchinson said that he should not have inoculated the right eye, nor did he intend at the time the case was under observation that such should have occurred. It was not safe to follow this treatment unless the cornea was very vascular and quite covered with vessels. He had performed the operation in some dozen cases, and with satisfactory results. This case had been sent to him by Mr. Hulke. Another case under Mr. Hutchinson was a deep wound of the eye from the blow of a stone. The patient was a child about seven years old, and the ciliary muscle and cornea were deeply divided. He recommended excision of the eye-ball as a protection to the sound eye which, he said, ran considerable danger from sympathetic inflammation, in which case the result would, in all probability, be total blindness in the sound eye, and, perhaps, a chance of perception of light in the injured eye. Excision seems to be generally practised in severe injuries of the eye-ball at this hospital, and the results are usually very satisfactory.

Mr. Streatfield told us a story this morning in re strabismus. A boy came to the hospital one morning bringing his sister to be operated on for squint. Mr. S. had operated on the boy for the same some time before, so he asked, "How did your sister get the

squint; did she catch it from you?" "Oh, no," said the boy, "she didn't catch it from me; she caught it at the barber's shop." "Why how on earth did she catch it at the barber's shop?" "Oh, we don't know, sir; we think it must have been a fright."

At University College Hospital there was an interesting post-mortem examination of what was termed fibroid phthisis. The lung was contracted and indurated, and although several large cavities existed they could not be detected during life. In addition, there was carcinomatous deposits in the liver, spleen, cesophagus, stomach and supra-renal capsules; and, also, peritonitis from perforation.

Under Mr. Critchett, at the Ophthalmic Hospital, Moorfields, a very interesting case came under our notice. It was a girl on whom Mr. Critchett had operated four years ago for pannus, performing periotomy as recommended by Dr. Furnari, of Paris, in 1866. The result was now, four years after the operation, all that could be desired. The granulations, on which the pannus had originally depended, had almost entirely disappeared, the removal of the effect thus seeming to have reacted on the cause. In another case under Mr. Critchett, one of congenital cataract with clear circumferential margins in both eyes, in a child, he made an artificial pupil in each eye, and stated that it was much the most successful mode of treatment. On the same occasion he performed several operations for squint, one of which was a very bad case, the cornea of one eye disappearing almost entirely in certain positions of the eye. Another case was that of a Portuguese sailor who had one eye removed by Mr. Lawson some years ago, and who presented himself with cataract in the other. Mr. Lawson remarked that he would be a good case for Mr. Plimssoll, M.P., who is just now agitating a good deal about our merchant seamen. Here was a man who had worked his way to England from Lisbon and back again several times, receiving no wages on account of his defective sight, on a vessel of 180 tons burthen, with a crew of ten men. He was obliged to take his turn at the helm at night, when he could not see the binnacle, and could only steer by the stars, when they were to be seen. Although he could not see the compass he could catch sight of a star now and then, and he said he used to make shift to steer in that way. This is either a tough sailor's yarn or else it fully illustrates the saying that "there is a sweet little cherub who sits up aloft and takes care of the fate of poor Jack."

I went round Charing Cross Hospital with Mr. Canton the other day, and saw some interesting cases. Mr. C. always performs excisions of the knee-joint with the H incision. He says that he

likes plenty of room, and that there is no danger in cutting skin and muscle, and that by adopting the H you see your way clearer and have more advantage for drainage afterwards. His cases do very well, I believe. Butcher, of Dublin, also prefers the H incision, but I think it matters very little, as with the semicircular sweep, such as you are in the habit of using at the Montreal General Hospital, if the angles of the incision are well back you get quite sufficient drainage and certainly abundance of room to see your way clearly.

LONDON, May 7th.—I take up my parable again after an intermission of nearly a week, in consequence of absence from the city. I am indebted to Dr. Osler for the notes of the following cases :

To day, at University College Hospital, Mr. Erichsen had a case of epithelioma of the tongue which he determined to remove by the galvanic ecraseur. For some reason the wire was not sufficiently heated, and the bleeding from one of the lingual arteries was so profuse before it was tied up that the man became asphyxiated from the blood getting into the larynx. It was very re-assuring to us young surgeons to witness the cool way in which Mr. Erichsen decided at once, and cut down on the larynx and opened it. Mr. Heath at once put his lips to the wound and sucked out all the blood he could, the assistants at the same time put in practice Sylvester's method of artificial respiration. After a little less than two minutes the patient was rescued from his perilous position, and respiration again re-established. Mr. Erichsen made some pertinent remarks on those whose business it was to see that the battery was in working order, and said that though in the past eighteen months they had had about a dozen cases, in no case except the present had a drop of blood been lost, and that it was too bad that a patient's life should be jeopardized through the carelessness or incapacity of subordinates.

Sir Henry Thompson performed lithotomy on a man about sixty years of age and very stout. In his second incision he entered the bladder, but owing to the perineum being uncommonly deep he had to trust to the forceps altogether, as he could not use his finger to assist in getting a firm hold of the stone; however, he rapidly extracted the calculus which was of considerable size. Mr. Heath amputated through the condyles of the femur (Stokes' operation) retaining the patella after removing with the saw its articular surface.

A boy aged six years was treated as an out-patient some time since for a slight attack of articular rheumatism, accompanied with a pericardial murmur which, however, was slight. In February he was admitted to hospital, suffering from bronchitis, pericardial

effusion, and ascites. About the 23rd of April he was tapped for the pericardial effusion. Mr. Heath performed the operation with the aspirator, removing about four ounces of clear fluid. This relieved him somewhat, though the line of dulness was not much diminished. At the end of a week he was again tapped, with greater relief, and he became much easier. During this time the ascites increased, necessitating the tapping of the belly, which relieved him considerably. The boy is now about holding his own, but Sir William Jenner has no hope of his ultimate recovery, as the cause of his ascites is not removed.

I visited the Exhibition of the Royal Academy at Burlington House, Piccadilly, yesterday, and amongst other paintings there was one by Sir Henry Thompson, the subject being "A Summer Evening on the Thames, near Henley." It is a clever picture and reflects much credit on the artist who had snatched time from his arduous professional duties to cultivate the fine arts. There were also three paintings by Sir Robert Collier, who occasionally devotes his vacations to sketching in Switzerland. I must confess, I was somewhat disappointed with the pictures; taking them altogether, that is, so far as the subjects went, as they appeared to me to be rather trivial in character. I hope to see you soon as it is my intention to sail for Canada on Saturday next the 10th instant.

Yours truly,

A. A. B.

Reviews and Notices of Books.

Illustrations of the Influence of the Mind upon the Body in Health and Disease; designed to Elucidate the Action of the Imagination.

By DANIEL HART TUKE, M.D., M.R.C.P.; joint author of "The Manual of Psychological Medicine," &c., &c. 8vo.; pp. 415. Philadelphia: Henry C. Lea. 1873.

The name of TUKE is familiar to all students of the disease insanity. The grandfather of the author laboured with Pinel and others interested in the study of this disease to modify if not entirely change the views entertained of its pathology and treatment. Through their teaching and influence the maniac was freed of his chains, and was restrained in his fitful wandering by gentleness and quiet persuasion. A new era dawned on the history of this disease, the maniac was no longer regarded as an outcast, who

had fallen from grace and suffered this special affliction at the hand of Almighty God for some unrepented sin, and had become possessed by the devil whose name is Legion, but was looked upon as suffering a brain-disturbance of some sort, which was amenable to treatment and in many instances curable.

The father of our author, a physician of note followed in the track and advocated warmly the views, advanced by those who preceded him, regarding insanity and its rational treatment, and was gratified by the establishment in England of an institution where the insane were treated like human beings, which was eminently successful in restoring many to health and usefulness. In fact nothing was more conducive to remove the prejudices and opinions of the day regarding insanity than the admission of its being a curable malady or at least a disease that in many instances admitted of reasonable hope of escape from life long affliction.

Dr. TUKE, the author of the work before us has already acquired distinction by publishing a work, in conjunction with Dr. Bucknill, on "psychological medicine." In the present volume the author explains in his preface that he was led to the consideration of the importance of the subject of the influence of the mind on the body from the occurrence of a somewhat remarkable case of apparent recovery from an attack of Inflammatory Rheumatism, resulting from a railway collision.

Some time after the author forwarded to the Journal of Mental Science a paper bearing the title of this work. He states "about 190 pages have appeared in that journal. The chapters already published have been much extended, and part IV treating of the influence of the mind upon disease, is, in common with several chapters, entirely new." The author gives the following reasons for publishing his observations and researches in book form.

"To collect together in one volume authentic illustrations of the influence of the mind on the body." These cases are found scattered through many medical works, and some that the author chronicles have never before appeared. In order that these cases may possess interest and value the author has arranged them "on a definite physiological basis." Again the object of the work is "to show the power and extent of this influence not only in health in causing disorders of sensation, motion and the organic functions, but also its importance as a practical remedy in disease." Another object embraced in this work is to "ascertain as far as possible the channels through, and the mode by which this influence is exerted," and to sum up this inquiry to seek "to

elucidate the nature and action of what is usually understood as the imagination." In every-day practice the physician is forced to ascribe the occurrence of many symptoms to the imagination, or again, the relief of other symptoms as due to the same cause; if, therefore, the imagination has so much to do in the production or removal of discomfort, or has any effect on disease actually existing, then indeed should the physician carefully study, and endeavour to unravel, the mysterious influence of the mind on the body and its functions. But inasmuch as we are not all constituted alike, not all equally imaginative or credulous, the effect of mind on the body as a curative agent must be limited in its operation.

The work is divided into four parts. In the first he discusses the influence of the intellect on sensation, on voluntary and involuntary muscles and on the organic functions. In part two we have considered in the same order the influence of emotions.

In part third the effect of the will on sensation, motion and organic functions, is elucidated, and in the fourth part the author takes up the subject of the influence of the mind upon the body in the cure of disease.

Throughout the work, the author has reduced his views and observations to something like systematic order. The volume abounds with curious facts, but no attempt is made to show why, or how the body is subservient to the mind. In the present state of our knowledge on this abstruse subject, we must rest contented with the phenomena as observed, without being able to account for them. The relationship between mind and matter is undetermined, nor is it at all likely that this point will ever be definitely settled.

In this latter part of the book the subject is considered in three chapters. The first is devoted to Psychological and Physiological principles. The next chapter is on the influence of mental states upon disorders of sensation, motion and the organic functions, and the third is devoted to Psycho Therapeutics, and the practical application of the influence of the mind on the body to medical practice.

The curative power of the imagination is illustrated by many remarkable cases. Many of these are curious and almost come within the term miraculous; probably those who believe them might be deemed credulous, were it not that they possess an authenticity which places them beyond cavil. This chapter is divided into six sections. In the first is considered the general influence of the physician upon the patient in exciting mental states which act beneficially on the body in disease.

In the second section is considered the importance of exercising or arousing the will.

In section three we have considered "systematic excitement of a definite expectation or hope, in regard to the beneficial action of totally inert substances."

In section four we have taken up and discussed the direction of the attention to some particular region of the body with a view of inducing the expectation of certain results without the administration of inert drugs. In the fifth section the combined influence of arousing certain mental states by lightly touching the affected part, and in the last section we have discussed the effect of exciting certain mental states as in mesmerism, &c. This chapter is one of the most interesting in the volume, and should be perused very generally; every practitioner will find in it food for reflection, as it is replete with practical suggestions bearing on the influence of the mind on the body.

Altogether this work is the most valuable collection of well authenticated facts which are suggestive of application by medical practitioners in the treatment of disease. We commend it to our readers.

Surgery.

ABSTRACT OF A CLINICAL LECTURE ON THE TREATMENT OF PSOAS AND OTHER LARGE ABSCESSSES.

Delivered at St. Thomas's Hospital, London, by JOHN SIMON, Esq., F.R.S.
Surgeon to the Hospital.

In reference to several cases of large chronic abscesses under his care, Mr. Simon remarked, that the only real difference between psoas and most other abscesses due to diseased bone was, that its cause was deep within the body. If the diseased bone could be removed, the abscess would heal; but the bodies of the vertebræ were out of reach: the surgeon could only mitigate the symptoms, and leave the rest to nature. If the disease were only caries, a cure might result, with more or less angular curvature of the spine; but if necrosis were present there was no chance of a cure, the dead bone was not absorbed, its presence kept up a constant purulent discharge, and this led to anæmia, to albuminoid disease of the liver and kidneys, and finally to death from hectic and exhaustion.

In all these cases of chronic suppuration the amount of consti-

tutional and visceral damage is closely proportioned to the amount of the discharge: the amount of the discharge is proportionate to the extent of the abscess-cavity, and this depends, to a great extent, on the time it is suffered to extend. The great point in the treatment of these cases is, as far as possible, to prevent the formation of a large pus-secreting cavity. If, therefore, there be any suspicion of the existence of deep suppuration, keep a sharp look-out, and open the abscess as soon as you can detect fluctuation, unless the proximity of large vessels, or of other important structures, affords strong reasons for delay.

In situations where the progress of the disease can be watched, as, for example, in abscess of the knee-joint, the difference in the result, according to whether you let out the matter early or not, is very great. If the pus be soon evacuated, there is a fair chance of saving the limb, and even of regaining some motion in the joint; but if the incision be postponed, the joint soon becomes utterly disorganized, burrowing sinuses form, and the neighbouring soft parts become deteriorated by infiltration.

There is, however, this serious difficulty in opening a psoas abscess. Perhaps it forms a large bulging tumour in the groin, yet the patient is fairly well; you cut into it, he at once becomes feverish, and in a fortnight is *in extremis*; then an ignorant person may reproach you with killing the patient. But, however well and strong the patient may appear, it is certain that this febrile condition will supervene sooner or later. It is inevitable. The longer it is postponed the worse it will be, since the cavity of the abscess will be larger. Be careful, then, always to explain to the friends of the patient that the operation is a serious one, but that the consequence will be more serious the longer it is delayed. The severity of the consequent fever may, however, be greatly mitigated by treatment. Ten days ago I opened a large dorsal abscess in a little girl now under my care. I made a free incision, a very large quantity of thick pus escaped, and air was not excluded, yet the child has hitherto had no fever, and appears quite comfortable. All this time the cavity of the abscess is shrinking; and if the fever should now appear, it would have been far less severe than it would have been had it occurred immediately after the operation. I owe this satisfactory state of things to the local application of cold; directly the pus was evacuated an ice-bag was applied, and has been continued since. I have succeeded equally well in a large number of similar cases, and I can confidently recommend ice as an incomparable antiphlogistic.

Of course, if necrosed bone be present, the abscess will not

entirely close; a mere sinus will, however, be left, which will not drain the patient to any considerable extent.

As I have said, I do not take extreme precautions to exclude air. At present I am inclined to reserve my judgment as to the value of the carbolic acid treatment, or at least as to the theory on which it is based; it is not yet proved that bacteria are the cause of unhealthy inflammation; and emptying an abscess by aspiration does not prevent the inflammatory process in its cavity. Recent experiments do, however, show that bacteria pass very readily in water, and attached to moist things; and common experience teaches us that infection is much more likely to be carried by sponges and surgical instruments than by mere air. From my own experience, I do not think that air, if only ordinarily pure and dry, is such a poison to surgical wounds as some assert; but, whatever your theory may be, always carefully disinfect all surgical instruments, etc., with boiling water.

Finally, I must qualify my advice with a caution: remember that fluctuation is not always due to pus. Open early all acute or chronic abscesses, but never cut into collections of blood or synovia. A bruise, in ill-conditioned subjects, may be followed by extensive extravasation of blood, causing a fluctuating tumour, which, if deep in the limb, might easily be mistaken for an abscess. If these extravasations be let alone, and treated with cold applications, they disappear, though they may take a long time about it; but an incision into one is generally followed by grave constitutional symptoms. If well-marked signs of inflammation appear you must treat the swelling as an abscess; otherwise never open one.

When you are dealing with chronic suppuration always look out for the chronic cause. The tendency of inflammation is to subside, unless there be a stimulus of some sort present. A man was admitted here some time ago with a deep wound in the gluteal region, caused by falling on a spike; the wound did not heal, and after some weeks, on careful examination, a piece of his trouser was detected at the bottom. So, again, there is a boy with disease of the knee-joint, in my ward, who leg has been saved entirely by attention to position. By extension of the limb, and pushing back the femur, we have greatly reduced the inflammation; and whereas the child was before rapidly becoming worse, he is now as rapidly mending. Always treat such displacements in young subjects early and carefully; mere dislocation of the parts will keep up irritation and suppuration, without the presence of any dead bone.—*British Medical Journal.*

FRACTURE OF THE VERTEBRAL COLUMN—REDUCTION OF THE DISPLACED FRAGMENTS—RECOVERY.

The *Bulletin Médical du Nord de la France* records a case of fracture of the vertebral column, in which the displaced fragments—corresponding to the twelfth dorsal and first lumbar vertebræ—were reduced in the following manner :—The injured man was laid upon his face; four assistants made extension by drawing down the inferior extremities, and two others held the body by the armpits. Three tractions were necessary, during which the surgeon (M. Parise), employed himself in reducing the fragments, at first by pressure with his fingers, then with the palms of his hands, and, finally, with his knee, leaning with almost the entire weight of his body. The complete paralysis of motion and sensibility of the lower limbs entirely and at once disappeared, and the power of micturition and defecation were restored in a few days. The patient was kept on his back in bed, in a state of absolute immobility, and, at the end of sixty-three days, he was able to get up and walk about the Ward.—*La Tribune Médicale*.

STONE IN THE FEMALE BLADDER; REMOVAL BY DILATATION; RECOVERY.

(Under the care of Mr. COWELL.)

On the 11th ult., Mr. Cowell removed by dilatation a stone from the bladder of a woman sixty years of age. The dilator used was a small one with three blades. The case was one of some interest. The patient had, upwards of two years ago, been in the hospital for some two or three months under the care of Dr. Basham with pyelitis. A few months later she had attended the hospital after passing gravel, accompanied by great pain, and some bleeding after micturition. About twelve months ago she returned to the hospital bringing with her a small piece of bone which she stated had been passed from the bladder. On examination, this proved to be, not human bone, but bone belonging to some animal of the bovine species. There was then considerable doubt as to its having come from the bladder; but three months later she brought two other small pieces of bone, both of which were to some slight degree coated with calcareous deposit. This seemed to set at rest the previous doubt, but it was also certain that this bone must have been introduced into the bladder. The patient had passed no more fragments of bone since, but had returned to the hospital in consequence of continued pain in the back and frequent desire to void urine, an act always followed by severe

pain at the neck of the bladder. The pain was much increased if the patient moved about. The urine was loaded with pus and albumen. Mr Cowell had examined the bladder at Dr. Basham's request, and detected the presence of a stone of moderate size, and, in consequence of the kidney disease, recommended its removal by dilatation other than lithotripsy. The stone was removed readily after moderate dilatation, but its outer layers broke down under the pressure of the forceps, and were brought away in pieces after the extraction of the nucleus, and the bladder was carefully washed out with warm water. The stone was exceedingly friable, of chalky aspect, and composed of successive layers of harder and softer material, the former flaking off easily and in large pieces.

A subsequent examination of the stone showed it to consist almost entirely of phosphate of lime, with a very small amount of uric acid in the harder portions, and the slightest possible trace of ammonio-phosphate of magnesia. No bone was found in the centre of the nucleus, as was suspected might possibly have been the case. The stone weighed 128 grains.

The patient has since done well. There was no incontinence of urine until the fifth day, when the urine escaped involuntarily for about four or five hours. There has been no incontinence since, and the patient has been free from pain. The urine, examined six days after the operation, was of a light-straw colour, of acid reaction, and afforded a light-coloured deposit. It contained some pus, and about one-fourth albumen. Treated by acetic acid, no mucus was found, but the microscope showed a large number of pus-cells and a few blood-corpuscles, but not a single epithelial cell, with the exception of one doubtful renal cell. There were no casts.—*Lancet*.

EXTRACTION OF CATARACT BY GRAEFE'S MODIFIED LINEAR SECTION.

Dr. David Little points out some of the dangers attending Graefe's method, and alludes to the operation proposed by Liebreich (*British Medical Journal*, December 2nd, 1871) for obviating them. He expresses the opinion that the results obtained by Liebreich's operation "are superior to Graefe's, as regards immunity from the worst inflammatory consequences. In performing this operation myself, I have been much pleased with the rapidity and ease with which it can be accomplished, and the comparatively little pain it gives the patient; at the same time, the great tendency to prolapse of the iris and its ultimate adhesion to more or

less of the corneal wound, besides, the production, probably, of a greater amount of astigmatism than by any other operation, appear to me to be serious objections to it. My experience, however, as yet, is too limited to enable me to speak authoritatively on this point." Dr. Little notices some interesting facts in reference to the cases which form his report: "The 200 operations occurred in 148 individuals, of whom 78 were males and 70 were females; their ages varied from 32 up to 81 years; 115 of the eyes belonged to patients who were sixty years of age and upwards, and it is interesting to observe here, what effect age had upon the result of extraction of these 115 eyes. Eighteen were attacked with iritis (nine of which ended in a closed pupil); two were lost from panophthalmitis, two from irido-choroiditis, and one from sloughing of the cornea. . . . In fifty-six of the extractions the patients are noted as being marastic, delicate, rheumatic, or as being in bad health.* Of these cases, ten were followed by iritis, five of which terminated in a closed pupil, and five were lost." Here also the state of health is some criterion as regards the prognosis." "In twelve instances both eyes were operated upon at one sitting." As regards the use of an anæsthetic, "chloroform was administered in four cases only. I prefer operating without it if possible, if only for this advantage—that one can more readily and effectually clear the pupil of cortical remnants when the patient is anxious to direct the eye as required." Dr. Little gives the results of his cases, as regards vision, in a tabular form, and says, that—"If we consider those cases that can read from No. 1 to No. 14 (Jaeger) as perfect results, those from No. 16 down to good perception of light as imperfect, and all those the sight of which is destroyed as failures, then we shall have the result of my 200 extractions as follows: 3·5 per cent. of loss; 7·5 per cent. imperfect; 89 per cent. perfect."—*British and Foreign Med. Chir. Review*, Jan., 1873.

TREATMENT OF CHRONIC DISEASES OF THE BLADDER WITH INJECTIONS OF HEALTHY URINE.

In No. 8 of the *Pester Med.-Chir. Presse*, for this year, Dr. T. Clemens proposes for the treatment of old disorders of the bladder (such as catarrh, chronic inflammation produced by the unhealthy urine, gravel, &c.) a means which had already suggested itself to his mind four years previously, and which he had since employed with success. His first case was that of a patient whose bladder con-

* One patient was suffering from diabetes for four years' duration; the extraction was completely successful.

tained abnormal urine in a state of putrefaction; after having failed the use of all known remedies, he made injections with fresh and healthy urine, and with the very best results. The author advises to empty the bladder completely, and to wash it out by means of an injection of tepid water, which is allowed to run out after five minutes; a young and well-fed individual is then made to micturate directly and slowly into the syringe, which is previously warmed to 25° (Reaumur). The injected urine is allowed to stay some time in the bladder. The injections must be repeated two or three times in the day. Sometimes an immediate effect is observed, as happened in a case quoted by the author, in which spasm of the bladder disappeared after the first injection.—*Lancet*.

PROGRESS OF THE CASE OF LOUIS ST. AUBIN.*

A Paris Correspondent writes *inter alia* as follows:—

It might interest your readers to have the last news of St. Aubin, one of the wounded of Sedan, whose case is given at length by Dr. MacCormack, at p. 107 of his "Notes and Recollections of an Ambulance Surgeon." Dr. Gaede, of Bourbon, Lancy (at the Hospital of which place St. Aubin is at present), writes a long account of the patient's present state, too long to give *in extenso*, but the following is the substance of it. St. Aubin's whole arm is quite useless; no motion whatever, either in elbow or shoulder; the hand is undergoing a process of atrophy, the thumb is the only part not positively motionless; the upper fistulous openings discharge freely; and Dr. Gaede, after a free incision, found it necessary to extract a whole piece of the humerus, seven centimetres long, representing the whole thickness of the humerus. Since then Dr. G. has discovered, in the remaining part of the humerus, a longitudinal fracture, with a splinter shaped fragment, much longer than the above, of which he resected some three centimetres. Sloughing is so abundant and persistent, and so many abscesses have continually formed, that St. Aubin has often begged to be relieved of the useless arm. He has never been able to write with his hand since his wound, but has learnt lately to write with the left, and the long and continuous suffering, as well as the sloughing, have proved a great drain on the man's constitution, which is all but exhausted. Dr. Gaede has been prompted to publish this report (he promises a further one) in the interests of

In this case, the shoulder and elbow-joints were both excised on the 14th ptember, 1870, in consequence of severe injuries to the right arm from an lodging shell.—Ed. I.H.G.

correct surgical statistics. St. Aubin's case having been given as a brilliant example of success, and having obtained a great notoriety owing to Mr. MacCormack's book having been translated into French, and, perhaps, German, it is perhaps well to prevent the whole mass of surgical students in the three countries from being misled by too hasty an estimate of results.—*Irish Hospital Gazette.*

CLINICAL LECTURE ON BED-SORES.

By SIR JAMES PAGET, F.R.S., &c., Lecturer on Clinical Surgery at St. Bartholomew's Hospital.

Bed-sores may be defined as the sloughing and mortification or death of a part produced by pressure. When we press on any part of our bodies for a moment, on the removal of the pressure the part is quite white, owing to the blood having been pressed out. The colour immediately returns, however. In bed-sores, the pressure is continual, the blood is driven away, nourishment ceases, and death of the part takes place. There are three different forerunners of bed-sores, (1) inflammation; the prominent parts, *e.g.*, the sacrum, posterior superior spine of the ilium, the trochanters, and the ends of the spines of the vertebræ, are seen to be red. (2) They may be simply pale and white. (3) They may be purple or yellow from the extravasation of blood or bloody fluid. Sloughing follows these in the skin and subcutaneous tissue and fat. These latter die before the skin, sloughing proceeds faster in them, and so when the skin comes away, the place formerly occupied by these tissues is empty. Then the deeper parts die—muscles, bone, until sometimes the spinal cord itself is exposed. Now bed-sores occur in those who are absolutely at rest. If there is the slightest movement from one side to the other bed-sores may be averted. A man with simple fracture of the femur, previously healthy, can move himself slightly from side to side, and does so instinctively. No man with simple fracture of femur ought to rise from his bed with a bed-sore. It would be the consequence of gross neglect if he did. In the case of those whose lower limbs are paralysed, there can be no motion whatever, and so they are liable to bed-sores.

The time when bed-sores begin to make their appearance is about fourteen days—that is, in the case of a healthy man who is absolutely unmoved. They will, of course, be accelerated by dirt, if his urine and fæces are not constantly removed. There are certain cases which are specially favourable for bed-sores:—the old, especially those with fractured neck of femur, and those that are the fattest and heaviest, and most likely to become œdematous.

Among ordinary persons, those that are the thinnest. When, as is commonly said, their bones are ready to start through their skin; the amount of tissues between the skin and projecting point of bone is so small that it soon, as it were, wears away, and bed-sores ensue. Those again in a state of fever, such as the lowest kinds of typhus, can scarcely by any means be saved from them. Their whole system is so poor and degenerated that sloughing takes place without any pressure at all; and you may see the ends of the nose, ears, &c., sloughing from the bad supply of blood. Continuous hectic fever is a state in which they appear, being an exception to the general class of consumptive patients, who, though they may lie in bed for months, rarely have bed-sores. They manage to move slightly and thus avert them. Pyæmia is another source, and is illustrated by a case in the Hospital: a man who was admitted with phlegmonous erysipelas of a limb and was treated for it. On account of some misconduct he was discharged: after a while he came back with pyæmia and an enormous bed-sore. His skin is very pallid and soft and does not properly discharge its functions, and there is every reason to believe that every other organ of his body is in a similar state. His lungs may be auscultated and his urine examined, and nothing at all found wrong with them, and yet I venture to state that neither the lungs or kidneys are performing their functions as they ought. A pyæmic subject, being so ill-nourished, is especially liable to bed-sores. Intense fever is also a productive agent. The man, whose thigh was amputated a short time since, had a most acute and intense attack of fever, and large bed-sores appeared. Now the fever is gone, the local disease is removed, and the bed-sores are healing very rapidly. The risk of bed-sores in the old with fractured neck of femur is chiefly in the first week, therefore treatment with a view to preventing them should commence immediately the patient takes to bed. After the first week the risk is not nearly so great. There is one peculiar class in which bed-sores rapidly appear, and that is rapid destruction with inflammation of spinal marrow. If in a fracture of the spine, a portion of the spinal cord, below the seat of fracture be irritated and inflamed, sloughing will ensue in those parts to which the nerves given off below the irritated part proceed. And this will take place in two or three days. Sir B. Brodie mentions a case in which a large slough formed on the heel in twenty-four hours. No doubt there were other causes for this. Two or three days is the usual time. The same takes place in diseases of the spinal cord, especially in acute pyelitis. There is not so much risk of sloughing in parts deprived of nerve force as in parts whose nerve force is irritated and disturbed.

Now let us look at the means of preventing bed-sores, for nine-tenths of your care must be devoted to this; for if once they appear it is very difficult to get rid of them.

First of all, look to the bed. Good bed-making is an indispensable thing in the prevention of bed-sores. Several beds have been made especially for this purpose, of which the best is Dr. Arnott's. It consists of a chest full of water; on the top of this is a waterproof sheet, and over this an ordinary sheet on which the patient is laid. Here the patient is absolutely floating on water. The waterproof sheet is not drawn tight but adapts itself to every part of the patient. A patient might lie on this for years and never have a bed-sore. Inferior to this, but very good, is Hooper's bed. Here the waterproof on the bed is tight. They will avert bed-sores for a long time, but I should not like to say that a patient would never get a bed-sore on them. But you cannot have these everywhere; you can't take them about to everyone who may need them, and there are many cases in which they cannot be used at all, as in cases of fractured neck of femure, acute inflammation of knee-joint, and many others.

In ordinary beds the best thing is an ordinary firm mattress of horse-hair; and it must rest on boards. Cords are the worst possible things as after 24 hours or so they give under the weight of the patient, and the most prominent parts are pressed upon. Iron gives after two or three weeks. Not so boards. It must be quite level. Under the horse-hair it is better if possible to have a spring or straw-mattress. Feather-beds and the like are, of course, to be utterly condemned. If possible, have two beds, so that you may lift the patient into the other when it wants making. You thus avoid making beds under him.

The next thing is to harden the skin. The best application for this is a solution of one part of nitrous ether in three of water. If the back is frequently washed with this, bed-sores may be completely averted. There is in the Hospital a man paralysed in his lower limbs; he has been in this state for ten months. By the good nursing of the sister of his ward bed-sores have been kept away. This application of nitrous ether has been used: solution of one grain of perchloride of mercury, with two drachms of nitrous ether, and six ounces of water, is another good thing. Whiskey is used in Scotland, as is brandy sometimes in England, but these are not so good. In Germany they use a solution of tannic acid. When the parts look as if they were going to slough, these spirit applications may be too strong, and then a solution of gutta percha in chloroform is very useful. Next we have to prevent pressure on those parts where bed-sores are likely to occur.

These are the middle line of the sacrum, after that, in thin persons, the posterior superior spines of the ilium, and the sacro-iliac articulations, then the trochanters of the femur. The chief thing is a frequent change of posture. If a patient can lie in four different positions during the day bed-sores may be prevented. He may lie on his back, each side, and on his face. Of course, you couldn't make a stout person lie on his face; he would simply suffocate. This change prevents the gravitation of the blood. This may easily be seen by looking at the back of a subject in the post mortem room. The back is quite red from this cause.

When patients lie on their backs they may be saved for a time by dividing a mattress and leaving a space of six inches between the halves. You may thus save the sacrum, which will have no pressure on it. The case before referred to was treated so, but sores came on the ilium and trochanters.

Large cushions made of amadou in the shape of a horse-shoe are very good. Isinglass plaster or felt water-pillows. Pads of cotton-wool may also be used with advantage. In speaking of the mode of curing bed-sores, already formed, let me remind you to continue your preventive treatment just as if there were none lest they come in other parts.

During the sloughing there is nothing better than a poultice of equal parts of linseed and bread and enough charcoal to have a deodorizing effect. Carrot and turnip poultices are also deodorizing but they are not so good as the first. The poultice is best spread on ordinary tow. When spread on linen &c., folds are liable to form, and if the patient is on these they promote the bed-sore. When slough begins to separate the resin or other stimulating ointment should be spread on the surface of the poultice.

When the slough has separated the sore should be dressed with resin ointment or Peruvian balsam, or equal parts of these in the following manner: little bits of cotton wool should be slightly spread with the ointment, and put into the sore until it is quite full. They thus make an equable soft surface for the sore. These are the chief local means for curing bed-sores. As regards internal treatment, don't stimulate. Let the diet be gentle but good; plenty of milk and bread; little or no meat, and a small quantity of wine.—*The Students' Journal*.

A CASE OF LITHOTOMY, WITH UNUSUALLY RAPID RECOVERY.

(Under the care of Mr. BARWELL.)

Boys under nine years of age recover from the operation of lithotomy more rapidly, as a rule, than older persons, and

children under five generally get well very quickly; beyond twelve years of age, however, convalescence is longer; but the following case is exceptional.

Hubert F—, aged thirteen years and a half, came under the care of Mr. Barwell, with symptoms of stone in the bladder, on July 19th, 1872. On sounding, a calculus, although a small one, was detected without difficulty; but, owing to circumstances unconnected with the case, the operation was postponed until July 27th. The usual lateral operation was rapidly performed, and, as the stone was known to be of small size, only a small opening was made through the prostate. When the finger was introduced, the stone was felt lying at the back of the bladder, and was readily seized and removed with the forceps. No tube was introduced, but the legs were tied together and the boy put to bed.

July 29th.—No bad symptoms have set in. This morning the boy passed all the urine by the urethra.

31st.—Only a little urine comes by the wound when micturition takes place.

Aug. 3rd.—The wound has quite healed.

5th.—Allowed to get up.

10th.—Discharged well. The wound was healed and the lad was practically well exactly a week after the operation. He was discharged on the day fortnight after, although, owing to certain regulations concerning board days, he remained in the ward until the 13th.—*Lancet*.

CASE OF EMPYEMA LIMITED BY ADHESION; IMPERFECT RELIEF BY NATURAL OPENING; PERSISTENT TEMPERATURE; FREE COUNTER-OPENING; RELIEF.

(Under the care of Dr. RUSSELL.)

This case presents an interesting example of encysted empyema after a severe attack of acute pleurisy. Although a natural opening had established itself in communication with the base of the cavity, and considerable diminution in the size of the cavity must have taken place, yet the communication was too indirect and too limited in extent to empty the cavity completely. A counter-opening, by admitting air, at once allowed the pus to escape, and, as will be seen in the history, the chest rapidly contracted and the discharge ceased. The entire upper lobe was protected by adhesions, and thus free respiration went on within it: it was curious to note clear respiratory sounds over so large a region of

the chest whilst air was audibly admitted within its cavity through the artificial opening at each inspiration. The circumstance which occasioned delay in making the counter-opening afforded opportunity of observing persistent fever temperature, with quickened pulse, kept up for 106 days apparently by the mere presence of pus within the chest, without any morbid action elsewhere; for not only was there absence of any evidence of active disease, but four days after the puncture the temperature fell to normal and the appetite increased greatly.

The patient was a man of perfectly healthy constitution and very temperate habits, aged thirty-five. He was taken with symptoms of acute pleurisy in the left side sixteen weeks before admission. The fever was high and the pain severe, and he kept his bed for seven or eight weeks. On leaving his bed he was very weak, and soon after an abscess began to form beneath the left mamma. It was opened three or four weeks before admission, and a large quantity of pus was evacuated. He had some cough, but no important expectoration.

When admitted, at the end of the sixteenth week, the patient was pale, and had lost flesh considerably, but he took food well, and complained of no ailment excepting a troublesome cough with scanty mucous expectoration. His urine was free from albumen. A small opening existed in the front of the left side of the chest, between the fifth and sixth ribs, just outside the mamma, which directly communicated with the interior of the chest; a variable quantity of pus, often scanty, at times considerable in amount issued from it.

Examination revealed the physical signs of the presence of fluid over the entire posterior region of the left chest; but the entire anterior region and the anterior half of the lateral region were perfectly resonant on percussion, and loud and pure respiratory sounds were audible throughout. On the right side all the physical sounds were those of health.

The diagnosis was at once made of pus within the chest, limited by firm adhesions to the posterior region, the entire upper lobe at the least being protected by adhesions and freely engaging in respiration.

On consultation with his colleagues, Dr. Russell judged it prudent to defer counter-opening, and three months elapsed before the performance of the operation. During this period the patient's health did not suffer more than it had done before his admission, the condition of the chest being unaltered—discharge still proceeding from the opening, and the circumference of the left chest having undergone little if any diminution.

Mr. Bartleet now introduced the aspirator needle behind, within the line of the angles of the ribs, between the eighth and ninth rib, and drew off twenty-six ounces of healthy pus, eight ounces having been previously removed by a syphon tube introduced through the opening in front. The last draw of the aspirator occasioned considerable pain, and the discharge was freely mingled with blood. The puncture by the needle was then enlarged into a free counter-opening, and Mr. Bartleet passed a drainage tube freely perforated at the side from the opening in front through that behind.

During the 106 days which preceded the making of the counter-opening, the temperature, pulse, and respiration had been regularly noted by the clinical assistant, Mr. G. V. Blake. The temperature was persistently above the normal standard. For the first forty-five days the evening temperature was twelve times between 102° and 102.5° , and although subsequently the temperature in the evening ranged between 100° and 101° , it only three times fell within the normal range, and was above 101° within four days of the opening. The morning remissions in the majority of days (sixty-three) were within the standard of health. The pulse retained relation to the temperature, but the breathing, though occasionally quickened, ordinarily ranged from 18 to 22. Four days after the opening was made, the temperature fell permanently and completely to the natural standard, and the appetite, not previously bad, underwent such an increase as to surprise the patient. The chest contracted, the ribs became somewhat flattened at their angles, and a slight double curve appeared in the vertebral column.

The counter-opening was made on September 26th, and the drainage-tube was removed on October 30th. The patient is now quite well, with a fresh complexion. The left side of the chest has lost an inch and a half in girth; the left shoulder is depressed one inch, and there is a slight double curve in the spinal column. This of course implies that a large amount of healthy lung exists, as is indeed the case. The sounds of respiration are clear, though rather more feeble than natural, over the entire anterior region of the left chest. It is noteworthy that they have somewhat declined in distinctness since opening, owing probably to the contraction of the chest-wall. Posteriorly the dulness is decidedly lessened and distant; respiratory sound is audible; vocal fremitus has been nearly restored. Physical signs on the right side are still quite normal.—*Lancet*.

Medicine.

DEATH OF A CHILD CAUSED BY INTRODUCTION OF CHYME INTO THE AIR-PASSAGES.

This very interesting case was communicated by Dr. Parrot at the last sitting of the Société de Biologie, and is the second of the kind that he has already observed. The child was aged one year, and after being fed by the bottle, was put to bed at six o'clock and died at midnight, with all the signs of intense dyspnoea. At the post-mortem examination (ten hours after death) the two lower lobes of the lungs were found quite softened, greyish, having a smell of butter, and, in a word, having undergone the action of gastric juice. Altered milk was found in the trachea and bronchi. In this case, the milk contained in the stomach, and which doubtless had been taken in excess, was vomited, and, on account of the horizontal posture, had penetrated into the air-passages. Dr. Parrot drew the attention of his colleagues to the importance of the fact from a medico-legal point of view. He thinks that this occurrence must be rather frequent, as he has already witnessed two cases in his own sphere of observation.—*Lancet*.

Midwifery.

A CASE OF URGENT AND PROLONGED DYSPPNŒA COMING ON SUDDENLY AFTER LABOUR.

By J. J. PHILLIPS, M.D., London; Assistant Obstetric Physician to Guy's Hospital; Assistant Physician to the Hospital for Sick Children.

On the 30th December, I was requested to see Mrs.—, aged 36, the wife of a medical man. She had been delivered of her fifth child at two o'clock in the afternoon. The labour was in every respect natural. Nothing untoward was noticed until six o'clock, when she suddenly complained of oppression at the chest, and began to gasp for breath. Her condition soon became most alarming. I saw her in consultation with two or three medical men at nine o'clock. She was sitting up in bed, supported by pillows, and in her husband's arms. The dyspnoea was most urgent;

the respirations were forty-eight per minute ; the pulse, which was said to have been for some time imperceptible, could now be felt beating at the wrist at the rate of one hundred and forty per minute, very small ; the respiratory murmur could be heard over the chest in front and behind ; there was no abnormal sound accompanying the heart's action, but the first sound was muffled ; the legs and the forearms were quite cold ; the lips were livid ; the face was pallid. She endeavoured on one or two occasions to speak, but could only articulate one word at a time. The history of the case and the symptoms seemed to point unmistakably to a coagulum in the pulmonary artery ; and it seemed to us that the treatment should be directed to support the heart's action as much as possible, and this was done by repeated doses of brandy, which with some difficulty were swallowed in soda-water. Five-grain doses, increased to ten grains, of carbonate of ammonia were given at short intervals, and warmth was applied to the extremities. I remained about an hour. The case seemed hopeless. At nine o'clock next morning, however, I found her much relieved. She was able to assume more nearly the horizontal posture ; the extremities were warm ; the breathing was much more easy, and only thirty per minute ; the pulse still very small, 120 per minute ; temperature in the axilla, 97 deg. Fahr. Symptoms of improvement had commenced about four in the morning. Her husband and another medical man, who sat up during the night, believing that the carbonate of ammonia was doing good, had continued its use in increased doses, so that in twelve hours she had taken two hundred and ten grains of it. The stomach tolerated this large quantity in a remarkable manner. "She was a little sick two or three times." The brandy had also been continued, and she had taken a little beef-tea in the early morning. In the evening, she was in much the same condition as in the morning ; frequency of pulse and respiration the same ; temperature only half a degree higher (97.5 deg. Fahr.) She still complained of pain in her chest. During the night some hours of sleep were obtained, and next day she was more comfortable in every respect. The respirations had fallen to from twenty to twenty-five per minute ; temperature, 99 deg. Fahr. ; no abnormal cardiac sound. The strictest rest was maintained. On the sixth day there were some pyrexial symptoms ; and on the seventh she began to suffer from severe sickness. The valuable advice of Dr. Herbert Davies was obtained, and she improved. I saw her again on the twentieth day after labour ; she was still keeping quiet in bed ; and the interruption to convalescence, for which I was desired to see her, was only of a temporary character.

Although I have not headed the above case as one of pulmonary embolism, the history which it presents, and especially the severe symptoms which persisted for so long a time, so closely resemble those observed in fatal cases of obstruction of the pulmonary artery; that it is difficult to explain the case upon any other hypothesis. It is true that in the great majority of cases of the kind the symptoms have rapidly increased in severity, and death has been the inevitable result; but a few cases during the puerperal state are to be found recorded similar to the present case, in which, notwithstanding the threatening character of the symptoms, gradual improvement took place. In analysing the case just reported, it appears probable that a loose clot which had formed in the right side of the heart was driven into the pulmonary artery, giving rise to the urgent dyspnoea which supervened so suddenly. The patient told me that throughout the day she had felt a little shortness of breath. Given that a clot found its way into the pulmonary artery, it is of course quite conjectural what changes took place in it; but it is not improbable that a loose clot might undergo such contraction as to allow the gradual re-establishment of the circulation, coincident with the slow improvement in the general symptoms. Different opinions will doubtless be entertained as to the share which the carbonate of ammonia had in relieving the symptoms, by reducing the hyperinosis of the blood which existed at the time. The large quantity of this alkali which was taken in twelve hours is especially deserving of notice. I am not aware that it has been given continuously for twelve hours in such large doses at such short intervals. Dr. Richardson, in one of his valuable contributions to the subject of thrombosis, gives reasons for administering the liquid ammonia rather than the carbonate; but when this case occurred I had not read Dr. Richardson's remarks on this point. Another fact of interest in the case now reported, is the low temperature which continued throughout the day succeeding the most severe symptoms.

My friend Dr. Playfair, who has written so well on thrombosis and embolism in the puerperal state, in commenting upon a case similar to mine, objects to its being called one of embolism, and says that it should be designated a case of thrombosis. I have, however, preferred to speak of this case as one of embolism, believing that the coagulum was originally formed in the right side of the heart, and then pursued its short course as an embolism into the pulmonary artery, rather than that coagulation occurred *in situ* in the pulmonary artery itself.—*British Medical Journal*.

LIABILITY TO MALPRESENTATION OF THE FŒTUS DURING LABOUR.

By P. J. MOLONY, B.A., M.B., Waterbeach, Cambridge.

The following cases open up a wide field for inquiry. During the summer of 1872, I was asked by Mrs. M. to attend her in her confinement, which she expected in a few months. She told me that she had already had eight children, all at full time, and that four of the eight had been either breech or footling-presentations—two of each, she thought. About the time she had mentioned I was sent for, and, on making an examination, I found the os half dilated and a breech presenting. All went well, and in half an hour she was deliverèd of a large male child. On thinking over this case, I remembered that, when a student, I had been sent out from the Maternity Hospital, in which I was taking out my practical midwifery, to attend a woman who, I found on my arrival at her house, had had a breech-presentation in her previous confinement. She was confined soon after my arrival, and, as before, had a breech presentation.

The object of these observations is to induce others to contribute to the solution of the question, Is a woman who has had a breech or footling-presentation at one labour more liable to the same at her subsequent labours than any other woman of the community? It will be seen that I leave shoulder and all cross-presentations out of the question, as they have been more closely investigated, and definite though not similar causes have been assigned for them, as form of the pelvis, obliquity of the spinal column, irregular action of the abdominal muscles and position of the placenta, etc. We confine ourselves to the reversing of the ovid. Churchill gives the number of breech cases in 197,318 deliveries, as 3,325, or one in $59\frac{1}{2}$; and the number of footling or knee-presentations in 192,174 deliveries, as 1,831, or one in about 105; so that there must be something more than chance in one woman having three breech, and two footling-presentations in nine deliveries, and another having two successive breech-presentations. Statisticians have given us the percentage of every sort of presentation. Most obstetric writers tell us of the forceps having been used, or the perforator several times with, or the Cæsarean section even having been performed, more than once in the same woman; but none, so far as I am aware, have mentioned the fact of a woman having had an abnormal presentation of the foetus in more than one labour. If those of our brethern who have a large obstetric practice will give us the benefit of their experience, we shall soon know whether to answer the above question in the negative or in the affirmative.—*British Med. Jo rnal.*

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1873.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO AND ITS DIPLOMA.

In the last number of this journal we reiterated the statement that some of the candidates who had passed the examinations of the College of Physicians and Surgeons of Ontario, and whose names appear as licentiates in the published lists of the College, did not possess a diploma of any kind, and we published extracts from letters we had received from various gentlemen bearing on this subject. We have to announce that since our article went to press two of the gentlemen above referred to have received the coveted document.

It is a settled point, then, that the College does issue a diploma, but this is attended to in such a slipshod way as to throw discredit on the institution.

It is customary by all similarly constituted bodies either to appoint a special day upon which the graduate receives public acknowledgment, by some public ceremony, of his having passed a successful examination, and at the same time receives his diploma, or the Diploma of the College is presented to him by the presiding officer at the time that he is informed of his success. The candidate looks forward to the possession of the diploma as an evidence of his success; he has earned it, fulfilled all the necessary conditions, and passed the required examinations, he may be on the eve of leaving the country, and requires the diploma as evidence of qualification abroad. Young physicians who purpose practising their profession in Canada, register either in Ontario or in this Province of Quebec prior to entering on the real business of life. It may be that they desire to enter some public service. Having complied with all the rules and regulations of the College or the licensing body of the Province it is not too much to ask for an acknowledgment in the form of a diploma, and this diploma should be given to the successful candidate without delay.

The College of Physicians and Surgeons of Ontario has, however, instituted a new *regime*. The diploma of the College is held

over by the College officials, and is forwarded to the candidate, or to his address, when the Registrar has time to attend to it. It is an after-act of the Registrar, on whom is thrown the onus of keeping track of the licentiate, and as soon as he can make time, or that his inclination leads him, the diploma is despatched. It would appear that this very onerous and all-absorbing labour is a work of time. One of the gentlemen referred to in our last issue received his diploma thirteen months after having paid his money and passed his examination and then only, after having written four letters of remonstrance to the Registrar, to which he received no reply. The request was complied with certainly, but in a manner which reminds us of the parable of the unjust judge and his treatment of the importunate widow, "Lest by her continual coming she weary me."

We hope that these irregularities will cease, and that a new state of things will be introduced. We may state that unsolicited information continues to pour in. That the matter has become a just cause of complaint, and that unless a change is introduced the profession in Ontario will be forced to lay their grievances before the Local Legislature, which may result in an unpleasant investigation before a Committee of the House.

THE REGISTRATION BILL.

We understand that the Registration Bill for the Dominion of Canada, submitted to the House of Commons by the Hon. Mr. Pope, and to which we drew attention in our last, was withdrawn. This is much to be regretted, as it is very desirable that we should be in a position to acquire reliable information concerning the vital statistics of the country. So long as matters are allowed to continue in the present unsatisfactory state, so long will we be unable to ascertain anything positive concerning the mortality of localities, or the increase or decrease of the population by a comparison of births and deaths.

THE LATE SIR GEORGE ETIENNE CARTIER, BART., M.P.

It may be deemed by our readers to be somewhat foreign to the mission of Medical Journalism to notice the death of a Canadian Statesman, nevertheless, it is well to bear in mind that the country has suffered a very severe loss. There are few names that will occupy so prominent a position as that of Cartier in Canadian History. Indeed its very first chapter chronicles the discovery of this land by a former Cartier, a name which must occupy

a prominent place in the annals and the rise of this great country into an important and prosperous nation. We mourn not for the loss of an able political leader, so much as for a true and honest son of the soil. As he was true to himself, to his friends, and to the country of his birth, and withal, though of French extraction, a true Briton, proud of the name and association of the country with whose destiny this Dominion has been and is so intimately connected, his life and political career should be dearly cherished. When the petty jealousies of creed and extraction creep into the councils of political and other leaders, let the memory of George Etienne Cartier be a monitor to arrest clamour and unworthy dissension which can lead to no general good, but which must end in disunion, weakened power and influence. We will not repeat the history of his life, our readers are already familiar with the oft told tale. Sir George E. Cartier was suffering from Bright's disease, and some months since he repaired to England with the hope of receiving benefit by the change of climate and professional advice. His health apparently improved, and he had so far recovered that he was making preparations for his return to his native land, when a change took place in the course of his malady, and he expired on the 20th ultimo, at 6 o'clock in the morning, at the age of 59 years.

Medical News.

THE KILMALCOLM "MURDER" (?)

The case which has been known as the Kilmalcolm murder, and which is almost unique in the records of medical jurisprudence, was tried at Glasgow on the 23rd ultimo before Lord Ardmillan. John Lang was arraigned for the murder of his wife, Margaret Lang, on the morning of the 2nd of January last. The Langs, who inhabited a farmhouse at Killochwraes, had been married nearly forty years, and the evidence went to show that they were sincerely attached to each other. They were both, it would appear, addicted to habits of intemperance, the deceased woman especially so. On New-year's day there had been merry-making at the farm, and a good deal of drinking; and when the Langs retired to bed there is little doubt that they were both considerably the worse for liquor. About one o'clock on the morning of the 2nd of January, John Lang called one of his daughters to come at once, as her mother had been taken ill. This daughter deposed that on going to her

mother's room she found her lying on the floor, supported by her father. She saw blood on the floor where her mother was lying, and she also saw "something else" (a piece of intestine), which she put in a chamber-utensil, and which was afterwards given to the doctor. The medical evidence went to show that the deceased woman had a clean cut wound in the vagina (the exact anatomical seat of which is not given in the report), through which a portion of the intestines, with clean cut ends, protruded. Seven feet seven inches of intestine had been cut off in three pieces, and the evidence went to show that these pieces were all clean cut, and not ragged, at the extremities, and that the intestine had been carefully separated from the mesentery. The woman survived these frightful injuries a whole week, and did not succumb till January 9th, the cause of death being loss of blood and peritonitis.

The difficult question for the Court to determine was, the one of suicide, homicide, or accident. The medical evidence was in favour of homicide, because of the concealed position of the wound, and the deliberation which had been manifested in cutting off the intestine. It was admitted that the injury was *possibly* suicidal, though not *probably*. In favour of suicide, we have the fact that the woman's hands were covered with blood, but the man's were not. Against the theory of murder, too, was placed the man's previous excellent character, and his attachment to his wife. In favour of accident we have the fact that no weapon was discovered with which the injury could have been inflicted. Two pocket-knives, one of which had been recently sharpened, were found in the trousers of the accused, but no sign of blood was found upon either of them, and it was not considered probable that the wound had been produced by either of these weapons. The deceased woman also made a dying declaration on the 5th of January—which was obviously false—to the effect that the injury was caused by her falling on a chair; that no person injured her; and that she and her husband had always lived on friendly terms. The case is certainly a puzzling one, and the utter absence of direct or even circumstantial evidence is very remarkable. The jury returned a verdict of "Not proven," after ten minutes deliberation.

The case is not the least remarkable on account of the long period which the woman survived, such injuries generally proving fatal in a short time from excessive hæmorrhage. Taylor mentions two cases of women who were murdered in Edinburgh some years since by wounds inflicted with razors on the vagina, and he further says that: "this crime appears at one time to have been common in Scotland." This medical jurist holds very decided views as to the nature of such wounds. He says: "When deeply incised

wounds are inflicted upon the genital organs of either sex, the fact of their existence in such a situation at once proves wilful and deliberate malice on the part of the assailant. Accident is wholly out of the question, and suicide is improbable except in the case of confirmed idiocy and lunacy." In a state of intoxication a woman may be practically an idiot or a lunatic, and we hold that it is very decidedly within the bounds of probability that the primary wound was self-inflicted. A comparatively trifling degree of traction will cause the bowel to separate from the mesentery (and separation in this way would account for the slight amount of hæmorrhage), and the bowel having been pulled out it is possible that an ignorant, half-intoxicated man may have cut this "something" off.—*The Lancet*.

CICATRICAL KELOID OF THE CERVIX UTERI.

At a recent meeting of the *Société de Chirurgie*, of Paris, M. Cazin read a paper on two cases of cicatrical keloid of the neck of the womb. The first case occurred in a woman, twenty-two years of age, who had had a child at the age of eighteen years, and had never had syphilis. On examination, the cervix was painful to the touch, and appeared covered with elevations. The speculum showed that these elevations were of a triangular form, and of a nacreous white appearance; they were hard, insensible, from two to four millimetres in diameter, and six in number. The patient had formerly been under treatment for metritis, and had had leeches applied to the cervix. Histological examination showed that cicatrical tissue had formed there now. The elevations were nothing else than the hypertrophied cicatrices of the leech-bites. The second patient, aged forty, was the mother of seven children, of whom the last was seven years of age. M. Cazin had applied the cautery to the cervix for the treatment of an obstinate ulceration, which was rebellious to all other methods of cure. The woman has now a keloid of the posterior lip of the cervix, in the position where the cauterization was applied some years since.—*Gaz. Hebdomadaire*, No. 44.

THE municipality of Berlin, alarmed at the 139 cholera cases at St. Petersburg since March, is preparing for the repulse of the disease. Meanwhile typhus fever abounds in the North German capital. Drainage operations, so loudly demanded by the Berliners, are about to commence, and a loan of £3,500,000 has been raised to carry them out.