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THE MEDICAL CHRONICLE.

VOL. I.]

MONTREAL, JULY, 1853.

[No. 2.

ORIGINAL COMMUNICATIONS.

ART. VI.—*Case of Osteocephaloma of Humerus—amputation at shoulder joint—secondary hemorrhage from axillary artery arrested by compression.* By GEO. W. CAMPBELL, A. M., M. D., Lecturer on Principles and Practice of Surgery, McGill College, Montreal, &c.

R. F., aged 28, from Western Canada, consulted me in September 1851, for a large tumour, which involved the whole circumference of the middle third of the left upper arm. The growth had evidently its origin in the bone, it measured about 15 inches in circumference, its surface was irregular and somewhat knotty, its feel firm over the greater portion of the tumour, with one or two elastic points affording crepitus when pressed upon, and it was not painful to the touch, unless roughly handled; there was no constitutional cachexy, general health good, and appearance robust. The history of the case as given by the patient was, that two years previously, he first observed a weakness in the left arm, accompanied by slight pain and swelling, the growth of the tumour being very slow for the first year and a half, but much more rapid during the last six months. I recommended the patient to enter the Montreal General Hospital under my care, and a consultation of the Medical Staff of that Institution having been held upon his case—amputation at the shoulder joint was deemed advisable, malignancy of action being suspected in the growth. The operation was performed on the 22nd September. The patient was seated in an arm chair, put under the influence of chloroform and the subclavian artery compressed upon the first rib over the clavicle. The arm being held at a right angle to the body, the knife was entered a little internal to the posterior border of the axilla, and transfixing close to the joint, was made to emerge at the anterior border of the deltoid, about an inch below the point of the acromion process, making a large posterior flap by cutting outwards—this flap was raised by an assistant, the arm brought across the chest, the capsule and the insertions of the capsular muscles divided, and the knife being carried through the joint to the inner side of the bone, an anterior

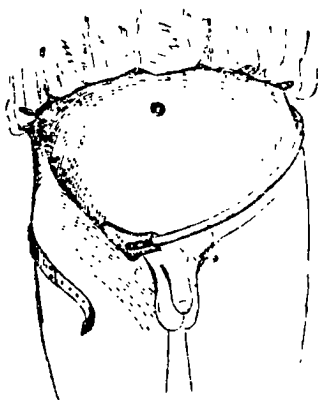
flap was made shorter than the posterior. The patient walked down stairs to bed from the operating theatre after the operation, and every thing progressed favorably till the 14th day, the wound having almost completely united, excepting for about an inch near its centre, where the ligature from the axillary passed out. On the afternoon of this day an alarming hemorrhage occurred. The gush was sudden, and the stream large, and it certainly would have proved rapidly fatal, had not pressure been promptly applied by Mr. Sinclair the acting apothecary; as it was, several pounds of blood were lost. At a consultation of the staff of the Hospital, it was determined instead of performing deligation of the subclavian at the outer border of the scalenus anticus muscle, or opening up the wound and attempting to secure the bleeding axillary, to try the effects of compression with the horse shoe tourniquet of Signoroni. From the tilting upwards of the clavicle, the anterior pad of the instrument was placed below that bone over the spot where the subclavian was felt pulsating upon the first rib, the posterior pad being applied to the dorsum of the scapula. From the tendency to slip upwards, it was found very difficult to keep the instrument in its position; but with the assistance of the pupils attending the Hospital, compression was maintained pretty steadily for five days, and then suspended, as it became irksome to the patient, and all tendency to hemorrhage seemed to have ceased.— This state of affairs continued till the 21st day, in spite of the frequent disturbance occasioned by a diarrhoea, which had troubled the patient more or less for a week previously, and which was found very unyielding to treatment. At 9 P. M. on the evening of that day, arterial hemorrhage again broke out, while the patient was in the act of describing a peculiar sensation which he then experienced, and which had also preceded the former attack, as if something fluid was trickling from the shoulder to the points of the fingers; only a few ounces of blood were lost, as the House Surgeon, Dr. Reddy, immediately re-applied the compressor, with a broad leather pad under the posterior limb of the instrument, to diffuse the pressure over a large surface, and a bandage which retained it securely in its place. The compressor was worn after the occurrence of the second hemorrhage for three weeks, until the ligature had come away, and the stump had completely cicatrized. The pressure was borne with great fortitude by the patient, who left the Hospital about two months after his admission perfectly restored to health, and has continued free from any return of the disease up to the present time. A very beautiful preparation was made from the diseased limb after removal, by Dr. Wright, who dissected off the soft parts, and made a longitudinal section of the whole length of the bone, preserving the one half in spirits, the other being a dry preparation. The humerus at the junction of the middle with the inferior third, was found expanded into

a mere shell containing medullary matter, the disease extending in the interior of the bone nearly as high as the shoulder joint; the muscles passing over the surface of the tumour had a sodden look and purple colour, but they had not degenerated into the diseased structure. The writer has been induced to place the above case upon record chiefly on account of the practical lesson which it teaches, that secondary hemorrhage from arteries of primary magnitude may be successfully treated by compression, as applied in the modern treatment of aneurism, at some distance from the bleeding point upon its cardiac aspect.

ART. VII.—*Description of Inguinal Hernia Pad.* By GEO. E. FENWICK, M.D., Lecturer on Materia Medica, St. Lawrence School of Medicine, Physician to the Montreal Dispensary.

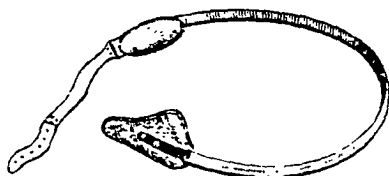
Very many have been the inventions for the support of Hernial Tumors.

The variety in shape of trusses and hernial pads cannot fail to strike the eye of the observer, and each year gives birth to some new patented invention which, like its predecessor, is found ineffectual, or uncomfortable, or to which some objection can be raised.



The accompanying wood-cuts represent an inguinal hernia pad, which I am induced to lay before the profession, inasmuch as I find on repeated trials, it fulfils admirably the desired object. It can be worn with comfort to the patient, permits great freedom of motion, and from its light finish, is not perceptible externally. The anterior pad, the part of the instrument with which we alone have to do, is triangular in shape; the base looks towards the pubis, is slightly hollowed out, and rests on the spine of that bone; the apex looks upwards and outwards; the inferior

edge is slightly concave, and adapts itself to the flexure of the thigh, thereby permitting great freedom of motion. The upper edge is also slightly hollowed out, and is overlapped by a fold of the belly, which effectually prevents its rising out of its position. The pad is adapted to the spring by means of a swivel screw, which prevents its shifting its position with each movement of the body. The spring itself is of long leverage, which possesses unquestionable advantage over the short spring. It crosses the front of the pubis. At the other extremity of the spring is a circular cushioned pad, which rests on the loins; a short strap belts the body and is hooked on the anterior pad.



From the shape of the pad, it will be found to cover the whole of the inguinal canal; by its equable pressure, it will be found most comfortable to the patient, and by its remaining fixed in its position it will not give rise to the local irritation (galling) which is much complained of by those who are so unfortunate as to require the use of trusses.

69 Craig Street, Montreal, June, 1853.

ART. VIII.—*Cases of Tetanus.* By JOHN REDDY, M.D., L.R.C.S.I., &c.,
No. II.

TRAUMATIC TETANUS.

Denis Walsh, aged 11, admitted into the Meath Hospital and County Dublin Infirmary, March 3, 1846, under the care of Mr. Smyly, complaining of severe pain in the head, chest, and along the spine, with difficulty of swallowing, and general spasm.

States that on Wednesday last, at mid-day, he received some smart blows of a stick on his neck, and along his back, leaving a slight bruise on the former, accompanied with some pain, which did not last long. Almost immediately he was seized with pain, chiefly confined to the forehead, but not so severe as to prevent him from playing about. With the exception of the head-ache, nothing particular was observed to be wrong with him during the remainder of the day. He slept uneasily during the night, and next morning was unable to leave his bed. Had great pain in the head, could only swallow a little tea, his jaw felt tight; experienced an uneasy choking sensation in the throat, which latter feeling became so troublesome, particularly when he attempted to swallow, that

he frequently dreaded suffocation. The saliva became thick and ropy, and could hardly be ejected from the mouth, bowels confined. His appearance on admission was very distressing, face pale, head and neck bent backwards to the greatest point of tension; eyeballs projecting, jaw tightly clenched; respiration hurried; spasms coming on frequently; opisthotonos very severe, lasting some seconds. All this time he appears to suffer great agony. When the attack is over, the entire body seems relaxed, with the exception of the neck, which remains all the time in the same position, and the head so bent backwards, that the crown rests upon the bed. Pulse 90.

Ordered to be cupped behind the ears, to six ounces. *Enema tabaci* statim. To remain 15 minutes in a warm bath, gradually raised to 100 deg. Fh. Then, to take the following draught every third hour, ℞ Tinct. *Cannabis Indicæ*, gtt xx, *Alcoholis*, gtt xx, *Aquæ*, ℥i ss. In the course of a few hours his bowels were acted upon, when he felt much easier, and could even swallow a little. 2 o'clock p.m. ordered mercurial friction to axillæ every fourth hour—towards evening had another motion from the bowels. The spasms were less frequent during the evening, he appears to be un'er the effect of the Indian hemp. To have enema repeated. 8 o'clock, p.m. Pulse 90, appears easier, had only two seizures since last visit; the rigid stiffness of the neck still continues unchanged.

4th. Pulse 90, compressible. Spent a restless night, was seized only four times with the spasms, is constantly moaning, though free from pain. No change in the rigidity of the neck. Bowels moved once last night; can swallow a little better to-day. Continue mixture, also the following pill, every third hour, ℞ Protochlor. hyd. gr ij, ant tart. gr. ½ m. To remain in a warm bath for an hour. Temperature to be gradually raised to 100 deg. Fh. Had only one attack of the spasm during the day.

5th. Pulse 80, feeble. Was quite free from spasm during the night, slept soundly, and did not awake unless when roused; is slightly affected by the mercury; seemed to be well under the influence of the Indian hemp. Rigidity of the neck still continues. Omit frictions and pills. Continue mixture; to have 8 oz. wine. Slight tendency to spasmodic, seizure throughout the day.

6th. Pulse 100 rather more volume than yesterday. He has been free from spasm all the night, and slept well; feels a great deal better; finds but little difficulty in swallowing; continue mixture; repeat bath as on the fourth; quite free from seizure during the day.

7th. Pulse, 112, soft. Feels much better, bowels regular, can open his mouth a little, and swallow better. There is not, however, the least relaxation in the neck. In every other respect he appears much im-

proved and quite free from pain. No spasms to-day, continue mixture and wine.

8th. Signs of further amendment to-day, muscles of the neck beginning to relax; can bring the head a little forward.

9th. Pulse 118, feeble. Not so well to-day, neck seems to have returned to its former rigidity. Complains of pain in the forehead. To have six leeches to the temples. Continue mixture and wine.

10th. Pulse 100. Feels much better, the leeching gave almost immediate relief; neck a good deal relaxed.

12th. Pulse 84, full. Neck quite flexible, can swallow any kind of food freely; appetite very good. Omit mixture and continue wine.

He continued to improve daily, without the slightest appearance of any return of the disease; and was discharged on the 27th, quite well and in good condition.

Remarks.—In the above case, many symptoms of much severity were exhibited upon admission, some of which seemed to obtain early relief by the cupping and use of the Indian Hemp. The power of swallowing having been soon restored, the system was well supported throughout by nourishment steadily administered, which circumstance, I have no doubt, played an important part towards the ultimate recovery; as persons suffering from this disease, when any abatement takes place appear unable to rally from protracted exhaustion. The tonic rigidity of the neck is a curious feature in this case, remaining unaltered four days after the cessation of general spasms. I consider that Indian Hemp appeared from the very outset to produce a most beneficial and decided effect. Although the system was brought fully under the influence of mercury, it did not appear to produce any particular alteration.

Montreal, June, 1853.

ART. IX.—*Severe Constrictive Disease of the Mitral Valve and Orifice, without a direct but with an indirect Mitral Murmur, non-persistent, and probably of Dynamic origin, with Remarks.* By B. P. HOWARD, M. D., L.R.C.S.E., Physician to Montreal General Hospital, and Montreal Dispensary; Demonstrator of Anatomy, McGill College.

(Continued from page 7.)

R E M A R K S .

I will make a few observations on some points in the above case which strike me as deserving of notice; and to begin with the most important, both on account of its unusualness and practical bearing on diagnosis:—

1. A systolic mitral murmur was heard on two different occasions, the 7th and 14th of Nov. respectively, and yet 13 days later, no murmur existed, although the heart's action was more excited than at the previ-

ous examinations. What consistent explanation can be given of this? It cannot be said that the murmur was anæmic and disappeared under the administration of iron, for then would it have accompanied the natural course of the blood, and been heard over the sigmoid valves. Neither could it be consistently attributed to temporary incompetence of the mitral valve, produced by engorgement of the left ventricle during the excited action of the heart, for on that supposition it ought not to have been wanting on a subsequent occasion, when such engorgement must have been increased as the dyspnœa and palpitation were. Nor was it the ordinary organic murmur of regurgitation, nor the rare one produced by friction of blood against irregularities on the endo-cardium at the base of the ventricle, whose disappearance was fairly referrible to feebleness of the central organ of propulsion, for the impulse was painfully violent and the pulse not deficient in force at the very period of the murmur's absence. Nor was it likely due to alteration in the direction of the blood, consequent upon dilatation of the left ventricle, which is now admitted as a possible cause of endo-cardial murmur, for such dilatation was not detected and did not exist, and such a murmur would be most audible at the base, not at the apex. What, then, was it? Prof. Walshe mentions the occasional occurrence of mitral systolic bruit in hypertrophy of the heart, and even in chorea, from disordered action of the papillary muscles*, and it was a knowledge of this and the above reasoning that led me, on the 27th, after examining the patient, to regard the murmur heard on the 14th, as originating in unequal closure of the mitral valve, consequent upon disordered action of the columnæ carneæ, and to refer its disappearance to the return of the physiological action of the muscular apparatus.

But I must not omit to notice here another and an opposite explanation of a similar occurrence advanced by the same close observer. Speaking of the occasional disappearance "during palpitation" of a murmur audible in a "calm state of the circulation," he remarks:—"I have only observed this in some cases of mitral regurgitation. Can it depend on irregular contractions of the wall of the ventricle, allowing of such slight and feeble regurgitation, that morbid sound cannot be generated?"† However, in my opinion, this explanation will not meet Cussiday's case; for the murmur was first discovered during an excited, not a "calm state of the circulation," and it subsequently disappeared and again reappeared under similar circumstances. May not some at least of the cases of mitral regurgitant murmur, alluded to by Prof. Walshe in the above quotation, have owed their origin to temporary

* Walshe on "The Heart, Lungs and Liver," pp. 210 and 416.

† Loc. Cit. p. 204, note.

unequal closure of the valve, and the absence of the murmur, have been the result of normal shutting of the same ?

2. The circumstance of organic disease of the mitral valve existing without its usual murmur and yet being accompanied by a murmur from disturbance of the papillary muscles—*i. e.*, by a dynamic murmur—is somewhat singular, and has not, within my knowledge, been hitherto mentioned.

3. This case affords an excellent proof, in addition to the many already recorded, of the possible existence of great obstruction of the mitral orifice, without morbid sound to indicate it ; nay, more, it shews that the same absence of bruit may obtain, even though the left ventricle be hypertrophied and capable, one would suppose, of propelling a current of blood with sufficient force to produce a loud murmur, for the natural weakness of the auricular systole is generally admitted to be the cause of the infrequency of diastolic murmur in obstructive disease of the auriculo-ventricular orifice. In speaking on the subject of contraction of these orifices, the accomplished auscultators, MM. Barth & Roger, made the following observation, which appears of peculiar value when placed in connexion with this murmur:—"Of all the preceding lesions, this is the one which most frequently produces no sound ; so that, if a patient presented the general symptoms of an organic affection of the heart with obstruction of the circulation (palpitation, dyspnœa, smallness of the pulse, œdema of the lower extremities), the absence of a cardiac soufflet would not be a reason for renouncing the idea of a constriction ; but we should then conclude that auriculo-ventricular coarctation existed. We have more than once, from this negative sign, pronounced a diagnosis, which the autopsy confirmed."*

4. It is still a debated question whether mitral obstruction, with hypertrophy of the left auricle, is ever accompanied by diastolic thrill, in the above case no such thrill was observed.

5. Since Hunter first, and Adams and Wilkinson King afterwards, wrote upon the safety-valve function of the tricuspid valve, an opinion has become tolerably prevalent that regurgitation through that orifice is a frequent, if not a constant, phenomenon in health, especially whenever active exercise, &c., has quickened the circulation and sent an increased quantity of blood to the lungs. This opinion, it is true, originated before the evil influence of tricuspid regurgitation on the systemic circulation was understood, and in late years it has been called in question by such authorities as Hope, Blakiston and Walshe. If such be the natural healthy action of the right auriculo-ventricular valve, why were none of the signs of tricuspid regurgitation, turgescence, knottiness and visible pulsation of the cervical-veins, systolic murmur at right apex, œdema or

* *Traité pratique d'auscultation*, p. 434.

anasarca, present in our case? Surely, with so much impediment to the progress of the blood through the lungs, caused by the great contraction of the mitral orifice, the right ventricle must have been habitually more distended than can occur in health, and its safety-valve function ought to have been manifested, more especially as the right ventricle was sufficiently hypertrophied to have produced not only visible pulsation of the jugulars, but tricuspid murmur also, had regurgitation existed.

Lastly, (not to protract these observations) it is interesting to note how the scanty admission of blood into the left ventricle was followed by diminution in the capacity of the aorta, and consequent smallness of the pulse (without irregularity or weakness, however), while its retardation in the left auricle, the pulmonary veins, capillaries and arteries, and finally in the right side of the heart, kept the pulmonary artery so distended, that it measured half as much more as the aorta, and at the same time became (i. e. the retardation) the exciting cause of the hypertrophy both of the left auricle and right ventricle, their muscular fibres being excited to increased duty. May not the arrested uterine function have been a consequence of the want of vigour in the system, produced by the diminished supply of arterial blood in the capillaries?

Corner McGill and Great St. James Streets }
 Montreal, May 13, 1853. }

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

III.—*A Text Book of Physiology.* By Dr. G. VALENTIN. Translated and edited by WILLIAM BRINTON, M.D. L.R.C.P., &c. Part 1, pp. 320. Henry Renshaw, London.

This work, which has recently issued from the English press, is an abridgement by Professor Valentin of the University of Bern, of the third edition of his more comprehensive treatise "*Lehrbuch der Physiologie*". The translator is medical tutor in King's College, London, and seems to have spared no pains in securing a faithful as well as readable translation; for, after rendering the original into literal English, every word and phrase were carefully weighed, and when expedient, exchanged for simpler or smoother equivalents: he has also appended occasional notes of explanation.

The matter is distributed over 13 chapters, the proportionate length of which does not appear throughout justifiable and equable, for while 58 pages are devoted to circulation, but 34 are allotted to secretion.—Our author shews himself a true German rationalist at the very threshold of his discourse, and shakes our confidence in his ability to do am-

ple justice to an exposition of the secret workings of a being not made by man. It is usually admitted that the arrangement of the organism is based upon a peculiar *vital force* which imparts to it properties differing from those of inorganic nature. Our author scorns such a faith, as "impedes a correct recognition of the fundamental principles on which the existence of living creatures is based; and leads to results which are decisively opposed by more exact physiological investigations", and concludes, that the phenomena of life are due simply to physical and chemical agencies. He does not support these statements with arguments, that they cannot pass for more than the worth of individual hypotheses. Equally cursory and dubious is much of his contrast of the functions of animals and vegetables; he does not dwell sufficiently on their points of similarity and dissimilarity, several of which are wholly ignored, although possessing much importance, as the acquisition and dismemberment of carbonic acid by vegetables, their appropriation of its carbon and elimination of the oxygen; so also with other instances of the unity and perfectness of the original plan of an all-wise Creator, as that of the pitcher plant, which *does possess a large cavity in which considerable quantities of food are collected and dissolved by special fluid secretions*. But facts such as these are safely eschewed, as they militate against the sweeping assertion of the author, which takes from vegetables all traces of digestive apparatus and function.

The fourth chapter is the longest in the book, embracing 80 pages and considers the physical properties of the human body. We fancy it in reference to this the translator introduces the following explanation in his preface:—This book may be used "as a convenient summary of many experiments hitherto imperfectly known in this country. It comprehends so much of various kindred subjects as may either obviate, or, what is better, fructify a reference to the ordinary text book of each, i. e. of Chemistry, Optics, Electricity, Magnetism and Physics in general. Here we have full descriptions of the Barometer, Manometer, Electrometer, Electro Magnetisers, and sundry other devices of cunning art. Here we can learn up the Daltonian theory, gaseous diffusion, specific heat, polarization of light, and many other modern instances. Here also are taken in capillary attraction, repulsion, friction, pressure of liquids, absorption, et id genus omne. Here the scientific sparks of light and electricity scintillate, and altogether a strange medley of facts is worked up as it were into an harmonious whole, the propriety of affording which so much space in a text book on Physiology must at least be very questionable.

After an introduction on the chemical composition of organized beings, the author enters upon the consideration of Digestion, and next takes successively Absorption; Circulation; Respiration; Evaporation; Secre-

tion; Vascular Glands and Nutrition—a separate chapter being devoted to each. It will thus be seen that Professor Valentin has not followed the custom of eminent Physiologists of our day, who, profiting by the recent advances in Histology and Morphology, fitly begin their writings with more or less of Physiological Anatomy, proceeding from which they gradually build up their subject, describing the functions after the organs, and these after the elementary tissues of their composition.—Observant of these conditions, Jackson, Carpenter, Todd and Bowman have originated arrangements of a truly scientific character, although in doing so they incurred the risk of being thought negligent or intolerant of antiquated usages—a risk which Valentin has certainly escaped.

The chapters above specified are, upon the whole, clearly written, and well deserving of a careful perusal. The subjects broached for the most part are treated at length, and with ability. Now and then, however, undue importance is given to trite and trivial matters, while frequently there is too much of the chemico-physical, and too little of the truly physiological. Many important subjects are entirely omitted. We hope to meet them in the second part, when it appears, although undoubtedly their proper places have already been scanned. Thus, in the account of the heart, nothing is stated regarding its impulse or sounds, although in treatises such as this, they have hitherto received marked attention. At the present day great uncertainty prevails as to the exact mode of their production, and the precise information they convey, which is the more important from the close bearing they have on the value of physical signs, as exponents of cardiac disease. No theory of the occurrences of health, we take it, can be correct which will not be sustained or proved by its applicability to explain the occurrences of disease. We know there are some, wise in their own conceits, who cozen themselves into the belief of an infallible familiarity with, and appreciation of, every bruit or sound that they hear; while there are others who profess to possess a refinement of such astonishing degree, that they can with absolute certainty mark even the accentuation of a murmur; but, until the physiological void which now exists be filled up with fresh observation, and secured from regaping by sound facts, we shall not dare copy either their dogmatism or dandyism. Under secretion we find no information concerning certain unequivocal secretions, as milk and semen, while other vascular products, as synovial and serous fluids are treated of, although, unlike the former, they are substances which can be easily separated from the blood, since they pre-exist in it, are not newly produced from the proximate components of the blood by a vital metamorphosis, and are not therefore according to Muller secretions.

While discussing digestion, the author observes that “so far as we know, the adult may live three weeks without any food,” and possibly

8 or 10 weeks if occasional drinks be taken. It would have been very interesting if some facts had been brought forward to support this statement—we are not in possession of any which would verify it, although we have endeavoured to collect all the cases of fasting on record, many of which are undoubtedly apocryphal, as of Democritus, who subsisted for 40 days on smelling honey and hot bread of persons existing for 2, 3, 4, and 5 years without taking either food or drink. The longest genuine case is that of a religious fanatic who determined to starve himself for 40 days, but died exhausted on the 16th day. In determining this question several circumstances other than the ingestion of liquids should be considered, such as the state of the person previous to beginning the experiment, since life will be longest protracted in some comatose diseases, and in persons reduced by illness: so also the condition in which they are placed for the want of food, will be best borne by those who are in a humid atmosphere, or immersed in water, or accidentally immured.

We are glad to find that an extended account is given of the metamorphosis which the various kinds of food undergo by contact with the different secretions of the alimentary mucous membrane, and its glandular tributaries, from the practical application which can be made of such information. Our space forbids as copious an excerpt of this portion as we would wish, but we shall briefly allude to the more important points which they are stated. The chief object of the chemical phenomena of digestion consists in the solution, as far as possible, of those solid compounds which we receive in the food. Gaseous fluids or liquids enter the lymphatics and blood by diffusion. Most drinks require no special digestion, while some, as beer or coffee, are mixtures of solids and fluids, and then demand for the solid part solution prior to its absorption. The water of the secretions serves for the solution of soluble substances, as sugar, salt, &c., the salts or alkaline phosphates which occur in most animal juices, partly aid in the solution of the earthy phosphates; the acid gastric juice can drive off the carbonic acid of alkaline and earthy salts. The saliva is incapable of dissolving fats or coagulated albumen, at a temperature over 98, it converts paste into dextrin and grape sugar, and so makes it soluble; the presence of the gastric juice does not arrest this action, hence it proceeds in the stomach; raw starch is also acted upon, but with much greater difficulty. The fluids of the mouth, of its mucous membrane and glands, with saliva, induce a most energetic saccharine fermentation in boiled starch. The short time during which the alimentary bolus remains in the œsophagus allows of no very important chemical changes. The chief object of gastric digestion is the solution of coagulated albumen (the fibrin are attacked by the admixed saliva) though much depends on the state of its aggregation and other qualities; the fibrin of blood offers less resistance than albumen of hard boiled eggs; the muscular fibres are more easily

overcome than the dense fibres of tendons or ligaments, and hard cheese succumbs so slowly that a part of it often passes into the duodenum: milk soon coagulates, so that the precipitated casein requires a new solution: the sugar of milk is converted into lactic acid, the albuminous wall which surrounds every milk globule is usually dissolved so that the globules of oil or butter become free and subsequently accumulate: vegetable albumen, legumin and gluten are dissolved: gluten is also overcome, it loses the power of coagulating on cooling, softer tissues which yield gelatin as the cellular tissue easily succumb while the denser, as tendons often resist the most continuous action: bones only lose a part of the large quantity of calcareous salts which they contain, but their cartilage yields more quickly to the gastric juice.

The fluid of the glands of Brunner, met with in the duodenum, is incapable of dissolving pieces of flesh or albumen, while it is able to convert starch into grape sugar. Its tenacity causes the more fluid fats to be minutely subdivided in the form of an emulsion, and allows them to retain this condition, and may furnish an organic ferment, from its mucus including substances undergoing metamorphosis. The pancreatic fluid greatly contributes to the production of lactic, and even carbonic acid from the suitable fats; it has but little power over paste, and still less over raw starch; it aids in the minute division of fluid fat in the form of an emulsion; it does not dissolve albumen. The bile has not yet been shown to possess any peculiar solvent powers: albumen, caseine and fibrine, resist its influence with great obstinacy: it is of but very little avail in converting starch into grape sugar, or in inducing the lactic or acetific fermentation. If the cæcum contains hydrates of carbon (fats), they frequently undergo the lactic fermentation: the acid thus caused probably dissolves many compounds, especially those of vegetable food and salts, as carbonate of lime, &c., and with the organic matter of the cæcal secretion, would furnish a mixture able to overcome coagulated albumen. Probably the alkaline secretion of the large intestine assists in taking up albuminous substances: the residuum of vegetable food here continues its fermentation, so that not only lactic but butyric acid may appear.

It is somewhat strange that no mention is made in any part of the account of digestion, of the secondary organic compounds ptyaline and xypine.

Our author frequently abbreviates, in a very remarkable way, the accumulated information of years, and often prefers putting down a summary conclusion of his own to acknowledging the demonstrative details of his predecessors. As an illustration, we quote entire his description of the arterialization, and carbonization of the blood, as stated in the chapter on expiration. "The scarlet color conferred on the dark red venous blood

in the capillaries of the lungs, is due to the action of the oxygen contained in the respired air. But future researches must accurately determine the details of this process. The redness of the blood is chiefly, if not exclusively, dependent on its corpuscles. We may therefore conclude that the more visible of its respiratory changes occur in these structures. But the facts rather indicate, that the gases concerned in respiration, make use of the liquor sanguinis as the immediate channel of their entry and egress. For it is probable that a part of the carbonic acid, nitrogen and oxygen is dissolved in the plasma of the blood." The writer should not have risked his reputation by such meaningless sentences as these; however easily they are penned, they tend to lower the high opinion that might otherwise be formed of his powers of analysis and diction, and the present instance he has almost deprived himself of sympathy from the total disregard which he has manifested for the researches and reflections of Mulder, Henle, Scherer, Nasse and Schultz, with which a student is expected to be familiar, but for which he may search in vain in a book written for the edification of "advanced pupils," and the "educated public."

As a distinct chapter on Evaporation is a novelty in Physiologic works, we present our readers with a synopsis of it. It takes in cutaneous and pulmonary evaporation, the union of which forms the total evaporation or transpiration. The amount has been determined in animals by a eudiometric analysis of the gaseous mixture breathed in a given time. Two methods of experimenting are described at length and plates of the apparatus introduced. Objections are put to the methods founded upon the probable risk of death from keeping an animal sufficiently long, within, for the necessary observation—the admixture of the air by flatus and the effluvia of fæces and urine passed during the experiment, and upon the difference of respiration in animals confined and in those at liberty. No plan is offered for remedy, further than making man, particularly the practised inquirer, the subject of experiment. Trials by the author himself gave an average of 2 lbs. 7½ to 2 lbs 8¾ oz. of water, given off by the pulmonary and cutaneous evaporation of his body, which weighed from 119 lbs. 2¼ oz. to 114 lbs. 1 oz. : this estimate includes the carbon of the cutaneous exhalation with the intestinal gases, the sebaceous secretion of the skin and the catarrhal fluids of the mouth. Most comes from the skin, not wholly from the glands, but chiefly, the moister strata of the cuticle, the highly moistened corium and its blood. The simplest view of late researches on the interchange of the gases in different animals, is obtained by bringing together the quantities per hour in proportion to a pound of corporeal weight, and by contrasting the weight of oxygen absorbed with that of carbonic acid given off, as regards the human subject, Scharling's

Hanover found that the adult male, gives off hourly from 3.13 to 4.14 grs. of carbonic acid for every pound of bodily weight; a woman, 3.16; and two children 5.82 and 6.33 grs. The perspiration alone carries off but little of this gas, its amount is from 1-25th to 1-52nd of the quantity given off by the lungs, it chiefly gets rid of water. Barral, from experiments on himself, found his weight to be 104.8 lbs., and that in 24 hours he consumed 37.4 oz. of oxygen, and 43.4 oz. of carbonic acid. Relative weight of carbonic acid to that of oxygen, as 1 to 1.16.

Under the head of urine, he alludes to its containing fat in many patients suffering from consumption and other diseases, and then says—"In persons of weak constitutions or debauched habits, boiling the urine often throws down, not only carbonate of lime, but also albumen which do not disappear on the application of nitric acid." "And in a variety of diseases—such as inflammation, diseased heart and dropsy—the urine sometimes contains large quantities of albumen. Hence this phenomenon forms no exclusive sign of that affection of the kidney which is usually designated by the name of Bright's disease." This old truth we have often, painfully, seen overlooked in the diagnosis of albuminuria.

The spleen, supra renal capsules, thyroid and thymus glands are considered together as vascular glands. He admits that the anatomy of the spleen is so different as to assign it quite a different office but retains it as the functions of the whole remain almost unknown. He alludes to the varied consequences which have followed removal of the spleen and to two opposite theories now in vogue concerning its use, according to one of which it manufactures new blood corpuscles, according to the other it destroys or dissolves those which have been formed. In support of the last Beclard notices that the splenic vein contains relatively fewer corpuscles than the subclavian. Of the supra renal capsules he observes it is probable that certain compounds secreted from the blood undergo a peculiar elaboration within them, but nothing definitely is yet known. A like supposition may be held of the purposes of the thymus gland, the final destiny of which is its conversion into fat.

The present part ends with an unfinished description of nutrition, which embraces in 18 pages a great many topics, for, after taking up the blood, it treats of the tissues, principally the sclerous, of inflammation with its events, and lastly of reparation. These are discussed with too much brevity and have no particular merit to claim special attention.

With the foregoing extracts and abbreviations, we close our review, and in conclusion take leave to testify to Professor Valentin's personal examination of many of the richest mines of Physiology, for which he is entitled to much credit. His work has had the benefit of well cultivated talents, with excellently directed exertions, and exhibits internal evidence of designs ably conceived and judgments maturely executed; it is there-

fore the more to be deplored that omissions are to be found, as we have shown, with too frequent recurrence; while throughout, there is with a few exceptions, as under circulation, an utter neglect of comparative anatomy and physiology. Most portions contain the expression of his own experience, but in several, the experience of his predecessors and compeers is not even alluded to, their labors are rarely referred to, and, occasionally, when noticed not acknowledged; so that while this book may enlighten a savant, it is comparatively unfitted for the beginner.—Moreover, we think that matter of inferior importance has now and then usurped the place of that which would have been superior, the shadow having been preferred to the meat.

This book, like all others of London workmanship, is beautifully printed on excellent paper, and in every way well got up. It professes to contain 500 illustrations, on wood, copper, and stone, most of which are scattered through the text, while the remainder are collected into five tablets and appended to the end; they are admirably executed, many are new, being representations of the author's own preparations, so that the looker on is spared the tedium of repetition, which is felt in examining several recent compilations of Physiology: not a few, however, have been put in to make up a show, as the figure of a skeleton which fills up page 230, and certainly does not meet the end in view by giving the reader an idea of the peculiarities of the respiratory muscles. The utility of the work is somewhat lessened by the want of an index and table of contents; our task has truly not been lightened thereby.

CLINICAL LECTURE.

Clinical Lecture on Scarlet Fever. By Hamilton Roe, M.D., Physician to Westminster Hospital. [Condensed from the *Lancet*.]

To-day I have to direct your attention to three cases of scarlet fever, which afford good illustrations, one of them, of its usual course when it goes on favorably, and two, of terminations which I believe to be more common than are supposed.

The first case is that of Samuel Stamford, aged 13, admitted 16th October, and now (Nov.) convalescent. He was a blear-eyed, scrofulous looking boy, but not weak, and lived in an unhealthy locality. There was no evidence of contagion. He said he had fever and sore throat three days before admission, and since then gradually got worse. He was covered with a scarlet eruption, most marked over abdomen. His throat was red and swollen, and swallowing was impeded; tongue coated at base, red at tip and edges; respiration easy; pulse quick; heart's action accelerated, but no unusual sound; skin hot; bowels not opened for three days; breath offensive; urine high colored; senses dull, and notices no one.

It is evident that we must first ascertain the causes and consequences or terminations of a disease, before we can form a correct notion of its proper treatment; for without this we know not what is to be effected, and what prevented; and, therefore, have no guide in selecting remedies. The present opinion respecting scarlet fever is, that in common with typhus, cholera and other epidemics, it is caused by the introduction of some poison into the system, from inhaling air mixed with miasma or a noxious gas; that when the poison is got rid of soon, recovery takes place; but when it is not, it induces disease of one or more organs which often destroys life. The kidneys, bronchi, and lungs are most often affected, and scarlet fever may therefore end in Bright's kidney, bronchitis or pneumonia. Rheumatism has been seen by Dr. Golding Bird to succeed it.

The first indication of treatment after the introduction of a poison is to give its antidote, and this we should do in epidemics if we could; but we know of no medicine which can destroy an animal poison within the body; we therefore strive to counteract its effects, and aid the system to throw it off through some of its emunctories. The first effects are usually chilliness, rigors, oppressed circulation, and a torpid depressed state of the nervous system—sometimes speedily fatal. I have known scarlet fever kill within twenty-four hours after the appearance of the eruption, and small pox has often done the same. To counteract these effects, many give emetics as early as possible after the disease has set in, as tending to cool and soften the skin and induce it to perspire; they also divert the blood from the internal organs to the surface, and aid in eliminating the poison. The medicines next given are to fulfil one of the following indications, according to the view of the practitioner—to increase some natural secretion, in the hope of its carrying off the poison—to strengthen and support the system under its own efforts to get rid of it—or to destroy its power by chemical action. With the first view Hamilton advised purgatives; with the second, others recommend carbonate of ammonia, bark and stimulants. With the third, hydrochloric acid and chlorine, with gentle aperients, have long been used in this hospital and elsewhere. The chlorine mixture is made by mixing chlorat potass gr. x with hydrochloric acid ʒi; and when the chlorine is all evolved, adding water to it by degrees, until it is taken up. Diluents and liquid nutriment are also given freely; and under this treatment the large majority recover. Thus, is scarlet fever to be treated, for we have no antidote to its poison; belladonna has been asserted to be one, as well as a prophylactic against it, simply from its causing the same symptoms, but its frequent failures prove that it possesses neither power.

So that these principles might be partially carried out. Stamford was given at first an emetic of sulphate of zinc and then a mixture of antimony and ipecacuanha; he was to drink freely warm rennet whey, which contains much of the nutritive matter of milk and is readily absorbed by the veins without much effort of the stomach to digest it; weak beef tea and veal broth were also ordered. Flannel, soaked in a saturated solution of camphor in spirits of wine—a valuable stimulant—was put round his throat, with very good effect, as suggested by Mr. George of Kensington, in his book on its utility in small pox. On the 23rd, an infusion of cinchona was substituted for the former medicine, and he left

the hospital well on the 2nd of November. His urine never contained albumen.

The next case is Clara Glovers, aged five years and a half, admitted 21st October. She resided in a house pronounced healthy a few days before by the Sanitary Commission. Her parents had seven children; two were dead at home when she was brought in, and the other four were sickening, probably with her disease. She seemed a strong child, and was said to have been very well until the day before, when she began to be very feverish. On the morning of the 21st a scarlet rash appeared all over her body; her throat was very sore, skin hot, pulse quick, respiration natural, and tongue very red, but she had no alarming or unusual symptom. To take one grain of tartar emetic immediately, and afterwards the chlorine mixture with a gentle aperient; rennet whey and broth were her drink and diet. She went on very well till the 23rd, when she seemed languid, pulse feeble, eyes sunken, her color of a leadenish hue, and the eruption paler; but she had no cough, moving *alæ nasi*, dyspnoea, nor mark to show that the lungs were becoming diseased. Believing she was sinking and wanted support, wine was given with arrowroot, and her throat was sponged internally with a stimulating gargle. At the visit, next day, she was still more depressed—warm wine was instantly given, but, after swallowing a few teaspoonfuls, apparently with pleasure, she turned up her eyes, as if going to have a fit, and expired. That was the fourth day of the eruption.—Many of you were at the autopsy, and saw that the arytenoid cartilages were so close together that the air could not pass them, and therefore this child died from suffocation; the trachea and bronchi were healthy, but the lungs throughout were here and there congested; the heart and kidneys were natural; the head was not examined.

The important question in reference to cases of a like kind is—Had the state of the lungs been superinduced by the narrowing of the glottis, or had that been caused by the congestion of the lungs? On the former supposition, tracheotomy might have saved this child's life; on the latter it would have been useless and recovery could only have followed the use of active measures to relieve the lungs. The progress and termination of the next case shows which of the diseased states was probably the antecedent, and also the treatment most likely to be successful.

Henry Walsh, 11 years old, admitted early in September, suffering from great difficulty of breathing. Countenance blue; respiration loud and wheezing; chest moved very little during respiration: sounded tympanitic generally, but in some parts slightly dull; loud râles of various kinds over the chest; heart acted feebly, but sounds natural. His breathing was said to be affected from childhood; nauseating medicines were advantageously given, and he went on tolerably well till 20th October, when he became feverish, skin hot, throat very sore, pulse quicker but respiration less difficult than usual; body covered with a scarlet rash, tongue very red; he had probably taken scarlet fever from a boy in the same ward, who was then in with the disease. An emetic was given immediately, followed by the chlorine mixture, warm whey for drink and beef tea for diet. He went on well till the 25th, when he exhibited the peculiar look which Clara Glover had, when she changed for the worse—a faint expression, sunken eye, and similar-colored skin; pulse very feeble as her's, skin cool, but breathing not worse; no phys-

ical signs to show that the lungs were worse, but this likeness to the child, in whom the lungs were congested, led me to believe he was similarly affected. Under this persuasion, I gave him one grain of tartar emetic every four hours, and directed that wine or brandy should be administered, if the medicine lowered him too much. Next day, he was visibly better; the sunken eye and depressed countenance had gone; his nervous energy was increased; pulse stronger, skin warmer; color bluish. The tartar emetic ordered to be given only when his breathing became difficult: he took it twice in the next twenty-four hours. This plan was continued for a few days. On the 1st November he was suffering less, in every way better than on admission; wheezing not so loud, râles fainter; and he is now as well as usual. Never any albumen in urine.

His appearance and symptoms on the 25th being so like Glover's on the 23rd, made it more than probable that the same cause had produced them. That this cause was congestion of the lungs, was made all but certain by its detection at her autopsy; by the benefit the boy got from medicine specially useful in such cases; by the absence in both of stridulous breathing, and the signs which invariably accompany contraction of the glottis; and in the girl of any old change of structure, to cause sudden death. The state of the lungs, therefore, was not, in either case, from a contracted glottis, for the latter's symptoms were never observed either in the boy or indeed in the girl, so that it must have been the antecedent affection.

In such cases, tracheotomy could not be useful, and the only measures likely to be so would be those able to aid in removing congestion. But you will naturally inquire, why the state of the lungs was not detected at its commencement? The answer is, that our attention was not attracted by any visible respiratory disturbance. Organic affections of the lungs are amongst the sequæ of scarlet fever, but are not expected at its early stage, so that we did not make that examination of her chest, necessary to detect the slight congestion which existed, and which would not have been fatal unaccompanied by fever. In the boy's case we were on our guard from what we had seen of the girl, and therefore made a proper examination, discovered the state, and administered remedies, which, as you saw, restored him, while apparently dying. In typhus of a certain type, this form of congestion, without dyspnoea either visible or complained of, is common; we are therefore always on the watch for its first symptom. But not so in scarlet fever; for death in its early stage—that is soon after the appearance of the râle—is referred to the shock given to the system by the poison. In a later period of the same stage, but before the eruption is gone, it is usually ascribed to the state of the throat, and the depression of the vital powers, which are thought to be the later effects of the same cause; and it is only after the complaint is over that organic disease of the kidneys, lungs and bronchi are believed to occur.

Now, from these two cases, I suspect that often when debility and the throat affection are supposed to be causing death, congestion of the lungs is the real agent, and that these are merely its effects or consequences. To determine this I shall solicit the aid of my medical friends who see much scarlet fever among the poor to examine those who die of it, to record the alterations of structure they observe, and the stage when their

signs were first noted ; and until statistical inquiries remove all doubts as to the cause of the peculiar symptoms observed in the last two cases, to try tartar emetic whenever they present themselves. Meanwhile let us learn that in the early stages of other fevers than typhus, congestion of the lungs may take place, and that from the diminished sensitiveness to the want of air which probably all fevers produce. Such a condition may be unknown to the patient, and not marked by the symptoms always observed, when there is no specific fever to mask them, and therefore, that in all fevers we should examine the lungs daily.

THERAPEUTICAL RECORD.

(*Brit. & For. Med. Chir. Review*, April, 1853.)

Ascites.—Teissier relates three cases of ascites treated by iodine injections, composed of 60 to 70 grains of iodide of potassium, 7 to 10 drachms of tincture of iodine, in 6 ounces of water. The iodine was rapidly absorbed and excreted through the kidneys. M. Ore has used iodine injections in 5 cases; two were cured; three died, but not from the injection. The first effects were sinking, pallor of face, lowering of pulse, and severe pain; in ten minutes these symptoms went off; subsequently there was heat, pain, fever, some meteorism, colic, and sleeplessness. No important peritonitis, however, ever appeared to come on. The strength used was one part of the tincture to three of a vehicle. The remedy is contra-indicated in ascites, dependent upon heart or liver affection, or when there is kidney disease. When the ascites is from peritonitis, or follows ague, the injection is to be used.

Ague.—Dr Galamini speaks in strong terms of the febrifuge power of sulphate of quinine when combined with equal parts of tartaric acid—a much smaller quantity of the alkaloid so administered sufficing. During an epidemic of ague, it was given in 43 cases, in 31 of which it speedily effected a cure. In 21 of these, half a scruple sufficed, while in 10 others it required more continued use. In most of the cases, there was hyperæmia of the brain or bronchial membrane, enlarged spleen, or gastro-biliary derangement, requiring the preliminary employment of bleeding or purgatives. Of the 12 other cases, 5 had relapses; in 3 no effect was produced; in 4 the above named irritative symptoms returned.

Convulsions Puerperal.—Mr. Bolton relates a case in which severe puerperal convulsions, coming on immediately before labor, and unchecked by depletion, were completely arrested by the inhalation of chloroform. Dr. Holst, in a bad case of puerperal convulsions, attended with great rigidity of the os uteri, threw up warm water against the os uteri for six minutes, as in Kiwisch's method for bringing on labor. The os speedily dilated, and labor was completed by the forceps.

Diabetes Mellitus.—Dr. Hanekroth recommends a mixture of sulphate of iron *ziss*. tinct. cinch. *c.*; aq. menth. ana. *3vi.*; 20 to 30 drops every two hours. In two cases there was perfect recovery. Mr. Sampson states that the permanganate of potash *grs. ii.—v.* in solution thrice daily, has a marked effect in reducing the quantity of urine in cases of obstinate dyspepsia, and in diabetes mellitus. In a case of the latter dis-

ense, the quantity of urine fell from 10-12 pints to its normal amount, but still contained sugar.

Diarrhœa.—Mr. North, in noticing the employment of *dilute sulphuric acid* (in 3ss doses every 2 or 3 hours) states that it is in the serous forms, especially when attended with cramps, that it is most useful.

Neuralgia.—Cazenave recommends in facial neuralgia an ointment composed of chloroform 20 parts, prussiate of potash 10 parts, and lard 60 parts: a piece the size of a walnut to be rubbed over the painful part. An oiled-silk cap is then to be worn for some hours.

Ulcers.—Mr. Hancock has employed to phagedænic ulcers undiluted chloroform, as a local application, with benefit. The pain is severe, but not so much so as from the use of strong nitric acid; the effect is equally useful. Melicher recommends a solution of *gutta percha in chloroform* for the purpose of covering scrofulous and indolent ulcers, and protecting them from the action of the air.

Vomiting.—Dr. Inman recommends chloroform (five drops with water) by the mouth in sympathetic vomiting. It is less nauseous than creasote.

PERISCOPE.

Fusel Oil in Phthisis.—Dr. Storer remarked, that during his last term of four months' attendance at the Massachusetts General Hospital, he had administered the fusel oil in several cases. In only two of these cases, however, had it been taken any length of time. They were now referred to, that the attention of the members of the Society might be directed to the subject; that they might test the value of the oil as a remedial agent. In the cases now noticed, although no perceptible change had been brought about in the physical signs during its use, great relief had been produced of several of the most annoying symptoms.

Susan Lynch, aged thirteen years. Ireland. Entered hospital Sept. 1st. Some dulness observed on percussion over right scapula; well-marked submucous rale; bronchophony; dulness on percussion under right clavicle; crackling, and pectoriloquy.

Ordered fusel oil, three drops in a drachm of wine, to be given three times daily.

Oct. 27. Cough lessened; weighs ten pounds more than upon entrance.

Ann Ferguson, aged twenty-two years; domestic; born in Ireland. No hereditary predisposition to disease; well until three and a half years before entering hospital, Aug. 13, 1852. After a day of hard work and exposure, took cold, and has suffered from cough ever since. Had hæmoptysis two and a half years ago, very slight; and again, about one week since, raising a few mouthfuls. Cough now most urgent in mornings. Has chills, heats, and night-sweats; has lost flesh since last spring; expectorates thick yellow matter.

Aug. 13. Dulness on percussion beneath right scapula with increased resonance of voice and muco-crepitous rale. Also muco-crepitous rale and resonance of voice below right clavicle; expectorates a thick muco-purulent matter, a portion of which is slightly tinged with blood; nails aduæque; weighs 10½ pounds.

Ordered fusel oil, five drops in a drachm of wine, three times daily, immediately after each meal.

Sept. 2. Cough has diminished since taking oil; is much more comfortable experiences no inconvenience from cough.

Oct. 8. Weighed yesterday 109 pounds, having gained seven pounds since entrance.

Dr. C. E. Ware reported a gain of ten pounds of flesh in a patient, in eight weeks, under the use of *palliatives* merely; the case being one of phthisis, and aggravated also. In three cases in which Dr. W. had used the fusel oil, it was borne well as far as the dose of eight drops; there was no perceptible effect from its use; death took place in each of the cases. Few patients can bear large doses, in Dr. W.'s experience; he now has one who takes fifty drops, *ter die*; and another who takes thirty drops as often; he has never observed pain in the bowels from the use of this medicine.

Dr. Gray asked if Dr. Storer's patients at the hospital were *not better fed and cared for*, while there, than previously; and if this should not enter somewhat into the case as an element in the causation of increase of flesh, &c.?

Dr. Minot, who had charge of one of the above patients, previously to his entrance at the hospital, said that his *cleanliness* was vastly improved by the change; also, that at his home, the *ventilation* was excessively bad; his food had, probably, always been sufficient.

Dr. Gray said he had tried the fusel oil in one instance, but it proved so disgusting to the patient that it was discontinued.

Dr. Hayward, Sen., thought that Dr. Storer's cases must be received with a degree of caution; the change in comfort and nutrition the patients experienced at the hospital is certainly an element of importance in the treatment. To test any medicine fairly, the patients must be kept in the same hygienic condition, continuously, during its trial.

Dr. Storer said he did not wish to avow his faith in the fusel oil; nothing else was taken, however, and it certainly had a marked sedative action.

Dr. Jackson remarked that phthisical patients do not, usually, improve at the Hospital, but the reverse; he considers the results in Dr. Storer's cases as very striking, under the circumstances.—*Boston Society for Medical Improvement.*

On Chronic Rheumatic Arthritis.—Mr. Canton stated that he had brought this subject under the notice of the Fellows of the Society, in consequence of the frequency of the occurrence of the disease, its intractable nature, and its being also one which was alike interesting to the surgeon and physician. This obstinate malady invades both the small and large articulations, and equally may affect those of the fingers and toes, or of the knee or hip, inducing in them the most unsightly deformity, and permanently impairing their functions; so that the power of prehension is lessened or lost, and locomotion is perverted or prevented. The joints of the lower jaw may experience the attack, when discordance of speech ensues, and mastication of food becomes difficult. The spinal articulations may suffer, and the body become irremediably contorted, whilst internal organs are thereby secondarily and often seriously affected. Exostoses very commonly spring forth from the joint-ends of bone; cartilaginous may lie, in large numbers, free in the articulation; whilst the neighboring tendons, enveloping ligaments, and other adjoining fibrous textures, are more or less encroached upon by ossific deposits, all of which must, in their progress of formation, press injuriously upon the nervous filaments in their locality, and

thus superadd continued irritation, whilst they are establishing insuperable disfigurement and impeding freedom of movement. Alike may all the varieties of joints be affected—from the simple arthrodia to the perfect anarthrosis: and these, even in their minutest examples in the body, (articulations of the internal ear-bones,) may succumb I believe to an invasion of this disease and loss of hearing ensue. On this latter point however I merely surmise, but analogical considerations support the probability. The causes of this disease were next discussed, and a case quoted from Dr. Todd's Croonian Lectures, in which it had affected all the joints of a poor girl twenty-five years of age. In speaking of the porcellaneous deposit so commonly seen in parts where the articular cartilage has been lost, it was remarked this was formerly thought to be due to a new deposit, but Professor Quekett finds that the extremities of the Haversian canals which became exposed were then filled up by osseous matter, and that subsequent friction merely established eburnation, much in the same way that the French-polisher plugs up with wax the pores and fissures of open-grained wood before he can hope by friction to establish a gloss upon it. The other morbid appearances were severally considered, and the difference of the appearances they presented from those arising from inflammation of joints pointed out; and it was also noticed that the changes very commonly exhibited examples of that symmetry of disease which had been especially commented on by Dr. Budd and Mr. Paget. The symptoms accompanying the affection were then detailed, and their analogy to those occurring in rheumatism, and at the same time their difference from them, pointed out. Here as in other instances of disease which are the offspring of constitutional taint, we sometimes find that the onset of the symptoms may be ascribed to some violence which has been inflicted upon the articulation; and in such cases we have the same train too of morbid changes ensuing in the joint tissues as those already sketched out. It is in these examples that the surgeon has not unfrequently been scandalized for want of professional acumen in failing to detect and determine the exact nature and extent of the mischiefs; and after a time, when the patient leaves his bed and moves about, it is found that the lower limb, for example, is shortened, and the foot more or less everted, in consequence of a blow which has fallen upon the trochanter major, but which at the time produced no further violence than a contusion, though resulting in the establishment of chronic rheumatic arthritis of the hip. A fracture within or near the capsular ligament is presumed to have happened and been overlooked; and when death occurs an examination of the upper end of the femur shows the neck of the bone more or less absorbed, the head sunken and resting on the trochanter major, with irregular and exuberant bony growth around the supposed site of the cervical fracture; and in a word the specimen is said to prove the ignorance of the surgeon in not detecting the mischief, and the skill of nature in repairing it. Such false deductions however will not be drawn by those who are conversant with the morbid anatomy of chronic rheumatic arthritis. The case of Mr. Matthews, the comedian, was given at length, and the error described which Mr. Snow Harris had fallen into when he presented to the Medical Section of the British Association, in 1836, the upper part of the thigh-bone from this patient as an example of long union of an intracapsular fracture. The real bearings of the specimen had been pointed out to the satisfaction of Mr. Harris and the meeting, by Mr. Adams, of Dublin, and the instance proved to be one of the morbid character above mentioned. How fully conversant ought we to be with facts such as these; for, a person who had been for some time laboring under this affection

of the hip-joint may fall, strike the part, and, when submitted to examination, be pronounced upon as having fractured the cervix femoris within the capsule, and the opinion be grounded upon such facts as a shortened limb, everted foot, increased pain in the sedentary posture, articular crepitus on rotation, advanced age, and the slight cause producing the symptoms, &c. I need not dwell upon the surgically inflicted misery which the unhappy victim of rheumatism may have to succumb to in the absence of a knowledge of the complaint under which he really labors. In respect to the shoulder-joint, errors had very commonly been committed; and the post-mortem appearance of chronic rheumatic arthritis had commonly been attributed to the result of violence which had caused a rupture of the articular portion of the long bicipital tendon, and allowed thereby of an upward dislocation of the humerus. The names of those by whom such mistakes had been committed were mentioned, and the morbid anatomy of the rheumatic complaint, when implicating this joint, fully explained, in proof of the position advanced by the author of the paper. Lastly, the cases of dislocated toes which were exhibited by Mr. Coulson to the Medical Society in 1850, were demonstrated from fac-simile specimens then before the fellows, to be instances of this rheumatic affection. The above observations will tend to show that the present subject is one which will yet bear a little more consideration at the hands of the surgical section of our profession than it has generally received. The principles upon which the treatment should be conducted were explained, and those internal medicines and local applications described which should be employed; and, in conclusion, it was stated that the present subject had been brought under the consideration of the fellows by the author, as one which he believed might, with profit, engage their attention; one which presents so many features of high interest both to the surgeon and physician; and one which, from its frequent occurrence, its intractable and painful nature, its implication of the young, the adult and the aged; its slow and stealthy, but certain and destructive encroachments, might well urge them to discuss its nature and progress, and tax their skill for its relief and cure.—*Lancet*.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUERI.

To Subscribers.—As very few numbers, comparatively, of the "Medical Chronicle," have been returned, we would respectfully direct the attention of intending subscribers to the statement made in our first, viz: That after the third issue the Editors will not consider themselves obliged to transmit the fourth and succeeding numbers to any gentleman except those who have sent in the amount of their subscription. We notice this the second time, for the purpose of obviating any feeling of disappointment should the Journal not be received by some gentlemen after the fourth number has been issued. We would at the same time reiterate the promise to enlarge the "Chronicle," as soon as the amount received warrants us in so doing. In this matter we are merely the servants of the profession and shall obey its dictum.

To those friends who have already remitted their two dollars, we tender our thanks. We transmitted acknowledgments on the receipt of the monies, which we hope they duly received.

COMPULSORY VACCINATION.

Small pox has always been a loathed and dreaded disease. Nor is this to be wondered at. The hideous disfigurement of the features which is present during the different stages of the eruption, and the heavy, disagreeable odour which emanates from the person of the patient, particularly during the periods of maturation and desiccation, render him, for the time, an object of disgust even to those most nearly related to him by ties of consanguinity or affection. The deep pits and scars, moreover, the results of the cicatrization of the pustules, which too often remain after the subsidence of the eruption, is not less distressing to the friends than to the person affected, from the great and permanent alteration which they make in the personal appearance of the individual. Since its first outbreak in Arabia, in the era of the Hegira, A. D. 622, down to the present time, it has been distinguished, in its different epidemic visitations, by a rate of mortality greater than obtains in many other diseases. This, in conjunction with its repulsive character, sufficiently accounts for the manifestation of dread which is usually exhibited by the great majority of persons as it approaches a place, or makes its appearance among a community.

The Asiatic and Northern African nations appear to have practised inoculation for small pox many centuries before its introduction into Europe. They, at an early period, became cognizant of the benefits to be derived from the induction of the disease in a person previously prepared for its reception, particularly at a time when the prevailing epidemic was mild in character. They observed that inoculation, under such circumstances, produced a disease of far less severity, and one which was not as liable to terminate in death. The practice was adopted in Constantinople at the end of the 17th century; and the first inoculation in London took place in the year 1721. It was introduced into the latter place by Lady Mary Wortley Montagu. From thence it spread slowly, meeting with great opposition; but towards the latter part of the 18th century, it was generally practised throughout Europe. Just at this period, 1798, Dr. Jenner announced to the world his immortal discovery of Vaccination. One would require to be familiar with the fearful accounts which have been transmitted to us, of the great malignancy of small pox during past ages, to duly appreciate the vastness of the blessing conferred on mankind by this apparently simple discovery. The older authors abound with heart-thrilling descriptions of cities depopulated—populations decimated, or almost entirely swept away, and kingdoms

thrown into mourning and distress by this fearful scourge. The practice of vaccination was, at first, strenuously opposed by certain parties in England; but, in a few years it became universal throughout Europe and America, and some parts of Asia, and the discoverer was every where lauded as a benefactor of his kind. Inoculation was now almost altogether thrown aside. Some persons, however, continuing to prefer it to vaccination, a law was passed by the Imperial Parliament, in the year 1840, prohibiting the practice of inoculating with the matter of small pox throughout England and Ireland, under heavy penalties.

It is a singular fact that, while countries abroad have adopted a different course, in Great Britain, where the protective virtues of the vaccine virus were first discovered, no governmental action has been taken, until lately, for the purpose of making the practice of vaccination obligatory. England and France are the only two countries in Europe where vaccination is left to the option of parents or individuals. A bill, however, has been recently brought before the house of Lords, by Lord Lyttleton, and ordered to be read the third time, for the purpose of extending the practice of vaccination in England. In this bill his lordship does not interfere in any way with the act now in force, but rather seeks to extend its provisions. The law, as it exists at present, empowers the guardian of every Union to contract with a medical man to perform vaccination on the children of all who choose to avail themselves of the opportunity. His lordship, in addition to this, would make vaccination compulsory by pecuniary penalties, as now obtains in Hanover, Bavaria, and Sweden. Some very striking statistics were brought before the notice of the house, shewing the marked infrequency of small pox in those countries where through the stringency of the laws, persons were obliged to get their children vaccinated, and the obvious effect which vaccination has on the multiplication or declination of the disease in proportion to its restriction or extension. "The average of deaths," said his lordship, "from small pox out of every 1000 deaths from all causes wit in the bills of mortality were in the 10 years preceding 1760, 100; 1770, 108; 1780, 98; 1790, 87; 1800, 88; 1810, 64; 1820, 42; 1830, 32; 1840, 23; 1850, 16. If he came to particular cases, he found that Mr. Sivett of Wells mentioned a village in which there had been no small pox since 1837. In Chelsea Royal Military Asylum, in 48 years, on an aggregate of 31,705, not one death had occurred from small pox after vaccination, and only four from second attacks of unvaccinated persons. In Ahmedabad, in Bombay, where vaccination was introduced in 1817, it became general in 1825 and small pox had since been unheard of. In Hanover, in 1847, of 45,830 deaths, there were only eight from small pox. In Denmark, at one period small pox had entirely disappeared, so universal was the practice of vaccination."

In comparing the two systems of compulsion and non-compulsion, he would present two extreme cases :—

“ In Ireland, where the greatest ignorance and prejudice might be supposed to prevail on the subject, no less than 58,000 persons had died from small pox in the ten years ending 1841, and in subsequent years the state of matters was not much improved. That was one extreme. The other occurred in a part of Europe where the material condition of the population was extremely good—he referred to Lombardy. In Connaught, which might be considered the part of Ireland where vaccination was most likely to be neglected, the number of deaths during the ten years ending 1841 were 60 in 1000; in Lombardy they were $1\frac{1}{2}$ in 1000 or 3 deaths in 2000. These were the two extremes. The average mortality of late years in England and Wales only, excluding Ireland, which would make the statement worse, and excluding Scotland also, regarding which country the same might be said, although there were no returns on the subject,—the average number of death in England and Wales during 8 years, was nearly 22 in 1000; whereas in a long list of countries in which vaccination was compulsory, it ranged from 8 in 1000 in Saxony to the $1\frac{1}{2}$ in Lombardy, and the average was not quite five. These facts show that in this country the mortality from small pox was four times as much as it was upon the Continent.”

The Earl of Shaftesbury said :—“ The growing increase of small pox had been attributed to diminution in the protective power of vaccination. However, all cases, when examined, confirmed its protective power.—The principal vaccinator of the metropolis, the resident Surgeon of the small pox hospital, had vaccinated during the last 18 years upwards of 40,000 persons, and, up to the present time, he had met with no instance of any one of those persons having been attacked by the small pox.—Let them look now to the effect of compulsory enactments. They would find that where vaccination was compulsory, small pox was least fatal. In Prussia it was compulsory, in Copenhagen it was nearly so, and in London and Glasgow it was permissive. There were, in every 1000 deaths in Prussia, 7.5 of small pox; in Berlin, 5.5; in Copenhagen, 6.75; in London, 16; in Glasgow, 36; in Greenock, 34.6; in Bohemia, 2; in Lombardy, 1.5; in Venice, 2.2; in Sweden, 2.7. In Copenhagen, during 13 years—from 1811 to 1823—there had not been one fatal case of small pox in a population, at that time of 100,000. Vaccination was not compulsory in France; but the vaccine committee in their last report, advised that France should at length follow the example of many other nations. The deaths were about, in every 1000, 10.5 per cent; and the number had been only repressed by the exertions of government.”

These very important statistics satisfactorily establish the undoubted protection which vaccination affords against an attack of small pox: and

the conclusion is irresistibly forced on our minds, that if it were possible to have every individual in a community properly vaccinated, small pox would soon be a disease of extreme rarity, if it did not disappear entirely from such community. In further substantiation of this, we have the facts embodied in a paper, "*On the protection against small pox afforded by vaccination, illustrated by the returns of the Army, Navy, and Royal Military Asylum,*" recently brought before the Medico-Chirurgical Society of England, by Dr. Balfour. According to this gentleman's statistics, it appears that in eight years, from 1844 to 1851, out of a total number of 1,125,854 soldiers, only 745 cases of small pox occurred, or 66 to every 100,000 men; while among 363,370 sailors, there were 417 cases of small pox, or 115 in every 100,000 men. The deaths from small pox have been only 130 in nearly 1,500,000 men. When it is considered that soldiers and sailors must be frequently in parts of the world where small pox prevails extensively, these statements speak loudly in favor of the protective influence of vaccination. It is, therefore, a wise and humane act on the part of the Imperial Legislature, to oblige, under penalty, every individual in Great Britain and Ireland to undergo vaccination. By so doing, they adopt the most certain plan of entirely eradicating small pox.

We have no hesitation in asserting, in the light of the foregoing facts, that it is the manifest duty of the Legislature of every country, showing a ratio of 10 deaths from small pox to every 1000 deaths from all diseases, to protect the citizens, in like manner, from this loathsome and fatal disease. In estimating the merits of this question, more should be taken into consideration than the immediate mortality of, and alteration of features left by, the disease. From its usually attacking persons while they are in the state of infancy or childhood, before the processes of growth and development have proceeded to any extent, those who recover are left in a condition not at all favorable to the production of robust, healthy manhood. The whole mass of blood has been poisoned, and the system has received a shock from which it seldom completely recovers. Infirmary of constitution, and consequent liability to various diseases, is entailed upon the individual for life. Nor is it physical perfection alone that is interfered with. The retarding and deteriorating influences which date their origin from an attack of small pox, are quite as inimical to mental as to bodily development.

There are few countries where compulsory measures, to ensure general vaccination, are more imperatively demanded than in our own. Small pox is constantly in our midst. Sometimes occurring sporadically; at other times, as during the last winter, prevailing epidemically. In Lower Canada, of which we speak more particularly, the same prejudice appears to exist among our Franco-Canadian countrymen against vaccina-

tion, as is found to prevail among the population of Connaught and other parts of Ireland. Inoculation is regarded by many with more favor, as the Bill brought forward in the House by the Hon. Mr. Belleau, and published in our present number, sufficiently evidences. To those two causes then—prejudice against vaccination, and the practice of innoculation—we are, in a great measure, indebted for the continual presence of small pox amongst us. By the passing of the Bill mentioned above, a remedy has been provided for one of the existing evils. And we trust that the next meeting of Parliament may not be allowed to pass over, without something being done to remove the remaining and principal evil. *Vaccination must be made compulsory by legislative enactment, if we arc ever to rid the country of this repulsive disease.*

The question may here be asked,—What proofs have you that the mortality from small pox, as compared to the mortality from all diseases in Canada, is in the proportion of 10 to 1000? We admit the difficulty of the question. The want of a complete system of registration in the Province, makes it impossible to obtain returns of the whole number of deaths from small pox or any other disease. We think sufficient information may be gleaned, however, by patient and careful enquiry, to enable us to arrive at satisfactory conclusions on the subject.

The corporation of Montreal, some years ago, had printed forms struck off and sent to the different medical men of the city, on which, among other things, the disease of which the patient died was to be recorded. Bills of mortality were made out, by Dr. Hall, from those records, and published in the "British American Journal." The poverty of the corporation in 1848, was the excuse offered for refusing the paltry sum necessary, to keep up this very important registration. As the city funds are in a flourishing condition at present, we hope the Health Committee will recommend the appropriation of a sum sufficient to pay for the printing of similar forms, to be distributed, as before, among the Physicians of Montreal. By an examination of these bills, we find that, from December, 1846, to March, 1848, inclusive, there occurred, in the city of Montreal, 5,811 deaths from all causes; whilst during the same period, there were 87 deaths from small pox. Thus, then, the mortality from small pox, as compared with the mortality from all diseases, for two years and three months, proves to be 15 to every 1000. And if we were to deduct the 1462 deaths which took place in June, July and August of 1847, during which three months typhus fever was epidemic, the proportion would be much greater.

For the last year small pox has been epidemic in Montreal. The only source from which we could obtain information regarding its fatality, was the register of deaths kept in the Seminary. The books were kindly placed at our disposal by Mr. Sancer. This gentleman, who makes the

entries, stated that he feels convinced that many children who are entered without the name of the disease being appended, died from small pox. Those which we have selected were in every instance marked distinctly as having died of "Variola." There were, from the 2nd November, 1852, to the 1st January, 1853, 286 persons interred in the Roman Catholic burial places of the city. Of these 286, eleven died of small pox; the proportion to 1000 being 31.1. From the 1st January to the 30th June, 1853, the number of interments were 1065, of which 58 died from small pox. The mortality rising in those eight months to the high ratio of 54.4 in every 1000 deaths from all causes.

We are certain that, were it possible to obtain correct information as to the number of deaths which have occurred from variola during each year, for the last five years, throughout Canada, the ratio in which they would stand to all deaths that have occurred during each year for the same period, would vary between 15 and 60 in the 1000. It is high time, therefore, that something were done to check the ravages of this scourge.

We purpose taking up the consideration of this matter at some other time, when we hope to be able to lay before our readers additional information. If, in the mean time, some of our correspondents would send us an account of the relative mortality of small pox during the last one or five years in their own locality, we shall esteem it as a great favor, and shall duly acknowledge their communications when we write again on the subject.

Bill to restrain the Practice of Inoculation.—At the close of the recent Session of Parliament, on the 14th June, the Governor General was pleased to give his sanction to the following Bill:—intituled, "An Act to restrain the injurious practice of inoculating with the small pox."—The preamble and enacting clause of the Bill read thus:—"Whereas it is highly expedient to restrain the injurious practice of inoculating with the natural small pox (variola); Be it enacted, &c., That any person who shall produce or attempt to produce, by inoculation with variolous matter, or by wilful exposure to variolous matter, or to any matter, article or thing impregnated with variolous matter, or wilfully by any means whatsoever the disease of small pox in any person in this Province, shall be liable to be proceeded against and convicted summarily before any two Justices, and for every such offence, shall upon conviction, be imprisoned for any term not exceeding one month."

College of Physicians and Surgeons.—We would beg to remind the members of the College of Physicians and Surgeons of Lower Canada, that the triennial meeting takes place on the 13th instant, at Three Rivers.

English Periodicals.—By an advertisement on our cover, it will be perceived that Mr. Dawson offers to supply the three leading English Medical periodicals at a much reduced rate. This is an excellent opportunity to obtain the Journals mentioned, which should not be neglected by those who have not already subscribed to them.

HOSPITAL REPORTS.

MONTREAL GENERAL HOSPITAL.

Extensive Fracture of Skull; Wound of Meningeal Artery; Symptoms of Compression;—Operation; Death in 25 hours.

(REPORTED BY MR. JOHN D. CLENDINNEK.)

Aubert Gruleau, a Canadian et. 17, apparently a strong, vigorous lad, was brought to the Montreal General Hospital about 1 o'clock A. M., 4th June, 1853, in an unconscious state, and laboring under symptoms of Compression of the Brain, with very severe spasmodic action of right side, occurring at intervals of a few minutes.

His companions stated that he had been a sailor on board the Barge "La Reine Blanche," and about 2 hours previously (11 o'clock P. M. 3d.) whilst lowering the sails, by means of a windlass, the latter flew violently round and struck him on the head, knocked him down, producing immediate insensibility, which remained since. On admission, there was considerable effusion under scalp, at each parietal protuberance, with signs of depression on the right side; the feet were very cold, head and remainder of the body warm; his head was shaved, and on examination by Dr. Reddy (house physician) no external wound was visible. 10 grs of calomel were given immediately; hot water applied to the feet, followed by snapisms to the calves of the legs, and 2 grs of calomel ordered to be given every hour, with the application of iced water to the head constantly till the usual daily visit.

12 o'clock, noon. The following appearances presented themselves: There was great effusion all over the scalp, depressions however perceptible, particularly one on right side; complete paralysis of left side of the body with Anæsthesia, left eye alternately dilated and contracted, and constantly in motion; violent convulsive jactitation of extremities of right side, occurring about once every minute; right eye permanently dilated, lids generally closed, breathing stertorous and rapid, and pulse very variable, full, slow, and averaging 68. Upon making an incision into the scalp over the depression, a considerable quantity of dark blood escaped mixed with portions of brain.

After a consultation with Dr. Fraser, Dr. Sutherland extended the opening, and with a pair of forceps and elevator, extracted 3 pieces of the parietal and temporal bones, which were not more than $\frac{1}{4}$ of an inch thick, and altogether about 3 inches long, by a little more than 1 inch in breadth; a good deal of hemorrhage followed, which was stopped by the formation of a clot and the application of lint and cold water.

$\frac{1}{2}$ past 1. Has had several convulsive attacks, some exceedingly violent and chiefly affecting the right arm and leg. Pulse 154, full and soft. Breathing stertorous; respirations numbering 60 per minute; pupils of both eyes dilating and contracting.

$\frac{1}{2}$ past 2. Has had severe convulsions, shows no signs of consciousness, but still retains the power of swallowing. Pulse cannot be counted, respiration 50, and more oppressed.

$\frac{1}{2}$ to 3. Has just had a severe rigor, affecting the right side only, pulse 160, raised his head and swallowed a spoonful of water.

$\frac{1}{2}$ past 3. Pulse 104, pupils contracted, skin moist and warm, has had no return of rigors or convulsions for some time.

$\frac{1}{2}$ past 4. Pulse cannot be counted, respirations 58, slight occasional jactitations principally of right side, appears more sensible, and swallows water with apparent ease.

3 o'clock Pulse 136, made an attempt to speak but is unintelligible, breathing not so stertorous, Respiration 52.

$\frac{1}{2}$ past 5. Pulse 104, very weak, skin cool and bedewed with clammy perspiration, he had several convulsive paroxysms, during which the breathing was hurried and laborious, in the interval easy, made another attempt to speak, and articulated two words in French distinctly.

$\frac{1}{2}$ past 6. Paroxysms more frequent and severe, pulse very weak.

$\frac{1}{2}$ past 7. Pulse very weak, cannot be counted, pupils widely dilated, but contract under the influence of light.

9 P. M. Passed a quantity of dark colored feces involuntarily.

$\frac{1}{2}$ past 9. Spasms still continue at slight intervals, in consequence of fullness over Hypogastric region, Dr. Reddy introduced a catheter and drew off a few ounces of pale urine.

10 Spasms less violent and convulsions not so frequent.

11 Convulsions as before, respiration irregular and panting, averaging about 72, symptoms of complete stupor present, coma afterwards came on, and he died at 20 minutes to 12.

Post Mortem Examination, 17 hours after death.

On dividing the scalp, there was considerable effusion of blood, between the pericranium and skull, so that the scalp could be detached without difficulty. There was a large opening on the right side covering the situation of the parietal protuberance, corresponding to the portions of bone removed previously, extending downwards, the fracture passed through the petrous portion on temporal bone of the same side into the fissura glaseri, extending upwards it opened out the coronal suture, passing across the sagittal suture and extending to the petrous portion

of the temporal bone of left side, the *arteria meningea media* was ruptured, at the part which corresponded to the opening, the brain was broken up, the cavity being filled with clotted blood, but not extending into the lateral ventricle. The same thinness which the piece presented was observable over the entire skull, it being scarcely $\frac{1}{4}$ of an inch thick in any part.

MEDICAL NEWS.

The Lord Mayor and Corporation of Dublin have caused a new petition to be framed, to be presented to Parliament, praying, that the grants to the Dublin hospitals may be restored to their original amounts and placed upon a permanent footing.—A Bill for the more effectual carrying out of a proper system of medical registration in Ireland will be shortly introduced by the Right Honorable the Chief Secretary for Ireland.—M. Paul Dubois, the senior member of the Faculty of Medicine has the appointment of accoucheur to the Empress of France. His father, M. Antoine Dubois, attended Marie Louise on the occasion of the birth of the King of Rome.—The Prefect of Police at Paris has issued an order prohibiting the use of any coloring for sweetmeats excepting prussian blue, chalk and ochre. He likewise cautions the public against the use of copper vessels, and threatens the adulteration of milk with marked punishment.—The Fothergillian gold medal for the best Essay on wounds and other injuries to the abdomen has been awarded to Alfred Poland, Esq., Assistant Surgeon to Guy's Hospital.—All persons found drunk in the streets of Clonmel, are sent to gaol, and there subjected to the operation of the stomach pump for which the apothecary is paid 7s. 6d. in each case.—The Physicians of Singapore, recommend the coffee leaf as a substitute for the berry.—A Surgeon writing from the gold fields, says he has discarded the lancet and is now opening veins with a pickaxe.—Death from chloroform lately happened: in the University College Hospital, London,—where, during four years, only one fatal case occurred in 1600 instances of its employment; it had been used previous to the application of nitric acid to a sloughing ulcer of the labia and vagina. The jury returned a verdict, "that the death was caused by paralysis of the heart, produced by the influence of chloroform, casually, accidentally and by misfortune."—A commission *de lunatico inquirendo* has pronounced Mr. Feargus O'Connor of unsound mind.—In London, during one week the births of 292 boys and 921 girls, in all 1816 children were registered. In the eight corresponding weeks of the years 1846-52 the average number was 1473.—Miss Hardwick, the daughter of a deceased Surgeon who for many years lived an eccentric life, secluded from the world, lately died and left £18,000 to be divided among the different medical charities of London.—A committee with Professor Graham at its head, composed of most of the scientific celebrities of the day has been organized to present an honorary testimonial to Professor Liebig, on the occasion of his retirement from the University of Giessen, and his appointment at Munich.—The Horse Guards has lately increased the allowance of 4s. for each "line recruit", approved at head quarters.—Professor Syme has received a verdict in his favor in the action brought against him by Dr. F. G. W. Muller, for the publication of an alleged libel. The plaintiff by some extraordinary perversion of judgment had taken to himself some very severe remarks which had been directed by defendant against Mr. Lizars.—It is proposed in the *Caz de Paris*, to inoculate with pus from a venereal sore for the cure of inveterate venereal disease on the isopallidic principle or, at worse, to substitute a milder for a more severe form of syphilis with the belief that the one would supersede the other!

TO CORRESPONDENTS.

Dr Codd, Osgoode—Much obliged for his attention: hope he will be a frequent contributor to our pages. *Dr. Bethune, Berthier*—We shall endeavor to prevent the recurrence of a like mistake. *Dr. MacDonald, Alexandria*, has our thanks for his kind expressions and friendly intentions. *Dr Paquin, St. Genevieve*—The suggestion will be duly considered. *Dr Anderson, North Georgetown*—The first number was sent; out mis-directed "Georgetown."

BOOKS RECEIVED FOR REVIEW.

Taylor's Medical Jurisprudence, Blanchard & Lea, 1853. Simpson of Homœopathy; Paris Medicale; Warren's Cases of Occlusion of Vagina; and Report of Marine Hospital, Quebec.

Communications for the next number from Drs. McCulloch, Crawford Peltier, and Hingston of Montreal, and Dr. Verrity of Hemmingford.