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THE

MEDICAL CHRONICLE.

VOL III.] JULY, 1855. [No. 2

ORIGINAL COMMUNICATIONS.

ART. V.—*Lecture on a Case of Aneurism of Arch of Aorta, and Diseased Heart*, delivered in March, 1853 ; being one of a course on Physical Diagnosis. By R. P. HOWARD, M.D., &c., Physician to Montreal General Hospital, Professor Medical Jurisprudence, M'Gill College.

GENTLEMEN,—We have now in the wards a case presenting many points of interest, and furnishing us with an opportunity of applying those principles of physical diagnosis which have formed the subject of this course of lectures. You have already witnessed the examination of the patient, and have had several opportunities of testing for yourselves the existence of those conditions upon which my opinion of the nature of the case has been based, and I now propose to recall to your memories the details of those conditions, and to examine how far they justify the opinion formed :—

Robert Stuart, æt 64, a pensioned soldier, was admitted into my wards on the 28th February, 1853, complaining of cough, difficulty of breathing, palpitation, and inability to exert himself. Usually enjoyed good health until the fall of 1851, when he thinks he caught cold, as he was attacked with a severe cough, followed in a fortnight by difficult breathing. He was bled, and after some time the cough ceased altogether ; but since then he has experienced a constant sense of "fluttering at the heart," and when walking vast dyspnœa has been added to this, and occasionally severe pain has extended to the left shoulder, and down the left arm to the elbow. Within the past few weeks he has suffered from these symptoms more than previously, and besides a paroxysmal, laryngeal cough, a sense of obstruction or "difficulty" in the region of the trachea, there have supervened much dyspnœa on the least exertion, occasional attacks of severe pain in the spine of the left scapula, and a sensation of *pins* running into his fingers, even when lying quiet. He preserves almost the semi-erect position in bed, inclined to the left side ; sleeps very

little, his short naps, being restless and disturbed by dreams. There is no œdema nor dropsy of any part; and the expectoration is a scanty mucus.

The following is a summary of the physical signs carefully noted on the 2nd instant, two days after his admission:—

Inspection.—Visible pulsation of right carotid, subclavian, brachial, radial, femoral, and posterior tibial, and of left subclavian, femoral, and posterior tibial arteries. Enlarged internal and external jugular and inferior thoracic veins; epigastric veins visible, but not enlarged; varix of right internal saphena of many years standing; no pulsation in veins; inspiration in erect posture causes filling and turgescence of right external jugular; expiration has contrary effect. Pulsation of cardiac region below nipple and of the epigastrium and adjacent superior abdominal regions. Prominence of the epigastric, and both hypochondriac regions; none of the thoracic walls; some fluttering of left infra-scap., and of both supra-clavic regions.

Palpation.—Pulsation of arteries of right arm and side of neck much stronger than that of their opposites. Right radial pulse full, soft, jerking, regular, vermicular,—90 a minute. Left radial, also jerking, is so weak that it is counted with difficulty,—also 90. Rather forcible pulsation of the epigastrium synchronous with heart's impulse, which latter is strongest at xyphoid cartilage, and about ¾ of an inch to outside of right nipple, and 3 inches lower down, occupying 6th and 7th spaces; rather weak between nipple and sternum, where the sounds are quite audible.

Mensuration.—Circular measurement at nipple, 18⅛ inches on right side, 16⅛ inches on left. Expansive movement, ¾ inch on right side, ½ inch on left.

Percussion.—Great clearness of right side of chest as low as 7th cartilage anteriorly, the 8th rib laterally, and the 10th or 11th posteriorly; similar clearness, but not in equal degree, also exists over a larger space than natural of the left side, except in the region of the heart, where the superficial transverse dullness measures 3½ inches, and extends from ½ inch outside nipple to edge of sternum; the deep-dulness reaching to right edge of sternum; vertical dulness commences at upper edge of 4th left rib, and extends down 4 inches. Hepatic dulness extends considerably below margin of ribs on right side.

Auscultation.—Respiratory murmur heard generally over chest. Inspiration soft, equable, and distinct; expiration longer, louder, and hollower than it, having somewhat of a bronchial character, over the right lung posteriorly; the same characters of inspiration and expiration obtain over left lung, but their intensity is very much less, especially in the lower part of scap. and in the infra-scap regions, where, indeed

respiratory sounds are relatively very weak. Voice has a peculiar muffled resonance, which is slightly greater at root of left lung, and much greater at inferior angle of left scapula than at corresponding points of right side.

Loud, rough, blowing, systolic, and diastolic murmur over heart generally; loudest at 3rd right cartilage, and an inch above and below that, next at 3rd left cartilage, and next at 2nd right cartilage,—but here both murmurs are decidedly less audible than at 3rd cartilage. The cardiac 1st sound audible, but accompanied by murmur, and the 2nd audible without murmur at ensiform and right 5th cartilages. In left 5th intercostal space, 2 inches from sternal edge, and 2½ inches below nipple, —*i.e.*, about situation of displaced apex,—the 1st sound is audible, but accompanied by a faint murmur, and the 2nd sound unattended by murmur is faintly audible. At left nipple, both sounds audible without murmur. Both murmurs audible below centre of clavicles, and louder on right side; systolic murmur faintly audible in both inter-scap. regions, more so about situation of root of lung than lower down. Cardiac rythm natural.

Diagnosis.—Hypertrophy with dilatation, chiefly affecting left Ventricle; displacement of heart downwards and to the left; tumor, most likely aneurismal, involving transverse portion of aortic arch, to left of arteria annonyma; doubtful whether combined with constrictive and regurgitant disease of aortic orifice.

Why did we conclude that hypertrophy with dilatation of the heart existed? Because of the direction and increased extent of the cardiac dulness, vertical, and transverse, and of the cardiac pulsation; the force of that pulsation; the existence of a condition likely to induce hypertrophy, viz., obstruction to the onward flow of the blood, caused by the (supposed aneurismal) tumor at the arch, and the probable coexistant *disease of the aortic orifice; the strength of the pulse in the arteries of* the right side of the neck and the right arm; and the distinctness with which the cardiac sounds were audible over the dull region.

Were the extensive dulness present due to fluid in the pericardium, the dullness would have extended upwards above the 4th rib, rather than downwards considerably below the nipple, and would have had a pyramidal outline; and such an amount of effusion as must have obtained to have caused the extent of dullness existing would have rendered the heart's sounds almost inaudible, or very much muffled them, in the cardiac region, and have caused the heart's impulse to be almost imperceptible, and given it an undulating character. The absence of prominence of the cardiac region does not affect the question materially, as it is a rare condition met with, both in copious pericardial effusion

and extensive hypertrophy of the heart. Neither, in my opinion, does the fullness of the epigastrium; as the enlargement and downward displacement of the heart consequent upon its own increased weight, and the additional weight of a tumor near its base, and perhaps partially consequent upon the state of the right lung, will as properly account for it as would the presence of fluid in the pericardium.

I regard the hypertrophy as chiefly affecting the left ventricle; firstly, because the dullness extended so much downwards and to the left; and secondly, because a condition favorable to the production of that state of the left ventricle existed either at the aortic orifice, or the arch, or at both. Dilatation was inferred to exist with the hypertrophy on account of the loudness of the cardiac sounds, their wide transmission over the chest, the large surface over which pulsation was perceptible, the fair volume of the arterial pulse, and the moderate force of the heart's impulse. The right ventricle, I concluded, participated in the condition of the left, both because of the marked epigastric pulsation, and the existence of some degree of obstruction to the pulmonary circulation resulting from the hypertrophied, if not the emphysematus, state of the right lung and the compression of the left, to which your attention will be again directed.

The next clause in the diagnosis requiring comment is "tumour most likely aneurismal, involving transverse portion of aortic arch to left of arteria innonym." You will remember that the left side of the chest on the level of the nipple measured an inch and three quarters less than the right, that there was flattening of the left infra-scapular region, and that the expansion movement was diminished on the same side—that yet there was no dulness on percussion over the lungs except that in the cardiac region, and that while the character of the respiratory sounds was very much alike on both sides, their intensity was much less on the left—that there was no past history of pleuritic effusion to explain this condition of the chest—that there was a somewhat muffled voice, a laryngeal paroxysmal cough without expectoration, and a sensation of obstriction referred by the patient to the upper part of the trachea—that the pulsation in the left carotid, sub-clavian and radial arteries was very much weaker and less visible than in the right—that the right external jugular and thoracic veins were more distended than the left, and that the vocal resonance was greatest over the root of the left lung and the left infra-scapular region, than over the corresponding points of the other side. This combination of conditions seems plainly to establish the existence of a tumor of some kind, so situated about the arch of the aorta as to compress the left bronchus as it passes under that arch, and to involve the left recurrent nerve, which hooks round that arch, and to

interfere with the flow of blood through the vessels which rise from the left portion of that arch. This compression of the left bronchus preventing the admission of the normal amount of air to the left lung, accounts for the relative persistent weakness of the respiratory sounds universally over that lung, the deficient expansive movement, and the contraction of that side of the chest, without dulness on percussion. It is probable, too, that both the tumor and the enlarged heart may act in producing these evidences of internal pressure, by compressing the lung itself; and this seems the more probable, from the fact, that these evidences are strongest over the lower part of the lung, the part most exposed to such compression; but this admission, you will perceive, does not at all weaken the argument in favor of the existence of a tumor about the arch of the aorta and root of the lung. The existence of paroxysmal laryngeal cough, the hoarse raucous laryngeal voice, and the sense of difficulty in the trachea, without any detectable disease of the larynx, strongly favor the idea of tumor stretching, compressing, or irritating the left recurrent nerve, which, from its anatomical distribution must almost necessarily be affected by a tumor, situated as I suppose this to be.

But why consider the tumor aneurismal? For several reasons. 1st, Because that is by far the most frequent kind of intra-thoracic tumor. It is an important principle, generally acted on in the diagnosis between diseased conditions productive of similar signs and symptoms, to decide in favor of that one which is confessedly the most common. Aneurism, is admitted by most pathologists, to be more frequently met with in the chest than either malignant tumor (which is perhaps the next in order of frequency), or any other form of simple tumor. 2ndly, The situation of the tumor—the arch of the aorta—is one in which aneurism is more often observed than any other tumor, not excepting enlarged bronchial glands. 3rdly, It seems much more probable that an aneurismal dilatation (true or false) of the aorta itself would, while it compressed the left bronchus and recurrent nerve, also interfere with the current of blood in both the left carotid and subclavian, than that a tumor external to that vessel would do so. Lastly, the advanced age and the sex of the patient, the absence of expectoration resembling currant jelly, of œdema of the arm and side of the chest, corresponding to the side occupied by the tumor, and of any malignant cachexia, and the severity and course of the pain, felt chiefly in the spine of the scapula, and in the interscapular region, but occasionally extending down the left arm to the elbow and fingers, all favor the idea of aneurism rather than of cancerous or other kind of tumor.

The existence, then, of aneurism of the aortic arch is rendered very

probable, but is not positively certain, because of the absence of a circumscribed prominence of the front of the chest wall, having pulsation and sounds independent of those of the heart. This absence may be due either to smallness of the tumor, or to its taking an inward and downward, rather than an outward and upward direction, and is not sufficient of itself to negative the idea of aneurism.

But the last clause in the diagnosis requires consideration. It is beset with some difficulties which we had better examine. A systolic and diastolic murmur, more audible at the base than at the apex of the heart, accompanied by a jerking and visible pulsation of the arteries, is for all practical purposes admitted to distinguish disease of the aortic valves, or of the first portion of the aorta from disease of the auricular valves, and hence we excluded the latter valves and their orifices from any participation in the production of the murmur. But the combination of physical signs just mentioned, may be produced either by disease of the aortic valves permitting regurgitation through the aortic orifice, or by aneurism of the aortic arch. At one time it was supposed, that a jerking visible pulsation of the arteries, (a very anæmic state of the blood not existing) was a proof of permanent patency of the aortic orifice; but it is now well known that regurgitation of blood from the aorta into an aneurismal dilatation, or through an artificial communication into the pulmonary artery, the vena cava, the ventricles of the heart, &c., is capable of producing it. And as I have already given strong reasons for believing in the existence of aneurism of the arch, we must refer the visible jerking pulse to the aneurism, unless we have other evidence to adduce. Have we other evidence? We have. It is admitted by our first authorities in these matters, that when a murmur has a greater intensity at the 3rd right cartilage, than at the 2nd, it indicates disease of the aortic orifice, rather than disease of the aorta itself; and such being the fact in Stewart's case, I would at once decide for the existence of a morbid condition of that orifice, but for one circumstance, viz., the displacement of the heart downwards, which may explain why the murmur, though produced in the arch of the aorta, is more audible lower down, over the normal situation of the aortic valves, than at the aortic cartilage, (the 2nd right,) the point at which murmurs developed in the aortic arch are usually loudest. It is then chiefly because of the displacement of the heart that I have considered the existence of disease of the aortic orifice "*doubtful.*"

Montreal, June 25, 1855.

N.B.—The notes of this case were taken by Mr. (now Dr.) John L. Stevenson. Its sequel will appear in the August number of the Chronicle.

ART. VI.—*On some rarer Forms and important Complications of Scarlet-Fever.* By JAMES BARNSTON, M.D., Edin.

During the past six months, the febrile exanthems have prevailed to some extent in many localities of the Town and in its neighbourhood, and it is in the belief that some interest might be taken in the subject, that I submit the following observations on one of these febrile disorders, which is, perhaps above all others, subject to important deviations and severe complications—at all times worthy of the consideration of the Medical Practitioner.

It may be remarked, in the first place, that *Scarlatina Maligna* is always characterized by severe constitutional symptoms. From the first there is an evident and marked diminution or lowering of the vital powers. The nervous and muscular prostration is great and the general fever assumes the low typhoid or asthenic form. In many of these cases the symptoms gradually become aggravated and lead to a fatal termination between the fifth to the tenth or sometimes to the fourteenth day.

In some rare instances, however, occurring almost solely when the disease is epidemic, a fatal issue may take place within 20 to 30 hours subsequent to the attack, and that too without displaying any ordinary symptoms of Scarlet-Fever. The following case, witnessed four years ago will illustrate this remark. It was that of a boy, 12 years of age—one out of six of the same family, all lying ill of Scarlet Fever,—who was attacked at 1 A.M. with violent shivering, headache and vomiting, with very slight sore-throat. The pulse was quick, feeble and fluttering from the commencement. The vomiting continued unchecked by all remedial means, the general prostration rapidly increased, the whole energies became completely exhausted, and coma gradually supervened and deepened, till the patient died at ½ past one the next morning—exactly 24½ hours after the commencement of his illness.—The occurrence of death at so early a period is comparatively rare, but it may be observed that the rapidity of the fatal termination of the disease is much more frequent and striking during some epidemics than in others and we have it recorded, as in the epidemic of Malignant Scarlatina which prevailed in Paris in 1743, "every individual who was attacked perished, many indeed within *nine* hours from its invasion." In the majority of these cases where the patient sinks, as it were from the first, where the vital powers are rapidly exhausted and death speedily supervenes, no morbid appearances can be observed on *post-mortem* examinations, that could adequately explain the cause of death. No conjestion of the cerebral vessels, no vascularity of the membranes of the brain can be discovered, and even the small amount of serous-effusion which is only occasionally observed within the ventricles cannot in any degree account for the

serious nature of the symptoms or the rapidity of the fatal termination. The pathological cause of death is therefore uncertain.—It is more than probable that the sudden and extreme vital depression, exhaustion and rapid death, is the result of the malignant nature of the morbid poison which, when introduced into the system operates either by producing a diseased condition of the blood or by otherwise proving a direct and immediate *shock* to the whole nervous system, but more especially to the cerebral portion.

The complication—probably the most common and fatal in scarlet fever—is sloughing or gangrene of the throat, accompanied by suppuration of the cervical glands and in which there would seem to be a subsequent re-inoculation of the system by morbid poison. The case I now submit is but the history of many of those fatal cases, resulting from this serious complication. A girl, æt 16, first complained of sore throat, which on the second day became violently inflamed and swollen. The tongue at first coated with a whitish-gray fur, was now totally denuded of its morbid covering, became exceedingly dry and hard and presented *numerous red prominent papillæ on its surface.* The vital powers became greatly prostrated and the fever assumed a marked asthenic type —suffusion of eyes—no delirium. On the 3rd day the tonsils suppurated, the glands of the neck became swollen and enlarged, accompanied by a slight inflammatory blush on the surface. On the 5th day a large slough separated from the throat, followed by an ichorous discharge from the mouth and nostrils—the latter presenting a peculiar glazed appearance. Diarrhœa followed and all the general symptoms became more aggravated. On the 6th day, the neck became enormously swollen, the skin over it exhibiting a livid, shining aspect as if glazed; the right parotid suppurated and when opened produced a most sanious purulent discharge. At this time a fresh fever was lighted up, the pulse became quicker, smaller and more feeble, the patient more restless and fretful, and a low delirium occurred at intervals. The child lingered on, under the administration of stimulants till the beginning of the ninth day when she died comatose.

This solitary instance proves sufficient to show the malignant nature of the S. F. poison and its specific action upon the throat and glands of the neck. It would also lead us to believe, that towards the latter end, a new poison entered the circulation. The system became re-inoculated by the absorption of malignant purulent matter, adding fuel to the flame and lighting up, as it were anew and materially aggravating the already *established fever. There is another circumstance which tends strongly* to validate the probability of purulent absorption in cases of this nature, namely, the fact that the joints sometimes become seriously affected—the affection not being primary but secondary—the result of *purulent*

deposit. In relation to it Dr. Tweedie remarks:—"In a few instances we have seen the large joints suddenly become extremely painful to which swelling with evidence of fluctuation succeeded and the patient was destroyed in a very short time." Subsequently, when speaking of the morbid anatomy of these fatal cases, the same author observes:—"there are not always marks of inflammation of the synovial membrane. In the last case, however, which we examined in which pus was deposited in the left wrist and in both ankle-joints, there was deposition of pus exterior to the wrist-joint, among the carpal bones. The synovial membrane of the wrist and ankle was evidently redder than natural, but there was no abrasion. We are therefore inclined to think that these purulent formations in the joints may occur without antecedent inflammation; and even in the case alluded to we doubt the co-existence of inflammation; it is more probable that the pus which was deposited was not the consequence of the inflammatory action, but that the purulent fluid was deposited from the blood, in the same way as it is sometimes deposited in other parts of the body." (Cyclop. Pract. Med. Art. Scarlatina.)

A much rarer complication than the preceding is the sudden occurrence of rapid gangrene of the mouth involving the soft structures of the cheek. This unusual and very frequently fatal complication is liable to supervene in young scrofulous or otherwise debilitated constitutions, towards the latter end of the fever, which, in such a case, exhibits the marked typhoid character. I here give the progress of the local affection as I observed in a little girl, æt. 10, of a feeble constitution, who contracted scarlatina anginosa which merged on the 4th day into a malignant type. When visiting her on the morning of the 6th day I found that hæmorrhage had taken place from the mouth, the blood adhering very firmly to the teeth and lips. On looking into the mouth I observed a dark slough of the mucous membrane lining the left cheek. On the 7th day the slough had enlarged and deepened into the soft structure of the cheek which was now swollen and presented a pale shining, glassy aspect. A small livid speck or tubercle also shewed itself on the surface of the face, exactly corresponding to the internal slough. On attempting to detach the latter it separated into shreds, being adherent to the sound textures. It had an exceedingly fetid odour. By the evening, the livid speck observed in the morning, had enlarged to the size of a four-penny piece. It presented a dark ash-gray surface—depressed beneath the level of the surrounding skin. Its margin was circular, well-defined, and not surrounded by any red or inflammatory appearance. On the following day the gangrenous mass had spread to the size of a two shilling piece, depressed in the centre,

shrivelled and still retaining its circular form. The cheek was enormously swollen and highly glazed in appearance.

This was a striking case of rapid destruction of tissue by gangrene, which, to all appearance, was not preceded nor accompanied by the ordinary inflammatory process. Although prompt measures were employed to arrest its progress, they were of little avail. The local disease spread with astonishing rapidity; a great portion of the cheek became a mass of gangrene and the child died on the 9th day.

The *kidneys* are, above all organs, the most liable to become the seat of much disturbance both during the existence of the fever and during the period of convalescence. Throughout the whole or during a period only of some epidemics, there is a marked tendency to grave renal disorder and so prominent does this tendency appear as to mark the character of the epidemic, that not a few writers who have witnessed it, have described *Scarlatina Renum* as a distinct variety of Scarlet Fever. Questioning the propriety of adopting a title so distinctive, the importance and comparative frequency, in some epidemics, of serious renal disease cannot be denied and should direct the physician to bestow particular attention to the condition of the kidneys and the secretion of urine.

If the urine be examined frequently in Scarlet Fever, its ordinary conditions will be found to vary little from the urine observed in continued fever about the same periods of the disease. There is one essential peculiarity, however, indicated in scarlatinal disease, namely, the frequency of *Albuminuria*—the elimination of albumen from the blood by the kidneys. Judging from the many examinations made of the urine of scarlatinal patients, I have noticed it a rare exception to find no albumen eliminated by the kidneys during the progress of the fever. The amount was generally small, but enough to indicate its presence by heat and nitric acid—heat causing a haziness or feeble coagulability of the urine, while nitric acid precipitated the albumen in the form of flakes or of pulpy matter at the bottom of the tube.

The secretion of albumen *alone* is far from indicating a diseased condition of the kidneys themselves. These organs have frequently been found quite healthy, altho' albumen has been observed in the urine—even for some time before death. In such cases we must, therefore, consider simple albuminuria to depend upon a temporary disorder of the renal functions—the result of some pathological condition of the blood. This idea may be also borne out by the circumstance that urea, a normal constituent, is almost invariably found in deficient quantity in the urine of such cases of scarlatinal albuminuria. This by no means warrants us to believe in the opinion of Solon and others that albumen is

formed by transformation at the expense of Urea, nor are the two vicarious of one another, since Dr. Christison has observed in relation to Bright's disease, that when the urine was deprived of the greater part of its urea the quantity of albumen contained in it was small and on the other hand, in cases where the urea was considerable in quantity, the albumen also was plentiful; coincident also with albuminous urine, the blood has been found to contain a considerable quantity of urea

But the morbid elimination of albumen, combined with other products in the urine of scarlatina patients, is indicative of important organic changes in the renal organs. Thus, during the primary fever and more especially towards the latter end of the eruptive stage of *S. Anginosa*, the kidneys are very liable to become congested and inflamed—the degree of inflammatory affection bearing some relation to the severity of the fever existing at the time, although by no means invariably so. The circumstances to be relied upon as indicating acute renal disease are scantiness and turbidity of the urine, the detection of albumen by chemical tests, and of numerous tube-casts of the kidney with a multitude of epithelium scales, by the microscope. These fibrinous casts are seen moulded according to the shape and size of the tubulæ uriniferæ, some firm and perfect, others broken down and irregular.

The supervention of kidney disease is sooner or later followed by dropsical effusion either into the subcutaneous cellular tissue or into some internal serous cavity or both; of this we shall merely observe that notwithstanding the general opinion that scarlatinal anasarca belongs to the class of febrile dropsies, we are much inclined to look upon it as a distinct form of *acute renal* dropsy; that is both secondary to, and essentially dependent upon the renal disease; for there is generally, if not invariably, observed a well-marked connexion between the inflammatory disease of the kidneys and the subsequent dropsical effusion: and again, careful examination of the body in many fatal cases, where the serous cavities are found full of clear fluid, cannot detect any of the unmistakeable products of inflammatory action. The accumulation must, in such cases, be considered as a mere infiltration or passive elimination, from the blood, of fluid, which is deprived of much of its albumen and consequently diminished in density.

Although the disease of the kidneys in scarlatina is manageable in the milder cases, it sometimes proves a very troublesome and obstinate affection to deal with—nay more, its ultimate consequences may be formidable for there is every reason to believe that it occasionally lays the

foundation, of more serious and permanent disease of the kidneys. Regarding this point, I cannot do better than quote the observations of Dr. Watson on "Dropsy following Scarlet Fever"—"It is an interesting fact," he remarks, "that the chronic form of renal dropsy manifesting itself at some distance of time, has been distinctly traced back to its source in the acute anasarca immediately consequent upon scarlet fever. The sequence has occurred, in all probability, much oftner than it has been noticed. There is scarcely room for doubting that one form —the granular or inflammatory form—of the organic renal degeneration described by Dr. Bright, does frequently date its origin from an attack of febrile anasarca; and in proportion as facts accurately observed, accumulate on this subject, the chain of connection becomes more clearly visible between acute febrile dropsy, dropsy succeeding scarlet fever and chronic renal dropsy."

Allow me to conclude this but imperfectly written paper, by drawing the attention of your readers to a subject which has only lately been brought before the profession—I mean *Scarlatinal Vaginitis*. The exanthematous inflammation sometimes extends to the mucous membrane of the Vagina, giving rise to an abundant discharge of muco-purulent matter, which in some cases is so acrid as to excoriate the labia, thighs, &c., and prove a source of great suffering and discomfort. Since attention has been directed to the frequent occurrence of Scarlatinal Vaginitis by Dr. Cormack, (*Medical Gazette*, August, 1850,) I have observed four cases in children under 10 years of age affected with *S. Anginosa*, where this local affection was characterized by great heat and swelling in the parts, acute pain on micturition, and constant and copious discharge of yellow muco-purulent matter, accompanied by excoriation of thighs, &c. They all recovered under appropriate measures. It is important that the disease be always attended to, as the uneasiness and suffering it occasions are great at the time. In the epidemic of Scarlet Fever in 1848-49, Dr Cormack relates that out of 23 female patients, all of whom were cleanly, well-nursed, and in a respectable social position, 12 of the number had well-marked Vaginitis. All were under 14 years of age, with the exception of two who were respectively 26 and 28 and both married. These two were attacked with acute Vaginitis much more severe than any of the children, and one, who was pregnant aborted.

Montreal, June 16, 1855.

ART. VII.—*Case of Punctured Wound of Anterior Lobe of Brain*—through the Orbital Plate of Frontal Bone—Successfully treated. By JAMES ALEX. GRANT, M.D., Ottawa City.

J. H. æt 22, laborer, came under my charge on the 15th April, in consequence of the following injury:—While viewing the circular saws in operation in the Mill of Messrs. Currier & Dickinson, Ottawa, an edging was suddenly thrown from one of the circular saws which struck him midway between the internal angular process of frontal bone and the inner side of the globe of eye, penetrating a distance of three inches, obliquely upwards and outwards.

On inspection of the wound, a few moments after the receipt of injury, found a small portion of brain in the orifice of entrance; conclusive evidence that the wound extended through the orbital plate of frontal bone, and membranes of brain into the cerebral substance. After probing the wound carefully, three small pieces of wood, each an inch in length and several lines in thickness, were removed; slight hemorrhage from wound. All foreign bodies being extracted, applied cold water dressing.

State of Eye.—Globe protruded several lines more than opposite eye, extensive ecchymosis of the conjunctival surface of eye, effusion of a small quantity of blood into the anterior chamber, and amaurotic condition of the organ. Here the amaurosis may have resulted either from the concussion of the retina or injury of supra orbital branch of fifth pair of cranial nerves, as both had evidently taken place. Reaction being established, ordered four leeches to right temple, head shaved, and ice water continuously applied, also ℞ Ol Ricini ℥j., Oil Tiglii gtti., to be taken immediately.

16th.—Has passed a very restless night, pulse 100 full; had a copious evacuation from the bowels; tongue slightly furred, skin hot; distressing pain in head, particularly over right orbit. Leeches repeated to temple, and twenty ounces of blood were taken from the arm; these rendered him faint, and somewhat relieved the pain in head. Ordered two grains of calomel every four hours.

17th.—Has slept little during the night; slight delirium, and a disposition to walk about; tongue dry, pulse 96 full and more compressible; passes his urine freely. Continue the calomel every six hours; cold to head and eye as formerly, and low diet.

18th.—Has passed a quiet, though sleepless night; has a constant desire for cold drinks.

19th.—Has had a much better night than expected; mercurial fetor of breath; tongue moist, skin not so hot; constant pain in head abating in severity at intervals. Ordered an enema: leeches to right temple, and ℞ Hydrarg Chloridi gr. ij. every six hours.

20th.—Has slept more than previous night; skin cold; pulse less frequent, full, and compressible; tongue moist. A fresh pledget of lint was applied over the wound in lid and retained in situ by adhesive straps; continue treatment.

21st.—Rested several hours during the night; still complains of pain in head; soreness of gums and mouth; skin moist and cool; tongue not so much furred. Discontinue Calomel; ordered blister to right temple, also the following mixture:—℞ Ant. Tart. gr. ij., Mag. Sulph. ʒ iij, Tinct. Lavd Co ʒiij., Aquæ ʒ v ij. A table spoonful to be taken every four hours.

22nd.—Pain in head slightly abated; has had several passages in his bowels, and feels much improved. Continue mixture.

23rd.—Passed a good night; pulse much reduced in volume; feels more inclined to answer questions; still not perfectly conscious of what has transpired; occasionally sings during sleep. Swelling of lid much reduced; wound tending to cicatrise. To continue cold to head and mixture.

24th.—Progressing satisfactorily; says he feels much better.

25th.—Has had a slight rigor; increased thirst; restless during the night; inclined to leave his bed; bowels freely opened. Continue mixture every six hours, blister to nape of neck.

26th.—No rigor since last night; rested better.

28th.—Continues improving daily; allowed a small quantity of chicken broth.

May 1st.—He sat up and experienced a decided change for the better. During the period elapsed, from day of accident to present date, he has labored under slight mental aberration; talks of affairs disconnectedly; impairment of memory; still he almost immediately recognises any person previously seen.

2nd.—Rests well at night; pain in head almost entirely gone; wound in lid closed; globe parallel with that of opposite eye; inability to elevate the lid; chemosis of lid much reduced; entire loss of vision in injured eye.

6th.—Going on satisfactorily; able to walk about the house and enjoy food with some relish. During all this period active antiphlogistic treatment has not been lost sight of.

10th.—Continues improving daily; pulse perfectly regular; rests well at night.

After this period nothing of consequence transpired, and on the 16th May I considered him convalescent. His memory improves slowly. Dimensions of stick: thickness, half an inch; breadth, $\frac{3}{4}$ of an inch; length of piece entering, three inches.

Ottawa City, May 28, 1855.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

IV.—*The ear in health and disease with practical remarks on the prevention and treatment of deafness.* Illustrated by many fine wood engravings. By Wm. Harvey, F. R. C. S., Surgeon to the Royal Dispensary for diseases of the ear. London, Henry Renshaw, 1854, pp. 236. From the author through Dr. Gibb of London.

The first 15 pages of this work contain an anatomical account of the ear and the remainder is devoted to the pathology of this organ with the treatment of its diseases. The description of the first portion is simplified of much of its complexity and still rendered sufficiently minute for practical purposes. It seems to us a great mistake, into which writers too often fall, of taking up a disproportionately large share of their productions with subjects of minor importance or with those holding a secondary place. This generally leads to the exclusion of a large amount of useful matter from the after parts and which from the title of the work we are led to look for, the author has therefore in the present instance, by his moderation, exhibited a better taste and more acute discernment than many others who have gone before him into the arena of literary distinction. The arrangement of the remainder is also very appropriate—and the diseases of the different compartments of the organ of hearing are considered consecutively in proper order—those of a general character beginning and those of a more circumscribed following:—Commencing with deafness, the affections of the auricle are entered upon, then succeed those of the meatus, tympanum, middle ear, and labyrinth, and lastly a chapter is devoted to deaf mutism.

The first symptom of deafness separately mentioned is tinnitus—this, however, often exists as an affection per se and is frequently noticed when hearing is perfect. The author in alluding to the contrariety of opinion as to its cause, says, that recent observation proves that it is generally induced by a species of hyperœsthesia or morbid irritability of the auditory nerve. We have no doubt in our mind that this explains its presence in many cases but we also feel that it is inadequate to account for some others which, though perhaps less frequent, are yet as important to know as the former. Without entering upon a thorough survey of the varieties of tinnitus, we may observe that *two* have occurred to us that are not commonly recognized. We are not insisting so much upon any difference in the character of the disorder as upon its proximate cause or *nature*, for it would seem here as in other cases that the same features are presented by dissimilar agencies. Tinnitus, as understood by Dr. H, is really an illusion, for a sound is heard when there is no material cause for its production—it proceeds from an error of innervation in the absence of the usual operation by which sound emanates and is communicated. So that, if, as is admitted, organs that have never received impressions can at no time become the seats of illusions based on those impressions; as for instance those born blind can never apprehend optical illusions—so that if this postulate be true, tinnitus, as described by Mr. H. could never afflict the person deaf from his birth. But it is not so with the forms we think we have recognized; in these no such exemption would be entailed, and the cause of sound is *bona fide* present and obviously material.

In the first form the Tinnitus consists of a confused humming sound, or resembles the first sound of the heart exaggerated, considerably protracted—it is continuous for the time it lasts, but is not of long persistence, and in its occurrence may be either occasional or more repeated and assume a more or less distinctly paroxysmal condition. We refer it to a spasmodic state of the muscles of the tympanum, in consequence of which the tensor membranæ tympani changes the tension of the membrana tympani alternately increasing and diminishing it—and to the musculus stapedius which exerts the same change on the membrane of the fenestra ovalis—a secondary result also produced by this spasmodic action is to alter the relative position to each other of the chain of bones that stretches between these membranes: now in these three actions, the muscular contraction, membranous tension and osseous transpositions we believe, will be found the causes of the Tinnitus we are describing —and this view derives the more probability from the identity it establishes between the agency of the tinnitus and that of the sound to which we have already likened it. The first cardiac sound is part-

ly due to the contraction of the ventricles, and hence we recognize in it the *bruit musculaire*, but it is also due to the tension of the auriculo ventricular valves during their closure and to the prolongation of the note thus caused by the chordæ tendinæ which, like their diminutives the ossicles, are subtended between two moveable surfaces, the valve and heart wall.

In the second form we have learned from the patient that he feels in his ear a constant ticking which, upon a closer scrutiny, has turned out to be a pulsatory sensation, occurring regularly for a considerable period with equable intermissions, and being synchronous with the beats of the heart, or of the radial artery at the wrist. Indeed, so correct an indicator of the rate of the circulation has it proved, that he has, by counting the ticks, judged as correctly of the rate of his own circulation as a Physician has done by the more ordinary method. This tinnitus may readily be distinguished from every other, and, for convenience sake, may be called provisionally, at least, the *pulsatile*. Its character, we believe, would suggest that it was in some manner more or less directly connected with the internal carotid artery, or rather with the part of the vessel winding through the carotid canal, and in close proximity to the internal ear. The exact abnormality that may exist in such cases cannot be predicted during life, we may, at most, form but an approximation of the truth. It is possible that the blood of such patients may be in a watery or spanæmic state, and a species of *bruit de souffle* produced in the part which is heard by the patient; or perhaps some extra-vascular pressure may exist such as the impaction of fibrinous exudation or serous effusion between the wall of the bony canal and that of the elastic vessel. Be the real cause, however, what it may, these to us seem the most probable. They are not, however, exactly convertible cases, for it is worth remarking that the pulsatile tinnitus dependent upon poverty of the blood would be heard in both ears, while that resulting from compression of the vessel would be confined to one side. The first case of pulsatile tinnitus we ever met with was one sided, and was remarkable in being associated with paralysis of the muscles, supplied by the facial nerve on the corresponding side of the face. The case appeared to have had an inflammatory origin, and yielded rapidly to mercury pushed to salivation, and succeeded by Iodid Potass; rendering it evident that some vascular product had been thrown out in the *trajet* of the facial nerve,—and which, we think, the anatomical relations will shew to be feasible,—involved the carotid by extension. There, certainly, was no more general cause of morbid action; for the palsy was perfectly local, and unaccompanied by a single mark of other cerebral or spinal disturbance.

The remarks just made are not to be construed unfavorably toward the work of Dr. H.; so far from we ourselves judging it by them, we have pleasure in recording our deep sense of the merits of his writings. We have looked through them with feelings of gratification, and have come to the conclusion that they afford, for their extent, more information on the subjects that they treat of than any other with which we are familiar, and, for ordinary purposes, the practitioner or student will find in them every essential they can require. We strongly recommend our friends, the American publishers, to bring out a copy as early as possible.

V.—*Surgical Reports and miscellaneous Papers, on Medical Subjects.* By GEO. HAYWARD, M. D., President of the Massachusetts Medical Society; Fellow of the American Academy of Arts and Sciences; late Professor of Surgery in Harvard University, and one of the Consulting Surgeons of the Massachusetts General Hospital, pp. 452. Boston: Philips, Sampson and Co. Montreal: B. Dawson.

To one who has fulfilled well all the relative duties of life, retrospection cannot be other than an agreeable occupation. When a Physician has arrived at the "sere and yellow leaf" period of his existence, happy is he beyond computation, if with sincerity he can say, "I have faithfully performed my duty to my God—my patients and my profession;" and we envy not the feelings of him, who, in looking back on a spent life, cannot point to a single act performed with a view to advance the profession of which he is a member.

Dr. Hayward has collected into one volume the papers which, at different periods during a long and honorable career, were published for the information of his professional brethren. "They are now collected from a belief that some of them would be useful from the facts and tables they contain, and in the hope that all might be read with advantage by students and the younger members of the profession. It was even thought that they would perhaps be occasionally consulted by those somewhat advanced in practice, whose time was too much occupied to allow an examination of more extended works on the subject of which they treat. At any rate their revision and arrangement for the press have enabled me to review a professional life of forty years' continuance, and thus furnished an agreeable occupation at a time when I did not feel capable of much mental effort."—(*Preface.*)

The chapter on statistics of the amputations of large limbs that have

been performed at the Massachusetts General Hospital from its establishment to Jan 5th, 1850, is one of some importance. There were up to Jan. 5th, 1850, 69 cases of amputation of the Thigh. Of these only 19 died, the mortality per cent being 27. Up to the same period there were 51 cases of amputation of the Leg, of which 10 died, the mortality being 30 per cent. Of the arm and fore-arm there were 23 amputations, 3 of which, or 13 per cent terminated fatally. These results contrast most favorably with those given by French and English writers. Malgaigne's statistics from the Parisian Hospitals shew the following:—Thigh amputations for injury 66; died 34; mortality per cent 75. Leg amputations 79; died 50; mortality per cent 62. Arm amputations 30; died 17; mortality per cent 52. Amputations for disease exhibit a per centage of mortality less then those for injury: -Thigh 60;,Leg 50, and Arm 10 per cent. Erichsen's statistics from the University College Hospital, London, shew the following mortality per cent in amputations performed for injury:—Thigh 58; Leg and Ankle 14, Arm and Shoulder 16⅓ Amputations for disease:—Thigh 20½; Leg and Ankle 18; Arm 30⅓.

The chapters on "Professional Trials of the Young Physician;" and "Duties of the Medical Profession," will well repay perusal, as they contain matter alike interesting and instructive to the practitioner.

The work is brought out in good style by Messrs. Philips, Sampson & Co.

VI.—*On the Chemical Analysis of the Tennessee Collection of Urinary Calculi.* By E. B. Haskins, M.D. pp. 24.

Dr. Haskins has given in the above pamphlet the qualitative analysis of one hundred and eighty-eight urinary calculi, the number forming the Tennessee collection. Of these Prof. Eve, one of the editors of our talented contemporary, the *Nashville Journal of Medicine*, has contributed 115. The largest calculus in the collection weighs 1,027 grains. The aggregate weight is 16,029 grains, and the average 91 grains. Contrary to what is found to obtain in European countries, uric acid calculi is extremely rare. Out of the number analysed, four only contained uric acid as a predominent constituent; whilst it was found in a free state but sixteen times.

We cannot offer a reason why, but certain it is, that urinary calculus is comparatively a rare affection in Canada. Surgeons, even in extensive practice, seldom have an opportunity of performing the operation of Lithotomy. Dr. Robert Nelson, while in Montreal, probably performed

more operations for stone than any other single individual in the Province. His reputation stood high as a lithotomist, and cases were not only sought out by him, but were also brought to him from different parts of the country to be operated upon. Where his collection is we know not.

VII. *An Outline of Medical Chemistry*, for the Use of students. By B. H. Rand, A.M., M.D., Professor of Chemistry in the Philadelphia College of Medicine, &c. Philadelphia: Lindsay & Blakiston, 1855. pp, 259.

The above addition to works on Chemistry has lately been issued from the press by Messrs. Lindsay & Blakiston, and forms one of the useful class of original productions with which, from time to time, these liberal and enterprising gentlemen favor the profession. It consists of three parts, which are allotted to principles of Chemistry, Inorganic Chemistry and to Organic Chemistry. In each is a condensed account of the different topics that fall under discussion, and we have to express our approbation of the ingenuity and skill it displays. We believe the student will find in Rand's Medical Chemistry a summary of the chief points usually expected from him in examinations, and be very thankful to the author for the simple, lucid manner in which they are considered, as well as the easy, comprehensive language in which they are worded. The book is cheap, and a few shillings cannot be better laid out than in its purchase.

CLINICAL LECTURE.

(*From Medical Circular.*)

On Ankylosis and excision of the Knee-joint.—By John Erichsen, Esq. F.R.C.S., Professor of Surgery, University College, and Surgeon to University College Hospital.

Gentlemen,—We had a case of excision of the knee-joint last Wednesday, upon which I propose to make some remarks, but before doing so I shall make a few observations upon a case of ankylosis of the knee-joint, which will be brought into the theatre in a few minutes. When the knee-joint is inflamed, if the disease proceeds to such an extent to destroy the cartilages, either an operation becomes necessary, to save the patient's life by amputation or excision; or, we must try and save

ankylosis to take place. Inflammation going on to suppuration and destruction of the cartilages, either removal of the limb or ankylosis must be effected. For a limb to be useful, it must become stiffened in a straight not a bent position. With a bent limb, a patient is worse off than if he had no limb at all, the limb is always in the way, and it is looked upon as a disgrace to the surgeon who leaves it in this condition. The case under consideration is one of this kind, which came under my notice some months ago, but as the patient was in an advanced state of pregnancy at the time, I deferred straightening it until after confinement, and as soon as this was over, we would then adopt some means to straighten it. It is now some months after her labour, and she comes with her knee much bent, in a state of partial ankylosis. Ankylosis you may have either complete with bony union, or incomplete without. If it is bony and the limb in a faulty position, you must either amputate the limb, or saw through the bones and straighten it. We had a case six weeks ago in the Hospital, of a girl aged twelve years, with a limb in this faulty position, which has existed since she was a year old. The limb was shortened and much atrophied, and would have been perfectly useless even if straightened, and amputation was consequently performed. The muscles of the leg were found in an atrophied condition, whilst those of the thigh were in a state of fatty degeneration, the ends of the bones were firmly ankylosed, but in a state of caries in particular spots. I saw all treatment except by amputation would have been useless. If there is bony ankylosis of the knee, with a good limb otherwise, there is a plan of treatment recommended by Dr Rhea Barton, of America, which may be adopted, which is to take out a wedge-shaped piece of bone, to permit of straightening the limb, instead of the bent position. In the case you will now see, the joint is slightly moveable, the ankylosis incomplete, and the limb is not shortened, and we shall endeavour to straighten it. (The patient an elderly woman, was here brought in, under the influence of chloroform, and was laid upon the operating table; the right leg was then seized by Mr Erichsen; it was in a semiflexed position from ankylosis, and was forcibly straightened, and then put upon a splint, and she was removed.) As I am straightening the limb, Gentlemen, you may hear the structures within the joint tearing down, the limb shall be put up in a splint, and I expect we shall have little trouble with it. We have lately had a case of bony ankylosis up stairs in a girl, whose leg was amputated, as I already have mentioned; a recent case of rheumatic disease with incomplete ankylosis, under Dr Garrod, where straightening was done; the case you have just seen straightened; and lastly the case of excision of the knee-joint—an interesting group of four cases of afflicted knee-joints. When the splint has been on for some time, in the case just operated on, we will take it off, and allow her to move about, and doubtless she will do well; we do not want a perfectly straight position here.

The case to which I wish to direct your special attention to-day, however, is one of excision of the knee-joint, of which I will narrate the details. It is that of a boy, Patrick Gorman, aged 14 years, whose parents are alive and in good health. Six years ago, when running, he fell and hurt his knee, which was followed in a week after by inflammation and swelling; considerable swelling remained with more or less disease of

the joint since that time, numerous abscesses formed, opened, and healed, and the joint became in a sufficiently satisfactory state, allowing him to go about till last December, when, in consequence of some injury, it became inflamed again, and he had exacerbations of his disease up to the period of his admission on April 20. When admitted it was swollen and inflamed; it was much larger than its fellow, being two inches larger in circumference; on examining it we found an abscess on the outer side of the joint, which I opened; at the time, before doing so, however, I stated that I was not sure whether it communicated with the joint or not, as a probe did not pass into the joint. The joint was very moveable, the ligaments were relaxed, and the condyles of the femur slipped to and fro over the tibia; there was no pain on doing this, or pushing the foot upwards or on striking the heel; none on bending it at a moderate degree, but if at an acute angle the pain was then very severe. He had sweating, flushings, fever, and the ordinary symptoms of hectic. The first thing to ascertain was the state of the joint. I mentioned to you that there was disease of the ligaments and the synovial membrane of the joint, and the reason of my opinion was, that the ligaments were so loose, permitting of the movements of the joint, as already described, and there was a good deal of doughy swelling around it, which is so characteristic of this form of disease, and which has been so well described by Sir Benjamin Brodie. If the cartilages had been much diseased we should have had pain on pressing the surfaces together, or on rubbing them against each other. My opinion then was that there was disease of the joint situated in the ligaments, cartilages, and synovial membrane. What course was now to be adopted? Six years had been spent in treatment without success, the boy's health was wearing out, the irritation still existed, he was getting hectic and intercurrent fever, and would have died in a few months. Two courses presented themselves, amputation and excision. I was rather disposed to amputate, as he looked strumous, he was suffering from hectic, and if strumous it might redevelope itself after the excision, and he might not be able to bear up after excision also, from the exhausting nature of the disease. For these reasons I preferred amputation, but the parents refused their consent, and wanted the other operation. They refused to allow amputation, people in poorer ranks of life dislike the maiming, and will put up with almost anything else rather than lose a limb. Under these circumstances I thought it best to excise the joint. A few words now on the excision of the knee-joint, but I shall not specially enter into it. It is not so modern an operation as has been supposed. It was practised in 1784 by Mr. Park, of Liverpool, in three cases with success. In 1830 Mr. Syme renewed it, but he now does not perform it, judging from his recent writings. About 1850, I believe Mr. Fergusson again renewed it, and since then three and thirty times it has been done, including four times in this hospital. A few words about the manner of performing the operation: It may be done in different ways, but there are three that I shall notice; the first an H shaped incision, two on either side of the patella, with a connecting transverse incision below the patella. The whole joint is thus well exposed. Another method is the elliptical, which I have always practised; and a third, introduced by Mr. Jones, of Jersey,

consisting of two incisions, one on either side, but without the transverse incision; the patella and ligaments are dissected off, and pushed on one side; by this operation you save the ligamentum patellæ, which some operators think of importance. I prefer the second, you get a better view of the joint; the saving of the ligamentum patellæ is not of so much importance as imagined, you get all the structures bound down in the course of healing, and all the parts are consolidated. What parts of importance have you about the joint? The popliteal vessels and nerves. You divide the ligaments in this operation, and the state of the parts, whether the articular surface of the bones are diseased, and also the cartilages, synovial membranes, and other soft structures of the joint. You next proceed to excise the diseased parts. You saw off the diseased articular surfaces, the lower end of the femur first to the extent of an inch or an inch and a half; you next bend the joint forcibly, and either clear the head of the tibia or remove a mere slice with the saw which in general is sufficient. The lower end of the femur is more diseased than the tibia, at least I have found it so. In the tibia the encrusting cartilage occupies a flat surface, in the femur it extends over the irregular condyles. Having removed these, you look to the state of the patella. In the earlier operations the patella was removed, but it was found inconvenient; if, however, it is not diseased, it is as well to leave it, as it tends materially to strengthen the joint. You next approximate the ends of the bones and shave off the flap, to suit the articulation; you put the limb in a slight splint, and use light dressing for a few days, and ultimately, if everything goes on well, you get ankylosis of the joint.

I shall now say a few words as to the operation itself. The object is to save the sound parts of the limb at the expense of the diseased, to save the foot and leg. If too much disease exists however, or if the leg and foot are atrophied, it will be of no avail; if there is a chance of leaving a tolerable limb you may have recourse to excision. There are two points of considerable importance, which perhaps have not been dwelt upon as fully as they deserve. The first is, what is the mortality as compared with amputation of the thigh—the comparative rate of mortality of amputation of the thigh with that of excision? Your alternative is always between amputation and excision, and hence, in dealing with the general question of excision, you inquire what is the mortality from each. If we look at the statistics so far as they go, the operation has been done 33 times (from Mr. Butcher's excellent paper 31 times.) Out of the 33, 27 have recovered, or are in a fair way of recovery, and only five deaths have occurred out of that number. Five out of 33 is a tolerably successful result, being 1 in 6½ cases. What is that compared with amputation for disease? Malgaigne states in 153 cases of amputation for disease 92 died, equal to 60 per cent. In this hospital I collected the statistics of amputation of the thigh for disease, out of 34 cases, nearly the same number as the joints, there were seven deaths; seven deaths against five from excision of knee-joint. Seven out of 34 cases is an extremely favourable rate of mortality, the balance lies in favour of excision; that is, it is less fatal than amputation of the thigh. Now the next question is, what is the result of the operation,—what condition do you leave the patient in? The result varies in different cases. Mr.

Butcher states that in his history of the 31 cases, that 17 out of the 31 were walking about, five had died, the remaining nine being still under treatment; 17 cures out of the 31 last August, were known then to be walking about. I have seen patients who were walking about, and it would have been impossible to suppose that they had been subjected to so severe an operation, or to ascertain what had been the matter; the limb was shortened two or three inches, and they were wearing a high-heeled shoe. Mr. Park's case of a sailor whom he operated upon was enabled to continue the same occupation without inconvenience.

If we look to the result, therefore, we shall find it is most satisfactory and encouraging, and we give the patient a chance of possessing a useful limb. For these reasons, then, I think excision of the knee-joint in certain cases is a perfectly proper and justifiable operation, and ought to be practised. There is one objection urged against it, the time occupied in the cure, such as six or eight months, or even longer, but this is more apparent than real, as for this length of time the patient need not be confined to bed; in two or three months a starch bandage and other treatment, may be employed, and crutches may be used. In amputation of the thigh it is always three or four and often five or six months before the patient can wear an artificial limb; if adjusted too soon the cicatrix will open and ulcerate occasionally, and the patient will have to lay up again. Excision of the knee-joint ought, then, to be practised in favorable cases, in those where there is a prospect of recovery, with the possession of a good constitution and other favourable circumstances.

THERAPEUTICAL RECORD.

(*Virginia Medical and Surgical Journal.*)

Bronchitis—Chronic.—The use of hydrochlorate of ammonia, in doses of fifteen or twenty grains, is highly spoken of by Dr. Delvaux (*Presse Med. Belge*) as a remedial agent in the treatment of chronic bronchitis. He precedes its administration with a purgative, and enjoins a strict diet during its continuance. Dr. Delvaux alleges that the cough will lessen and the dyspnœa become less, whilst the appetite improves. It causes an increased flow of urine, and also an augmentation of the cutaneous transpiration.

Enuresis.—It is very well to have at hand various formulæ for this troublesome affection in children; and we select the following, which we owe to the Gazette de Hopitaux:

Dr. Blaschka, of Freyenwalde, uses equal parts of tinct. nucis vomic. and tinct. ferri acet., of which 10 or 15 drops should be taken twice each evening.

Dr. Huber, of Zurich, recommends *ext. nucis vom.* 1 *part, oxyd. ferri nigri*, 48 *parts*, giving two grains night and morning.

Dr. Naegele gives one grain of *tannin* night and morning.

Ganglion.—To break what is commonly called a ganglion, and thus disperse the tumour which is often disfiguring to the wrist, and about which we are often consulted, it is only necessary to flex the wrist so as to make the skin tense; then let the surgeon seize the hand with both of his and place both the thumbs, one above the other, on the ganglion. It is rarely that such pressure does not succeed in its object, whereas the usual way of placing the thumbs side by side, by the law of the diffusion of presence in fluids, the two counteract each other, and there is great loss of force.

Glandular Enlargements.—An ointment of black oxide of copper is thought of great value by Prof. Hoppe, of Basle, (*Deutsche Klinik*) to discuss the various forms of glandular enlargements, so often occurring in practice. He has specially tested its virtues in indurations of the neck and of the salivary glands, goitres, and mammary enlargements.

Hydrocele.—Prof. Langenbeck, of Berlin, not being satisfied with the effects of the iodine tincture as an injection in hydrocele, has recently been employing chloroform as a substitute, with the happiest results. He finds that it produces adhesive inflammation more quickly and more surely than the old remedy. After withdrawing the fluid of hydrocele, he injects about one drachm of chloroform, which remains for a short time, and then is allowed to escape.

Porrigo.—This obstinate affection, often met with on the scalp in children, is attacked at Guy's Hospital with a prescription styled Unguentum Metallorum, and prepared by mixing equal parts of zinc ointment, of the dilute nitrate of mercury, and of the cerate of acetate of lead. It has been very efficacious in porrigo, impetigo, and even in favus.

Syphilis—Secondary.—M. Desmartis, of Bordeaux, declares that after a careful comparison of the effects produced by the different preparations of mercury, he has come to the conclusion that the cyanuret of mercury is of superior value, more especially in syphilis. He states that it never irritates or salivates, and where all the preparations of that metal had failed to produce benefit, that the cyanuret would restore to health, patients whose condition had seemed hopeless.

PERISCOPE.

New method of introducing medicines into the system, more especially applicable to painful local nervous affections.—Dr. Alexander Wood has been led to introduce solutions of morphia and Battley's sedative solution into the cellular tissue, as near as possible to the affected nerve, by means of the small perforating syringe, constructed by Mr. Ferguson of Giltspur street, for injecting aneurisms with perchloride of iron. Dr Wood narrated nine cases in which he had employed this method of treatment, in all with perfect safety, in some with complete, in others with partial success. As to the *modus operandi* of this method of treatment, he endeavored to show, from the experiments of Muller and others, that the

effect of the local application of opium to a nerve was to destroy its se sibility at the part, and that from this action of the drug the immedi cessation of the pain arose. He then pointed out the rapidity wi which absorption appeared to take place from the cellular tissue, whi seemed to account for the rapidity of the narcotic effect which a sm dose of opium so introduced was found to produce. He also poin out, that other medicines might be introduced in the same way.

Dr. W. T. Gairdner mentioned, that a patient in his wards in the ho pital, had been injected the other day in the way recommended by D Wood. The result was not decisive, as the complaint for which t man was under treatment, viz: lumbago, had been undergoing rap amendment, and, indeed, the day after the operation, was nearly goo The experiment, however, was attended with little suffering, and it w noted that some degree of giddiness was almost immediately produce —*Monthly Jour. Med. Science.—Stethoscope.*

An account of the good effects derived from the External Employment Tar Ointment, combined with Sulphur, in Cancerous Affection By William Macdonald, M.D., Lecturer on the practice of physi formerly lecturer on the theory of medicine in the Portland Street M dical School, Glasgow.—About twelve months ago, the late Mrs Dav Hogg, residing at No. 14 Sharp's lane, Glasgow, applied to me for dire tions relative to the restoration of her declining health. Her age was years. Her left mamma was affected with cancer, and was in the thir or suppurative stage of that malignant disease. She complained chronic cough, coupled with tension of the nerves of the forehead an occiput; and from the age of 45 years she had an indescribable feelin of being out of order, both in the chest and in the region of the mamm which was now affected. Of late years this disorder was supposed have been aggravated by the depressing effects of grief, brought on h by the sudden departure from this world of a near relative.

I recommended to her favourable consideration the immediate em ployment of an alterative course of Plummer's pills, coupled with t use of sarsaparilla, before an operation for the removal of the mamma w to have been performed. She cheerfully adopted the first portion of m advice—viz., the use of the alterative course aforesaid—but demurre at the operation, and it never was performed. After having receive the benefit of the advice of my medical friends for several months, s again called, and solicited some directions in place of the operation measure to which she was very averse.

At this period of her illness the mamma was twice the usual size, an the ulcerative process was not diminished, and, what was worse, th axilla was affected also with a large cancerous tumour. Of course a operation was out of the question in these critical circumstances.

In consequence of the salutary effects produced in many chronic ulce now under treatment by the employment of the common tar ointme of the London Pharmacopœia, with the addition only of washed sul limed sulphur, I have had no hesitation in making trial of its effects.

cases of cancer, similar to the case in question, and that with apparent success; accordingly the patient under consideration was ordered to apply the following ointment to the mamma every night at bed-time, and on every following morning to dust the ulcerous mamma with powdered chalk. The ointment is made as follows, viz: Take of tar, prepared suet, and washed sublimed sulphur, of each one ounce; melt them together in an earthen vessel, and express through linen.

This application was continued for four weeks, until the mamma became reduced to the natural size. A carrot poultice was then applied. The cancerous diseased structure, and its numerous roots, came away kindly along with the poultice; and the cure was finally accomplished by dusting the powdered chalk on the tender surface of the breast every third hour. At the end of seven weeks from the employment of the sulphur ointment and tar combined, as already stated, the mamma was completely well. Yet the cancerous tumour in the axilla remained; but the patient went about as usual, and for several months after this period in better health.

Several weeks ago Mrs H., was seized with febrile symptoms from some cause or other—the swollen cancerous gland of the axilla suppurated; general dropsy came on and her death took place a few days ago. From the sudden nature of the fatal attack and the severity of the febrile symptoms simple ointment alone was applied to the suppurating axilla, because the tar ointment combined with sulphur is stimulating in its action and is by necessary consequence only admissible in the chronic stage of the disorder, or in chronic ulcers generally.

There was no inspection of the body after death and it is therefore out of the question either to affirm or deny the presence or absence of internal cancer which obviously might end in producing the dropsy coupled with the other febrile symptoms which were observed before death, in this case.

Seeing the good effects of the tar ointment and sulphur externally in cancer, I have of late and by analogy been induced also to prescribe tar water internally exhibiting sulphur and supertartrate of potash internally also, and giving these remedies on alternate days in similar cancerous disorders and with marked benefit.

In these critical circumstances I have taken the liberty of soliciting in the meantime a measure of publicity to this case in the hope that other medical men might be enabled to benefit their patients on the same principles. Should this very desirable issue take place to suffering humanity under the ravages of cancer—one of the most dreadful and dangerous diseases (and in cases of it where operations are objected to), I shall be much gratified.—*Med. Circ.*

Pus in the Urine.—The presence of pus in the urine is of not unfrequent occurrence, and must generally be considered as a symptom of grave importance. The difficulties which so often attend the establishing of a correct diagnosis of its source, are too well known to the practitioner. And yet, without this, we can neither expect to render our patient any real service, nor ourselves any satisfaction.

I propose to offer a few practical suggestions, first, upon the general appearances which pus in the urine presents, and upon the means of detecting it: secondly, upon the means we possess of arriving at a knowledge of its source.

Urine which contains pus to any considerable amount, sufficient, for example, to form even a slight deposit, exhibits a certain degree of cloudiness, from the moment when it is passed. This fact will serve to distinguish it from urine containing urate of ammonia, a deposit of which resembles very much a deposit of pus. Urine containing urate of ammonia is generally bright and clear at the moment of micturition, and only becomes turbid on cooling. Purulent urine, after standing some time, throws down a deposit, the supernatant fluid being more or less clear according to circumstances, depending upon the length of time during which it has been left in repose, and upon the amount of pus present.

This deposit varies in its aspect. It may be uniform, of a pale yellowish-white color, of creamy consistence, a little shaggy on the surface, varying in thickness according to the amount, and easily diffused through the urine by slight agitation. This is the most common form of the purulent deposit, and if we submit it to a microscopic examination, we shall find an abundance of pus-corpuscles, with few or no other ingredients. The urine will be found to have an acid re-action.

Or, the deposit being of the same yellowish-white color, and the urine acid, we shall find it mixed with more or less mucus, rendering it slightly tenacious and somewhat slimy, and under the microscope we shall discover the pus-corpuscles adhering together.

Again, the deposit may be of a thick, viscid, ropy consistence, resembling what is termed glairy mucus—the urine being alkaline. This peculiar appearance is brought about by the decomposition of the pus, which acts upon the urine, rendering it alkaline, and this alkaline condition of the urine in turn re-acts upon the deposit, giving it the character just described. The same effect may be artificially produced by the addition of an alkali, liquor potassæ, for example to a purulent deposit. This decomposition of a purulent deposit takes place after it has been suffered to stand for some time. Recent observations have shown, that what has been considered as a deposit of glairy mucus, is but this decomposed pus, "and that mucus never assumes this particular form of a ropy sediment, which sinks to the bottom of the vessel; nor does it ever exist in the urine in such quantity as we frequently find this altered pus."—(Todd.)

I have remarked that purulent urine exhibited a certain degree of cloudiness from the moment of micturition, but this peculiarity, it must be remembered, may be also exhibited under other circumstances. Urine containing an excess of phosphates is not unfrequently cloudy when first passed, and even when clear at the time of micturition, after standing throws down a deposit much resembling one of pus. Yet, on closer examination, it will be found more flocculent and much lighter than pus, and of a whiter color. Phosphatic urine is almost always alkaline. The addition of an acid to phosphatic urine, instead of coagu-

lating it, as is the case with that containing pus, renders it clear. These are expeditious and reliable means of distinguishing the two.

A few words upon the coagulation which takes place in purulent urine on the application of heat and nitric acid. This coagulation is due to the albumen contained in the fluid, the *liquor puris*, in which the pus-corpuscles float, and the amount of coagulation is in direct proportion to the amount of pus present. This fact, viz., that purulent urine is always albuminous, should be borne in mind, since, no doubt, the coagulation produced by the re-agents just mentioned, when applied to urine containing pus, has too often led the inexperienced to suppose that the patient was necessarily suffering from Bright's disease.

Deposits of pus may be confounded with those of mucus—and yet with moderate care, they may be easily distinguished. In the first place, mucus rarely forms a layer or stratum at the bottom of the vessel, as does pus, neither is it easily diffusable through the fluid by agitation. Secondly, the urine containing mucus is alkaline, whereas purulent urine is almost always acid—or when it is alkaline, owing to decomposition, the purulent deposit exhibits the glairy appearance of mucus, and is under those circumstances most liable to be mistaken for it. In such a case, we must have recourse to acetic acid, in which mucus is soluble, and to the microscope, under which we shall not fail to find more or less epithelium, "and the so-called mucous particles, in small number, which doubtless are incipient pus-corpuscles." Thirdly, mucus does not contain albumen in a state to be coagulated by heat or nitric acid. If these simple facts are kept in mind, there need be scarcely any difficulty in distinguishing these deposits.

Pus being present in the urine, we are anxious to discover its source, a point in almost all cases attended with more or less difficulty, and in some perfectly impracticable. Pus may come from any portion of the mucous membrane of the genito-urinary organs—or it may come from some adjoining abscess which has opened into the urinary passages.

Pus from the kidneys may be the result of inflammation of the tubuli and pelvis of the kidney (pyelitis), of suppurative nephritis, and of other renal affections. Without going into detail upon the diagnostic symptoms of these affections, we can only remark that in a majority of cases the local symptoms are sufficiently well-marked, and point to the kidneys as the parts implicated—in many cases, moreover, our diagnosis being confirmed by the discovery under the microscope of "tubular casts" mixed with the purulent deposit. One very essential point must be remembered, viz., that the urine flows from the kidneys into the bladder acid, therefore if the urine which contains pus is found to have an acid re-action, particularly after long standing, we may be quite sure that the morbid admixture comes from the kidneys, particularly if we have the symptoms of renal disease present, or else from some abscess external to the urinary apparatus.

Pus from the bladder is almost always the result of inflammation of its lining membrane, which, however, under such conditions, pours out a vitiated mucous secretion, which seems to bring about a speedy decomposition of the urine—and certain changes in the purulent deposit, such

as I have already described. The urine enters the bladder from the kidney, acid, and becomes mixed with the secretions of the inflamed membrane; if these are not very abundant, the acid re-action continues even after micturition, but on standing a short time decomposition takes place, and the re-action is alkaline. This change may take place within the bladder, as is well known in cases of paraplegia from injured spine, or where there is any mechanical obstruction to the free discharge of the urine

Hence we may establish, as a general rule, that, when we find urine containing pus to be alkaline and to deposit ropy mucus, the bladder is the source; whereas pus in urine which has continued acid for many hours after standing, has come either from the kidneys or ureters, or from an abscess external to the urinary organs—a purulent discharge from the urethral canal being in most cases easily recognised.

The bursting of an abscess through the walls of the bladder, or into any other portion of the genito-urinary syste.. ay be recognised by the sudden appearance of the matter in the urine, and by the history of the case.—Boston Med. and Sur. Journal.

GERMAN.

Stoney Concretions in the Lungs.—Professor Forget, of Strasbourg, publishes a few cases of this singular affection; some of which terminated in the patient's recovery, in so called *Phthisis Calculosa.*

The inhalation of calcareous, sandy, metallic substances, &c., producing this Phthisis Calculosa, has been noticed by several writers and observers; but F. alludes to an entirely different condition, which the following cases will best illustrate:—

A colleague, of a seemingly strong constitution, but spare body, and nervous temperament, had for several months suffered from a severe, dry, distressing cough—following exposure to cold. He had frequent spittings of blood, and soon became waste and emaciated. The tone of voice, dullness and mucous *rales* in the subclavicular region, hectic fever, and so forth, led F. to believe that the patient was labering under pulmonary phthisis. The symptoms continued to become aggravated, until one day F. received a letter from his friend containing two concretions which he had a short time previously expectorated; they were osseous, of the size and form of the small bones of the ear. From that moment the cough, expectoration, and fever disappeared; strength returned, and thus continued the recovery, that after more than seven years, no trace of a chest affection can be detected in the now strong and robust colleague.

A girl of six-and-twenty, after long coughing, presented all the signs of the second stage of tubercle of the lungs. One night, after severe coughing, she expectorated a stone of an irregular form, about the size of a pea, and of the consistence of ivory. From that time the condition of the patient rapidly improved. The recovery could not be said to be complete when the person, pleased with her improvement, left the hospital.

A seamstress, æt 22, was admitted into hospital for Pleurodynia; a few days after she was seized with Variola, under which she succumbed. At the autopsy the lungs appeared *perfectly sound;* in the centre of the upper valve of the right, surrounded by perfectly healthy tissue, was found an osteoid formation, which weighed twenty centi-grammes.

From the observation of those three well-marked cases, the writer draws the following conclusions:—1. There are Stony concretions of the Lungs [*Lungen Stein*] which are primitive, *sui generis*, independent of tubercles, inhaled substances, &c. 2. These stones can be either solitary, or in very few numbers, distributed throughout the Lungs. 3. They can, occasionally, remain for a time latent in the Lung. 4. They occasion, or give rise to, symptoms resembling Phthisis Tuberculosa. 5. The Phthisis Calculosa Primitiva may be radically cured by expulsion of the stone, when solitary, or in few numbers. 6. The Phthisis Calculosa is, therefore, distinct from Phthisis Tuberculosa, and, as well by its anatomical character, as by its termination, is an entirely different disease.—*Medic Nenigk.*

Leucorrhœa often a protection.—In "der Monatsschrift fur Geburtskunde und Franen krankheiten," Dr Helfft, for the better understanding of uterine affections, observes:—"That when after cessation of catamenia leucorrhœa makes its appearance, it is not to be considered, as it generally is, a formidable affection of the uterus, and be treated as such; for far otherwise, he looks upon its discharge as exerting a protective influence against disturbance of the uterine system during the menstrual period. This vicarious secretion should in no manner be checked; except when a too copious discharge, of an offensive odour, and severe pain in the back, cause us to suspect ulceration of the cervix; in which case ocular inspection is necessary and warrantable. In ordinary cases diligent ablutions in warm water should be used, but injections under all circumstances are objectionable.—*Ibid.*

Secale Cornutum in Chronic Gonorrhœa.—Lazowski, observing the good resulting from the use of ergot in Paralysis of Bladder, was led to its employment in chronic gonorrhœa. He soon had an opportunity of trying it in a number of very intractable cases of gonorrhœa of long standing, with such results as to warrant his warmest recommendation. The manner in which he uses it is as follows:—

Secale cornut (recester pulverisat)	4 grammes
Croci martis . .	5½ do
Vaniglice et Camphor, trit aa	25 centigrammes

M Divide in doses æquales No. 20

Signa, one morning and evening

In chronic gonorrhœa in females it has been found of great service. The cure is generally effected in about 15 days (between 10 and 15.)—*Ibid.*

FRENCH.

De l'huile de Bouleau, comme moyens Curatif de L'eczema Chronique, par le docteur Blasius (de Halle.)—L'huile empyreumatique du betula alba employee sous le nom d'oleum rusci, a été recommandée par Heim contre le psoriasis. Suivant M. Blasius, son action dans l'eczema chronique est bien plus efficace; il s'en sert depuis quinze ans, et il en a toujours obtenu d'excellents résultats. Il lui serait facile, dit-il, de produire un nombre considérable de faits à l'appui de cette assertion, mais il trouve plus utile de tracer les règles de son emploi. Aussi longtemps que l'eczema est à l'état aigu, il convient de se borner aux adoucissants. Mais dès que l'affection est devenu chronique, il faut frictionner les parties malades avec de l'huile pure, les envelopper d'un linge de toile, et au bout de quelques jours, les laver dans de l'eau de savon, pour recommencer ensuite de nouvelles frictions huileuses. On continue ainsi, non-seulement jusqu'à ce qu'il ne se produise plus de vésicules et que tout suintement ait cesse, mais même jusqu'à ce que la peau ait repris sa couleur et son aspect normal. On peut employer ce médicament, soit dans les cas où la peau est sans cesse humectée par la sérosité qui s'échappe des parties affectées, soit, au contraire, quand la peau est sèche et couverte de croutes épaisses. Seulement, lorsque l'eczéma produit une douleur cuisante, une plus grande sensation de chaleur, de la tumefaction et une rougeur plus vive, ce qui annonce un retour à l'état aigu, on interrompt pendant un jour ou de l'huile de bouleau. Parmi les remèdes internes, l'auteur signale, comme les plus efficaces, le sulfure de chaux stibié (calcaria stibiato-sulphurata,) l'anthrakokali et le sulfure d'or. Il recommande de se procurer de bonne huile empyreumatique et d'éviter un mélange de goudre ou et d'huile empyreumatique (oleum animale fœtisdum) que les droguistes délivrent quelquefois au lieu d'huile de bouleau. La véritable huile de bouleau (oleum rusci) est connue dans le commerce sous le nom de dagged, et est apportée par des juifs de la Pologne ou de la Russie.—(Deutshe Klinik Gaz. med. de Paris.)

Brulure Traitee par le Collodion, par M. le docteur Goste.—Nous fumes appelé, le 3 aout dernier, pour voir un petit garçon d'environ huit mois, gras, frais bien portant, à qui sa bonne venait de laisser tomber sur le corps une tasse de lait presque bouilant. Ce liquide avait été répandu sur le thorax, l'abdomen et les cuisses.

Il y avait environ une heure de l'accident, lorsque j'arrivai pres de l'enfant. Ses cris étaient incessants et accusaient la plus vive douleur. Il ne pouvait tenir en place, et la roideur presque convulsive de ces membres, le tremblement de sa mâchoire, faisaient craindre un état encore plus grave.

Des phlyctènes existaient à la base de la poitrine, sur le bas-ventre sur la verge, le scrotum, la fesse et la cuisse droite dans une grande étendue. En attendant qu'on apportât le mélange que j'avais demandé de 30 grammes de collodion et de 6 grammes d'huile de ricin, j'évacuai avec soin la sérosité de phlyctènes et des vésicules, par des petites picures avec une aiguille déliée, et j'appliquai des compresses froides sur les parties atteintes.

Vaine ressource: l'enfant continuait à crier et a s'agiter. Bientôt on apporte le collodion: je l'etends à l'instant même avec le bouchon du flacon à large ouverture qui le contenait, sur toutes les parties brulées, et, bien que l'enfant ne cessât de crier; a messure que j'appliquais le remède, il semblait de moment en moment redoubler ses cris. L'épiderme avait éte enlevé de la plus large phlyctène auprés de l'ombilic, il en résulta une douleur plus atroce de l'application du remède. Je recouvris toutes les parties où etait étendu le collodion, de coton en rame qui adhéra parfaitement bien, et la peau se trouvait ainsi à l'abri du contact de l'air et des corps etrangers.

Deux ou trois minutes s'étaient à peine écoulees, que l'enfant commençait a se consoler: mais la douleur semblait revenir par acc s.

L'étendue de ces brulures, dont une partie atteignait le troisième dégré, l'irritabilité de l'enfant, son embonpoint, et l'injection capillaire de sa peau, me faisait craindre quelque accident. Je retournai le voir quatre heures après, et je fus agreablement surpris de le trouver gai et jouant sur les bras de sa bonne. Après deux ou trois jours, le coton se détacha des parties les moins atteintes, et le point de l'abdomen où je redoutais, une longue suppuration, n'en donna pas du tout; seulement, là, le coton ne tomba que plusieurs jours après.

On ne peut se faire une idée de la promptitude et de l'excellent effet du collodion dans la brulure. Nous ne saurions trop recommander ce moyen.—(Journ. de méd. de Bordeaux.)

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUERI.

REGISTRATION OF THE CAUSES OF DEATH.

The importance to a public community of a correct registration of the causes of every death occurring in their midst, cannot be too highly estimated. In England and Wales, where such registration has for many years been carried into successful operation, it is now admitted, that the information derived from this part of the Registrar General's returns, has materially forwarded the science of medicine, as well the interests of the public generally. It is sufficiently obvious that an exact return of the causes of death, taken in connection with the age, sex, profession or calling, and residence of the deceased, must throw a flood of light on the vital statistics of a country, exhibiting as it does, the prevalence of fatal diseases in various localities—the ages at which persons are most obnoxious to certain maladies—and the affections most

fatal to the different trades and professions. By analyzing accumulated knowledge of this kind, moreover, the medical statist becomes acquainted with the diseases endemic to the country, and, by employing his knowledge of the physical geography of localities, he may approximately determine the value of physical causes in their origination; he is enabled, also, to arrive at comparatively correct conclusions regarding the relative prevalence and mortality of the same disease at different places; and he can with facility trace the course and effects of epidemics. The politician and public hygeist find it equally serves their purposes. Legislative enactments, of great importance, have been framed and adopted by the Parliament of Great Britain, solely to obviate evils exposed by the columns in the Registrar's Report containing the causes of death. Hygiene and medical police have received an impetus and certainty of direction in England, which it would have been impossible for them to have experienced before the amendment act of Registration of 1 Vict., cap. 22, became law.

In volume 1 of the Census Report of the Canadas for 1851-2, we are told by Mr. Hutton that the whole of the causes of death have been taken in both provinces. The worthy Secretary of the Board of Registration and Statistics has not informed us for how long they have been registered. We know of no law, at present in force, making such registration obligatory; and unless systematic, general and uniform entries have been made throughout the Province, the returns are perfectly valueless, and cannot by any possibility further important ends. To make registration of the causes of death worthy the attention of the philosophic physician and public hygeist—to make it benefit alike the science of medicine and public hygiene, there is wanting, in the first place, *a law* which shall insist on the causes of every death occurring within the Province being duly recorded, and which shall provide for the proper enregistering of the same. Secondly, *a definite statistical nosology*, printed copies of which should be sent to every physician, coroner, and clergyman in the Province. Thirdly, *regular monthly returns*, from the various registers, should be forwarded to the Central Board of Registration.

The necessity for the second recommendation, a correct and uniform returns be desiderated, is aptly illustrated by the bills of mortality for the city of Montreal, which are being published weekly in our public prints. Early last Spring we interested ourselves very much to obtain for the public, returns of the number of deaths occurring in the city with the fatal diseases. We called on the Mayor, and on one of the most active of the members of the Health Committee, both of them

agreed with us in our view of the importance of such returns, and promised to get the Corporation, if possible, to take action in the matter. We waited patiently for the appearance of these reports, and at length our eyes were gratified by the publication of the first weekly "Bill of Mortality." A mere glance sufficed to satisfy us, that, as faithful returns of the diseases fatal to our fellow citizens, they were nothing more or less than a perfect farce. Anxious as we were to give them place in our pages, they were so glaringly imperfect, we concluded that we could not spare room for such utterly useless matter. Three of these "Weekly Bills" are now lying before us, and our readers will duly appreciate their character, from the following analysis in part. We may mention, that these three have been selected indiscriminately, that, in fact, *ex uno omnes disce*. During three weeks there occurred 167 deaths in the city of Montreal. Of these, 31 are reported as having died of INFANTILE DEBILITY. Could anything be more vague or uncertain than this? With few exceptions, diseases of children might be said to terminate in infantile debility. Fifteen are said to have died of *Fever*. What kind of Fever we would ask? Intermittent Fever—Remittent Fever—Common continued Fever—Relapsing Fever—Typhoid Fever or Typhus Fever? Four were cut off by *Inflammation*. Inflammation of what part? Five died of *Disease of the Heart*. Hope, one of the greatest authorities on Diseases of the heart, treats of these affections under twenty different heads. Fourteen children are reported as having died of *teething*. Now, although many children die during the process of teething, it is commonly from the supervention of secondary affections of the mucous membranes, and the nervous system. We might extend our remarks, but we have said enough to shew that returns on this system, or rather *no* system, are not worthy of space in a scientific journal. Our readers will not blame us, therefore, if we object to publish the "Bills of Mortality for the city of Montreal." We live in hope, however, that at some future period, not far distant, a correct and effective registration of the causes of death will be adopted throughout the Province, and, we have no doubt, from what we have heard of Mr. Hatton, that he would cheerfully carry it out.

Since writing the above, vol 2 of the Census Report has come to hand, from which we glean that the causes of death were taken by the Enumerators; these gentlemen having received their information in each case from friends of the deceased. As might be expected, the report is a very imperfect and worthless one. Notwithstanding the opinion of the Secretary to the contrary, there is not, in our opinion, one feature of interest in the returns—nor can one reliable deduction be drawn from

them. The time of the enumerators, the expenses of printing &c., have been, we consider, virtually thrown away. The total number of deaths enumerated in Upper Canada were 7775, in 5836 of which the causes of death were specified, whilst in the remaining 1939 they were not specified. In Lower Canada 11674 deaths were recorded, 6500 of which had the causes of death specified, and 5174 had not. Among those recorded we find 126 to have died of INFANCY! 258 of *teething*; 460 of *Inflammation*; 4 of INTERNAL SPRAIN; 14 of *Black Fever*; 89 of *Liver Complaint*; 55 of *Jaundice*; 28 of *Bowel Complaint*; 6 of *Internal Rupture*; and 12 of *Canker Rash*. What dependence can be placed on such returns?

THE UNITED AFRICAN TWINS.

It was our intention to have written a description of these interesting little strangers who were so lately among us, but having ascertained that a similar communication was prepared for the August number of the *Chronicle* by a well known *dilettante*, we preferred the account should come from his abler hands. It will be illustrated by 4 figures transferred to wood by an excellent artist from daguerreotype likenesses.

Without, however, anticipating our friend, we may remark that the United African Twins present exactly the same example of diplogenesis that was observed nearly a century and a half ago in two children born in Hungary, who were also females, and were familiarly known as the Hungarian Sisters, Judith and Helen, their description is given by Buffon, and reads as follows:—"These young women were entirely separated from each other, except the anus,* which was common to both, from which circumstance they simultaneously experienced the same desire of relieving nature; but in other respects, as in size, in temper, and in health, they differed, and, unfortunately, frequently quarrelled with each other. When in her 22nd year, Judith fell ill of fever, became lethargic, and died. Poor Helen was obliged to submit to her unhappy destiny; three minutes previous to the death of Judith she suddenly fell *in articulo mortis*, and expired nearly at the same moment. These twin sisters were born at a place called Tzoni, in Hungary, on the 16th October, 1701, and died in a Convent at St Petersburg, on the 23d February, 1723." A post mortem examination was held, at which the only peculiarity, beyond that known during life to have existed, was

*They must also, like the African twins, have had an inseparable union, by the fusion of the false vertebræ of each, so that between the two there was only a single back bone in common.

that the two had but one circulation between them; that the blood of each flowed into the other; for the great vessels of the abdomen were continuous in the two bodies; and were united at the loins. This latter fact has a remarkable bearing upon the theory of menstruation; although with but one circulation, the uterine functions were, nevertheless, distinct in both; menstruation differed in its period and also in the quantity of the discharge.

Lectures on Botany.—Our readers will perceive upon reference to our advertising pages, that arrangements are being made for the delivery of a course of lectures on Botany, which will be commenced about the 20th of next August. From the Prospectus shortly to be published it will be seen that they are to be of a very attractive character, embracing the principal facts connected with Vegetable Anatomy and Physiology.—We believe no exertions have been spared to render the course as useful and entertaining as it is possible to make it.—And from our acquaintance with the industry and talents of the gentleman, by whom the lectures are to be given, we feel certain that these objects will be attained, and in a manner that cannot but be highly satisfactory to his audience generally. Such students as may be in town during the time appointed, we would recommend to avail themselves of the opportunity thus presented.—By doing so, they will upon going to Great Britain, be enabled to present themselves, upon arrival, for examination before any of the licensing boards, without being remanded for further study—for the study of Botany. We believe also, that the College of Physicians and Surgeons, C. E., requires students to attend a course of Botany when it is obtainable; after this no plea can be offered for any deficiency upon this branch of Medical Science which its devotees concur in pronouncing to be both very delightful and highly instructive.

Quarantine Efficiency.—We understand that it is under the consideration of Government to send a gentleman to visit, and report upon, the Quarantine system in operation in the Northern and Eastern States of America. The information acquired to be applied to the improvement of the Grosse Isle establishment, which has now become publicly notorious for its practical inutility. We are glad to find the authorities determined to do what they can to remedy the deficiency, and hope they will observe some discrimination in the selection of a proper person

on this occasion, and at least appoint the right man in the right place *On dit* has it that Dr. Marsden, of Quebec, has been urged to accept the Commission. We know that a memorial was presented to the Government signed by the leading members of the profession in the Eastern Province, who, aware of Dr. M.'s fitness, and confident in his impartiality, had much pleasure in strongly recommending him for the office. We cannot see how so distinguished a mark of superiority can be slighted, and we trust before long we shall hear of Dr. M.'s actual appointment.

Montreal, June 22nd, 1855.

Messrs. the Editors of the Medical Chronicle,

Gentlemen,—Will you oblige us with an answer to the following question, for the information and guidance of Dispensing Chemits generally?

"When *Solut. Morph. Mur.* is ordered in a prescription without any particular formula being indicated, which should be used?"

Hitherto, when convenient, we have asked of the prescriber what he intended, but it is sometimes impossible to do this.

We are, Gentlemen

Your obedient servants,

ALFRED SAVAGE & Co.

[The Solution of the Edinb. Pharmacopoeia. EDS. MED. CHRON.]

TO CORRESPONDENTS.

Dr. M. Barrett.—If Dr. B. will turn to the document referred to, he will there find the explanation of the statement in question, and which from being in his own possession, rendered a letter of enquiry from him uncalled for. We are happy to hear of the additions, and hope shortly to have an opportunity of giving them publicity.

OBITUARY.

"At Lancaster, on 10th inst., at his father's residence, Dr. C. J. F. Robinson, of Papineauville, North Nation, only son of Wm. Robinson, Esq., Collector of Customs, aged 29 years, 7 months and 12 days, leaving a disconsolate father and mother and two dear sisters to lament his premature end. His remains were conveyed to Coteau du Lac on the 12th, and on the following day interred in the body of the Parish Church at that place, after the performance of the usual Divine ceremonies, by the Rev. Mr. McDonogh, of Williamstown, Glengarry. He died of consumption, having contracted the disease in the practice of his profession during last winter, and had only arrived at his father's residence three weeks previous to his demise. He bore his disease with Christian fortitude, and resigned his fate into the hands of his Maker without a struggle or lament. An example of humanity, regretted by a large circle of friends, and all who had the pleasure of his acquaintance and benevolent disposition."

QUHRTERLY REPORT OF THE MONTREAL GENERAL HOSPITAL ENDING 22ND APRIL, 1855.

Patients remaining from last Quarter	62	Died during Quarter	19
Admitted present Quarter	182	Remaining in Hospital	79
		Discharged	62
Total	244	Total	267
IN-DOOR PATIENTS.		OUT-DOOR PATIENTS.	
Males	94	Males	343
Females	88	Females	373
Total	184	Total	716

Diseases, &c.	Admit.	Died.	Diseases, &c.	Admit.	Died.
Abscessus	1		Incontinentia Urinæ	1	
Ambustio	1		Inebritas	1	
Amenorrhœa	2		Meningitis Tuberc	1	1
Anasarca	1		Morbus Cordis	5	2
Apoplexia	1	1	" Coxæ	1	
Arthritis	1		Ophthalmia	8	
Ascites	2		Otitis	1	
Asthma	1		Otorrhœa	1	
Bronchitis	6	1	Paronychia	2	
Catharrhus	2		Phthisis	7	4
Constipatio	1		Pleuritis	1	
Delirium Tremens	3		Pleurodynia	1	
Diarrhœa	3		Prolapsus, ani	1	
Dysmenorrhœa	1		Purpura	1	
Dyspepsia	2		Rheumatismus	26	
Erysipelas	6		Rubeola	2	
Febris Com. Cont	23		Rupia Syphilitica	1	
" Intermit	5		Scarletina	1	
" Remit:	1		Scrofula	2	1
" Typhoid	1		Sphacelus	1	
Fistula in Perineo	1		Sycosis Menti	1	
Fistula Lachrymalis	1		Synovitis	5	
Fractura	8	1	Syphilis	2	
Gelatio	7		Tinea Capitis	1	
Hæmoptysis	1		Tumor	1	
Hemiplegia	2		" Ovarii	1	
Herpes	1		Ulcus	11	
Hysteria	1		Varicocele	1	
Impetigo	1		Variola	4	
Inanitio	1		Vulnus	2	

DR. SCOTT and HOWARD,
Attending Physicians.

ROBERT CRAIK, M. D.,
House Physician and Surgeon.

BOOKS RECEIVED FOR REVIEW.

Ashton, on Diseases of the Rectum. London: John Churchill. From the Author.

Gross on the Urinary Organs. Second Edition, revised and much enlarged.

Ashwell on Diseases of Women. Third American, from third and revised London Edition.

Tyler Smith on Leucorrhœa. From Messrs. Blanchard and Lea Philadelphia.

Gibb on the Pathology of Saccharine Assimilation. From the Author.

Purple on Statistics of Injuries of the Heart. From the Author.

MEDICAL NEWS.

Sir John Liddle has been appointed Director General of the Navy Medical Department.—Sir Wm. Burnett has been granted a pension of £1,000 per annum, and the Lords of the Treasury in granting it, also conveyed their "high sense of his long, faithful and distinguished services."—Dr. John Cooper, of Glasgow, died suddenly, May 11th. He had been the Senior Surgeon of the Glasgow Royal Infirmary, and since the year 1833, was *Regius* Professor of Materia Medica in the University of Glasgow. He died at the age of 60.—During the past winter 18,200 students and matriculated in the 28 Universities of Germany of these 2,711 were strangers.—Prof. Horace Greene, has resigned his chair of Theory Practice of Medicine in the New York Medical College, and Dr. H. G. Cox, is elected his successor.—Dr. James Bryan has succeeded to the chair of Surgery in the Philadelphia Medical College.—Crosby Street Medical College is to be moved into a new building, expected cost of which computed at $80,000. It will have a commanding position at the junction of two great thoroughfares, and be in the immediate vicinity of Bellevue Hospital, and be another ornament to New York.—The chairs of Physiology and Pthology, and of Materia Medica and Therapeutics are now vacant in Rush Medical College, applications are to be made to Dr. Brainard, President at Chicago.—The Legislature of Michigan recently recommended to the Regents of the University, the appointment of an Homœopathist as a teacher, but the matter has been dropped, as the Faculty properly stated they would in that event resign in a body.—In 1849, the rates of mortality were in New York 1 to 21.9; Philadelphia 1 to 12.3; Baltimore 1 to 36.5; Boston 1 to 36.2.—Two American Surgeons in the Russian Service have lately died in the Crimea, one Dr. Isaac Draper, junr, at Sebastopol, the other Dr. C. S. King, at Kertch.—Five Surgeons of the French Crimean Army have received the cross of the Legion of Honor.—Typhus has carried off 3 Surgeons of the First French Division before Sebastopol, and 2 others who were severely attacked are fast recovering.—In one week (3rd in May of this year,) there died in London 1,143 persons; of these 159 were from Consumption, of whom 27 were less than 20 years old, 77 between 20 and 40 years, 14 were 40 and 60, and 11 were above that age and under 80.—11 cases of confluent Small Pox were fatal between the 13th and 19th May at the Small Pox Hospital, London.—A large number of the Medical Department of British Army have received "Crimean Medals," a few of the Surgeons and Assistants of the Royal Navy have also been similarly honored.—A community of medical students and others in St. Louis, recently exhumed the body of a person who had died of small pox and dissected it. 20 of those engaged in the affair are now suffering from the disease caught from the corpse in the most virulent form.—The French Hospital at Therapia being in want of dressers, nurses, and assistant surgeons, the Sultan has placed 29 pupils of the Turkish Medical School at the disposition of the French Medical officers.—During the 12 years of its operation, the state Lunatic Asylum has conferred its benefits on 4,313 patients, of these 1,763 have been discharged recovered, and at the close of the last year 450 remained.—During the year 1854, no fewer than 73,637 persons died in London, out of a population of 2 million and a half.—The inner bark of the Eucalyptus commonly called stringy bark, a native of Australia is said to be peculiarly adapted for Surgeon's splints.