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MONTHLY RETROSPECT

OF THE

MEDICAL SCIENCES.

EDITED BY

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PATHOLOGIST TO THE ROYAL INFIRMARY OF EDINBURGH.

JANUARY TO DECEMBER,

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CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

1.—*On the Mechanism by which the Valves of the Heart are closed, and by which the Sounds of the Heart are produced.* By Dr Joseph Hamernik of Prague.—In this paper the author recapitulates at some length the opinions of Dr Baumgarten on the mechanism by which the valves are closed, which he considers of much importance, and with which he professes his concurrence.

The most important points in Dr Baumgarten's views, are, that during the systole of the auricles, there is either no regurgitation, or of a very trifling amount, from the auricles into the great venous trunks. This, he conceives, is prevented by a circular arrangement of muscular fibres, observed by anatomists to surround the orifices of the veins; by the blood being impelled in the direction of the auriculo-ventricular orifice, in consequence of the greater portion of the muscular fibres of the auricle being inserted into the tendinous border of these openings; and by the *vis a tergo* of the blood; and in the right side, by the valve at the mouth of the vena cava. This latter, however, Dr Hamernik considers to be inoperative in the adult, and only useful in the fœtus. He attaches great importance to the force of the current of blood flowing in the venous trunks, due to the alternate pressure exercised by the

respiratory movements, reflux being prevented during expiration by the valves in the veins at the base of the neck; and in the vena cava inferior, he attributes a valvular action to the displacement of the liver during expiration, which diminishes the calibre of the vein at its passage through the diaphragm. Dr Baumgarten considers the pulsatory movements observed in the healthy state of parts in the great veins, to depend on the sudden interruption of the current of blood during the auricular systole.

That the auriculo-ventricular valves are closed by the counter pressure of the ventricular blood, suddenly developed by the contraction of the *auricles*. That the cavities of the auricles and ventricles, during the heart's diastole, are distended by the continuous current from the veins; while at this period the valves are to be found floating in the blood in the form of a funnel. That the object of the auricular systole is to induce such an amount of tension in the contents of the ventricles, and of course in the blood surrounding the funnel-shaped arrangement of the valves, as to cause their rapid closure; and that in this way only can regurgitation be prevented. If the heart be removed from the body, and the auricles cut away (it is better, however, to operate with one only), the artery obstructed by ligature, or by filling it with wax, and the cavity of the ventricle filled with a saline solution, the valve is found lying in the position above described. If then a stream of water be directed upon the valve from the height of a foot, so as to imitate the sudden contraction of the auricle, the valve is seen to close with great rapidity. If, however, an attempt be made to imitate the ventricular systole, by squeezing the ventricle with the hand, a large portion of its contents regurgitates before closure is effected.

That the closure is not due to the operation of the musculi papillares, but that it is much facilitated by the small specific gravity of the valves, which enables them to float on the surface of the blood.

Dr Hamernik then proceeds to make some remarks, which he considers in part deducible from the preceding.

1. It is possible that there may occur one or more systoles of the ventricles, unpreceded by any auricular action, forming what is called the "rythmus intercurrens" of the heart's action. In chronic asthma and pneumonia, the blood, powerfully propelled by the expiratory movements, may distend the auricles to such an extent, that they are unable to contract on their contents. In which circumstances, two or more systoles of the ventricles are required before the auricles can unload themselves.

2. The division by the older anatomists of the ventricles into portio auricularis and portio arteriosa, is physiologically and pathologically significant. In the former, there is a current of blood until the closing of the auriculo-ventricular valves, continuous with that of the veins. In the latter, a current is established by the ventricular systole, continuous with that of the arteries. Where there is no motion of fluid, there can be no murmur; consequently simple roughness of the mitral valve by exudation, or otherwise, will not give rise to a murmur with the first sound unless the valve be also insufficient.

3. The mechanism by which the valves of the arteries are closed, is similar to that of the auriculo-ventricular valves. Immediately on the contraction of the vennicles, the pressure of the blood attained in the large arterial trunks, acting equally in all directions, effects the closure of the semilunar valves. Their complete closure occurs contemporaneously with the end of the ventricular systole. When the ventricular diastole begins, the arterial retraction commences, and the wave of reflux from the large arteries, falls upon the valves already closed, and thus is produced the clear second sound. There is no regurgitation, which would necessarily be the case to a certain extent were the valves shut only by the returning wave of blood.

4. The first sound of the heart is occasioned by the vibration of the tense auriculo-ventricular valves, acted on by the blood propelled against them during the systole of the ventricles, and the vibration of the chordæ tendineæ. In like manner, the second sound is produced by the impulse of the blood on the semi-lunar valves already shut, and not by their closure.

5. A double or even a treble sound is sometimes heard over the ventricles, which has been ascribed to various causes, but is probably due to a double vibration of the tense auriculo-ventricular valves—just as a sail struck by the wind may emit several sounds. The same explanation is given when the phenomenon occurs with the second sound.

In contraction of the mitral orifice, there is occasionally heard a peculiar sound termed *cliquetis métallique*, or "audible heart impulse," and of which different explanations have been offered. According to the author's experience, all true heart sounds are heard by mediate or immediate auscultation only. This sound, however, is heard at a distance from the chest, and is hence presumed by him to depend on

the motion imparted by the heart's systole to the surrounding elastic tissues.

5. Morbid conditions of the muscular structure of the heart, can have no effect in preventing closure of the valves.

6. As the small specific gravity of the valves is assumed to facilitate their closure, any thing which can render them specifically heavier, as fibrinous deposits, in the case of debilitated individuals whose blood is of low specific gravity, may be conjectured to interfere with their action. It is in such cases that the re-establishment of an improved condition of the blood removes the murmur, as in typhus fever, severe pneumonia,&c. On similar principles, the author adds, the bruits observed in chlorotic patients, may perhaps be explained.—*Prager Viertel-jahrschrift*, 1847, vol. xi.

[We witnessed the experiments referred to in this paper, when performed by Dr Hamernik, and have much pleasure in testifying to their accuracy. The experiment, by which it is shown that the auriculo-ventricular valve is closed before, and independently of the ventricular systole, is very easy of performance.

The valves, when cut out of the heart, are found to float readily on the surface of blood; and probably their specific lightness plays a part in the mechanism of their closure, at least in the human subject; at the same time, that it is far from being essential is indicated in prone animals, and in the case of a man standing on his head. The seat of chlorotic murmurs prevents our attributing them to the cause hinted at by the author.]

2.—*On the Changes which take place in the Lungs after Division of the Pneumogastric Nerves.* By Dr Schiff.—It is well known that after section of the vagus nerves in the neck of an animal, death frequently takes place at an interval of a few days. In these cases the lungs are found to have undergone alterations, characterised by congestion, and the effusion of a large quantity of frothy sanguinolent serum into the bronchi; which lesions have been ascribed by authors to the paralysis of the glottis consequent on the section of its nerve (the recurrent), which induces respiratory obstruction, either directly, or by permitting of the passage of food and other matters into the trachea. Dr Schiff has performed a variety of experiments which disprove these ideas. By cutting in some animals the recurrents, and in others the pulmonary branches of the vagus, he has convinced himself that the section of the latter causes congestion, with tumefaction of the bronchial mucous membrane; while that of the former only produces narrowing and paralysis of the glottis, without any pulmonary changes. The lesions of the lungs are likewise unaffected by the performance of tracheotomy, and by the section of the œsophagus in the neck (in dogs). He therefore concludes, that the state of the lungs is dependent on the integrity of the pulmonary portion only of the nerve. Section of the nerve on one side produced a slighter amount of pulmonary lesion, but never confined to the lung of one side; a circumstance which M. Schiff accounts for by considering the anastomoses in the pulmonary plexus of nerves.—*Archiv für Physiologische Heilkunde*, 1847; *Gazette Médicale*, 2d Dec. 1848.

[Dr J. Reid considers the congestion and bronchial effusion as a secondary effect of the diminished frequency of respiration in animals in which the vagi are divided.—(Ed. Med. and Surg. Journal, April 1839.) This idea agrees perfectly with the results of the above experiments; and is, we doubt not, quite correct.]

3.—*On the Chemical Changes of Respiration.* By MM. Regnault and Reiset.—A new and very extended series of experiments on this subject have been instituted by MM. Regnault and Reiset, who give minute details of the several steps of the process employed by them, the precautions taken, and the kind of apparatus used. Their investigations, which are still in progress, seemed to be performed with much care and exactness, and their results may probably be fully relied on. The most important of these results is, that nitrogen is invariably exhaled through the lungs, though the quantity is small, rarely exceeding $\frac{1}{100}$th of the amount of oxygen consumed. Hydrogen, and certain carburetted gases, usually present themselves in small quantity. As an illustration of the changes which Regnault and Reiset found to occur in the respired air, the following results of an experiment, in which a young dog was confined in the apparatus for twenty-four hours and a half, may be quoted:—

	Grammes.
Oxygen consumed - - - -	182·288
Carbonic acid produced - -	185·961
Oxygen contained in the carbonic acid - - - - - -	135·244
Nitrogen disengaged - - -	0·1820

If the quantity of oxygen consumed be represented at 100, then the results may be thus stated:—

Oxygen consumed - - - - -	100
Oxygen in the carbonic acid -	74·191
Oxygen otherwise disposed of -	25·809
Nitrogen disengaged - - - -	0·0549
Average quantity of oxygen consumed in an hour - - -	7·44

These experiments rectify the erroneous results of Dulong and Despretz, who found that the quantity of nitrogen disengaged during respiration, was sometimes as great as one-fourth the quantity of oxygen absorbed.—*Comptes Rendus and Medical Gazette*, Oct. 13, 1848.

II.—PRACTICE OF PHYSIC.

4.—*On Scarlatina.* By J. W. TRIPE, M.D.—Dr Tripe defines scarlatina to be "a contagious eruptive fever, characterised by a uniform inflammatory action of the vessels of the skin, and of the mucous membranes of the alimentary canal, and of the urinary passages, which terminates in disquamation of their epithelium. it ordinarily attacks any one of these membranes but once during life."

After pointing out that this definition differs considerably from any other previously given, he proceeds to show that the membranes above enumerated are ordinarily attacked by the disease, and states his belief that such attack is necessary for the protection of the patient against a subsequent invasion of the malady.

The phenomena presented by the disorder during the epidemic of this year (1848), are next considered. The earliest symptoms consisted in diarrhœa or in vomiting, or in both; these were observed in every case in which severe inflammation and ulceration of the throat occurred. The eruption was frequently of a purplish tint, and severe cynanche existed in 44·4 per cent. of the whole number of cases. In all these latter cases a strong solution of the nitrate of silver (℥j to ℥j aquæ) was freely employed, and with the greatest benefit. One case of very extensive inflammation of the parotids is mentioned, in which the novel treatment of opening the external jugular vein was adopted, and with marked relief.

Dr T. divides the cases in which coma and delirium occur, into two classes,—1st, in which they appear previously to the eruption; and, 2d, in which they supervene after it has come out. This latter form is subdivided into the inflammatory and the non-inflammatory. Cases are given in support of this division.

The alterations that occur in the urine during the progress of the disease are next considered. He observes that Dr Franz Simon, in his chemistry of man, was one of the first who investigated this point; and he gives several quotations from Dr Day's translations to show this. From his own observations he states, that the urine in scarlatina simplex is at first reduced in quantity, and subsequently contains albumen, a few mucus or pus and blood corpuscles, some other cells, and a smaller or larger quantity of disintegrated epithelium. In some cases the urine is but little altered. In scarlatina anginosa it contains a much larger quantity of albumen, of blood and mucus corpuscles, and occasionally triple phosphate. If the albumen does not disappear from the urine before or at the same period that the eruption leaves the skin, he considers that the convoluted tubes of the kidneys are either impacted with epithelium, or inflamed, the latter condition being recognised by the fibrinous casts of the renal tubules which are described by Simon. Dr Tripe doubts that these cylinders have any true envelope, and states that the cells contained in the amorphous mass are often much larger than they seemed to be at first sight, as the nuclei appear like cells, and are frequently described as such. In scarlatina maligna the urine is much altered, usually containing a large quantity of albumen, of blood and mucus corpuscles, mixed with fibrinous cylinders, and a large quantity of disintegrated epithelium. The greater the quantity of blood and albumen in the urine, the smaller is the chance of recovery.

Under the head of secondary affections, are classed affections which are said to constitute an integral part of the malady, viz., the inflammation of the mucous membrane of the fauces, pharynx, and other parts of the alimentary canal, and of the renal tubes. This inflammatory affection of these parts is considered to be necessary for the protection of the patient from a subsequent attack of scarlatina; and cases are related to show, that a person who is suffering from the cynanche without the eruption, may infect another with scarlatina. Three cases are thus stated,—"Mrs M. and her eldest daughter had scarlatina simplex of Bateman, some years since. Whilst the former was attending on her son, who died from scarlatina maligna, she felt very weak, languid, and feverish, with pains of her limbs and back. On the

third day she was attacked with severe cynanche, the tonsils ulcerated, and the fauces and pharynx assumed the appearance met with in S. anginosa. Date of attack, June 16th. On the 2d of July her eldest daughter (who had been brought home from the country contrary to my wish) was seized in a similar manner; the disease took the same course, and she recovered. Her sister, who had not had scarlatina, complained of the premonitory symptoms on the 11th. The eruption appeared on the third day, and was not attended with cynanche of the tonsils, but with sloughing of the mucous membrane of the posterior nares, fauces, &c. She died on the eighth day. Other similar cases which came under my notice, have irresistibly compelled me to believe that the cynanche forms an integral part of the disease, which, if once had, is not more likely to recur than the cuticular eruption. If, therefore, it is not had at the same time with the rush, the patient will be liable to its invasion in any future exposure to the infection."—Vol. 19, p. 6 and 7.

The changes which have been described as occurring in the urine, and some cases which are detailed, are adduced in proof of the assumption, that the kidneys are invariably more or less implicated by the disease. A case is related to show that dropsy may occur after exposure to the virus, in a patient who has had the rush and cynanche previously.

Dropsy.—There are three varieties. "1st, In which the urine is non-albuminous; 2d, In which the urine is albuminous, and the disease arises from a congested or subacute inflammatory state of the kidney; and, 3d, In which the urine is albuminous, but the kidney is in a state of acute inflammation. It had better, therefore, be divided into *A*, dropsy from debility; *B*, dropsy from renal derangement, (*a*); and disorganisation, (*b*)." This division is practically of great importance, as the former, *A*, is an innocuous disease; whilst the others, *B a*, and *B b*, especially the latter, are highly dangerous. The variety *B a*, consists essentially in derangement in the circulation, and in irritation or subacute inflammation of the secretory tubules of the kidney. The urine contains albumen, mucus and blood corpuscles, fibrinous cylinders, epithelial cells, large globular transparent nucleated cells, like the so-called parent cells of cancer, and a peculiar large yellow cell with indistinct nuclei, which occur sometimes singly, but more generally in rows, or in masses. These patients usually recover Variety *B b* is not readily distinguishable from the former (as both forms have a tendency to pass the one into the other.) except by the greater amount of febrile symptoms, and the greater quantity of the fibrinous cylinders of the yellow cells, and of the albumen and blood in the urine.

Dr Tripe next gives a brief *resumé* of the pathological changes that occur in the kidneys during the progress of the eruption, and of the inflammatory dropsy. He states that the increased nutrition of the cells lining the tubuli uriniferi, induced by the absorption of the septic poison of scarlatina into the blood, and its excretion by the agency of these cells, induces an increased rapidity in their desquamation, and a consequent blocking up of the renal tubes. After an attack of inflammation a variable number of the tubules are rendered useless; if the number be large, the patient will be likely to have a return of the dropsy; if the number be small, the recovery may be considered perfect. The seat of the disease in the kidney is pointed out, and the changes occurring in the progress of the disorganization are also indicated. The treatment of inflammatory dropsy should be at first antiphlogistic, followed by the exhibition of the tincture of the sesquichloride of iron, and of hydragogue purgatives. Diuretics are highly injurious, and must be strictly avoided, as they would only increase the already too rapid nutrition of the renal cells, and would thus increase the disorganization of the glands.

The question of the contagious character of the disease is next discussed, but need not detain us; suffice it to say, that the question is decided in favour of contagion. It is observed, however, that certain states of the system, of the atmosphere, &c., so modify the poison, "that the virus is only one agent out of several to which it is necessary to apply the term cause." The conditions necessary for the propagation of the disease are, "*A* (*a*), a state of the patient favourable for its reception, and (*b*), a certain degree of concentration of the virus. *B*, The conditions which modify the disease are, (*a*) the state of the system of the recipient, (*b*) the intensity of the virus, (*c*) certain general, and (*d*) local alterations in the atmosphere, (*e*) the age, and (*f*) the sex of the individual attacked." Each of these are subdivided; some into several subdivisions.

There is nothing to detain us in division *A*.

B a, α. A robust state of the individual attacked seems to predispose to active inflammation, and to inflammatory swelling and ulceration of the tonsils.

B a, β. Debilitated and badly fed per-

sons are more subject than the robust to sloughing of the mucous membrane of the fauces, and to considerable changes in the kidney; to abscesses in various parts of the body, and in the joints; and to the uncomplicated malignant form in which the patients die from the sedative effect of the virus on the nutritive functions.

B a, γ. Any causes that depress the powers of the patient may exert an unfavourable influence on the progress of the malady.

B a, δ. The occurrence of scarlatina in pregnant women is ordinarily fatal.

B a, ε. Organic disease of the kidney exercises an unfavourable power over the disease, as the kidneys are the organs which take a prominent part in excreting the poison from the system.

B a, ζ. Secondary attacks of scarlatina are not unfrequently fatal from the disorganization in the fauces and kidneys. An interesting case is related of inflammation of the secreting part of the kidneys, apparently induced by exposure to the poison of scarlatina, although no eruption came out.

B b, α. The poison of scarlatina varies in intensity at different periods, being unusually violent in close, confined, ill-ventilated neighbourhoods. The poison does not appear to be the only cause of the varieties of the disease, as it does not, by any means, invariably produce a similar form of the disease in the person infected, as that which attacked the person from whom it was caught.

B b, β. The amount of the poison received does not ordinarily appear to have much effect on the form or intensity of the disease, except that a longer time is requisite for the development of the symptoms when the dose of the poison absorbed is small. Sometimes the amount and intensity of the poison absorbed are so great as to cause speedy death, without any organic change in the tissues. Dr Tripe enquires, "what is the relation between the amount of the poison absorbed, and the extent of the resulting disease?" No necessary relation is considered to exist between them, as the disease multiplies itself by a kind of catalytic action at the expense of certain of the constituents of the blood; the quantity so produced varying according to the number of particles so decomposed.

The next part of the subject consists in the modifications produced in the disease by variations in the weather; but as this part of the subject is still unfinished, we must defer the consideration of it to a future period.—*Medical Times*, November 1848.

●.—*Œdema of the Glottis successfully treated by Scarification.* By Dr G. Buck, New York.—There is nothing novel in the proposal contained in Dr Buck's memoir, the saw operation having been practised by Lisfranc nearly thirty years ago; but the cases recorded (five in number), are very interesting illustrations of the success of this method of treating acute œdema of the glottis. All the five cases did well. Other three cases that occurred during the same period in the New York hospital, terminated fatally, scarifications or tracheotomy not having been resorted to.

The following is the mode of performing the operation of scarifying, employed in the cases related by Dr Buck:—

The patient being seated on a chair, with his head thrown back and supported by an assistant, he is directed to keep his mouth as wide open as possible; and if there be any difficulty in this respect, a piece of wood an inch and a quarter in width, and half an inch in thickness, is placed edgewise between the molar teeth of the left side. The forefinger of the left hand is then introduced at the right angle of the mouth, and passed down over the tongue till it encounters the epiglottis.

But little difficulty is generally experienced in carrying the end of the finger above and behind the epiglottis, so as to overlap it and press it forwards towards the base of the tongne.

Thus placed, the finger serves as a sure guide to the instrument, the scarifying portion of which is about an inch in length, and is bent nearly at right angles to the handle, which is six inches long. The knife is then conducted, with its concavity directed downwards, along the finger till its point reaches the finger nail. By elevating the handle so as to depress the blade an inch to an inch and a half farther, the cutting extremity is placed in the glottis between its edges; at this stage of the operation the knife is slightly rotated from one side to the other, a cutting motion being given it in the act of withdrawal. This may be repeated, without removing the finger, two or three times on either side. The margin of the epiglottis, and the swelling between it and the base of the tongue may be scarified still more easily with the same instrument.

Though a disagreeable sense of suffocation and choking is caused by the operation, the patient soon recovers from it, and submits to a repetition after a short interval. In every instance the operation was performed twice, and in some three times. A slight hemorrhage follows, and should be encouraged by gargling with warm

water.—*Trans. Amer. Med. Assoc.*, vol. i. p. 135.

[The œdematous parts are thus disgorged, and the respiration is so much relieved as to afford time for the operation of other remedies, and the necessity of resorting to tracheotomy may be obviated.

6.—*Localization of Cutaneous Disease.* By Dr C. Baron, Jun.—Dr B. forms ten distinct classes, according to the anatomical element of cutaneous disease. The first comprises the disorders of the vascular system—roseola, measles, scarlatina, erythema, &c. Their principal character consists in redness, and in many of them the presence of feverishness shows the participation of the general circulation in the disturbance of the capillary system of the surface. In scarlatina, according to our author, it is the venous capillary net-work which is inflamed, or rather congested; the venous arterial and lymphatic elements are inflamed in erysipelas; a chronic inflammation of the superficial vascular layers constitutes pemphigus. Their preternatural development is observed in nævus, and if the deeper-seated vessels are increased in size the disease acquires the nature of erectile tumours.

2. The papillæ are the organs of cutaneous sensation; their diseases will, therefore, be accompanied by increased or diminished local irritability, and the excessive pruritus of urticaria and prurigo, induce Dr B. to class them amongst disorders of the papillary system. In elephantiasis sensation is at first deadened, and the papillæ hypertrophied.

3. Affections of the sudoriferous system are generally observed in young subjects. They are attended usually with feverishness, and either consist in augmented secretion, as in miliaria and sudamina, of inflammation of the sudoriferous organs and capillaries of the vicinity, or in the inflammation of their ducts as in herpes.

4. Maladies of the blennogenic system (secretion of epidermis) are habitually chronic and tenacious; almost in all cases the secretion of epidermis acquires an undue degree of activity; simple congestion constitutes pityriasis, inflammation, eczema, chronic inflammation, and slight induration, psoriasis; perversion of secretion, ichthyosis; increased abundance of secretion, and of hardness of epidermis, bunions, and corns.

The fifth class consists of perversion of functions of the chromatogen or colouring apparatus. The sixth is one of the most important, comprising the maladies of the follicular system, *i. e.*, the varieties of acne and impetigo. The seventh class refers to diseases of the organs of secretion of hair, amongst which M. B. places lichen. The eighth class, which scarcely deserves that name, and might perhaps be blended in the fourth, is consecrated to diseases of the organs of secretion of nails. The ninth division has more extent and more importance. It is constituted by maladies of the fibro-cellular texture of the dermis, such as ecthyma, rupia, variola, furunculus; and, finally, the tenth class characterised by the lesion of several anatomical elements of the skin in scabies.—*Acad. de Médécine; Dr M'Carthy's Report in Med. Times*, Nov. 25, 1848.

[Dr Baron's classification is a very good plaything, but is entirely useless and unpractical. It is deeply imbued with the error of all so-called pathological classifications; that, while *professing* to be founded exclusively on facts, it in reality compels the mind to rest upon much which is wild hypothesis, if not positive error. Very much of Dr Baron's system must be placed in these categories. Why, for instance, is the "congestion" of the superficial vessels which exists in the exanthemata, treated as of such primary importance in most of them, and overlooked in urticaria? How does "simple congestion" of these vessels constitute pityriasis (class 4), while the same simple congestion is equally the pathological cause of scarlatina (class 1)? Why are the different phenomena of eczema and psoriasis (class 4), referred to exactly the same pathological cause, chronic inflammation with increased secretion of epidermis? These are only a few of the questions which might be asked, but they are sufficient to show that *precision*, the great object of all classification, is not advanced by this system, while by "assuming a virtue" which it has not, it bars the way to further improvement.]

7.—*On the Antagonism of Gout and Phthisis.* By Dr Garrod.—The gouty diathesis has been supposed inimical to the development of tubercular disease. It is true they are rarely combined in the same individual; but this is easily accounted for by the fact, that gout, in general, does not appear until the age of forty, whereas tubercular disease is much more frequent before that period. But cases do occur in which the two diseases coexist; and the following very interesting example is related by Dr Garrod:—A young man, aged twenty-eight, a native of London, whose father and grandmother

had suffered from gout, applied for relief at University College Hospital, and was admitted under the care of Dr Williams. He was a painter by trade, and for some years he had been of very intemperate habits, but until the last few had had plenty of food and clothing. From the age of seventeen, he had suffered from what he termed "rheumatism," (gout?) but had had an affection of the heart with it. Formerly he was of full habit, but about three years since began to lose both flesh and colour, although he did not feel particularly ill, and had no cough at the time. He was soon after seized with an attack of gout, both in his feet and hands; tophaceous deposits formed, and he was confined to his bed for twenty-eight weeks. About two months after his recovery he was again attacked, and then had a severe cough, with expectoration of a greenish hue. The pectoral symptoms continued for about four months, the gouty two months longer. From this date, until his admission into the hospital, he was constantly suffering from chest affection and gout; hæmoptysis had occurred once, and deposits of urate of soda frequently came away from his joints. When admitted into the hospital he was pallid and emaciated; complained of pain in various joints, arising from gouty inflammation; also of pain in his side, cough, and expectoration of a muco-purulent character. On physical examination, clear evidence was found of the existence of tubercular deposition in both lungs, especially the left, at the apex of which, a distinct cavity was indicated by the production of pectoriloquy and cavernous respiration; during the remaining month of his life, the gouty affection continued to progress, now appearing in one part, now in another, and occasionally with the discharge of urate of soda from some of the joints.

The post-mortem appearances in the lungs fully proved the accuracy of the diagnosis. The kidneys were small, and many of the tubuli were filled with a white matter, consisting of crystallized urate of soda and uric acid. An examination of the blood was also made, and it was found to contain a very large amount of uric acid, larger than Dr Garrod had ever before obtained.—*Med. Gaz.* Dec. 8.

8.—*Diagnosis of Endocarditis.*—M. Bouillaud gives the following differences between the bellows-sound in chlorosis and endocarditis.

In the former it is inconstant, soft, and short; it accompanies, but does not entirely conceal the first sound, and is most distinct in the neighbourhood of the aortic orifice, whence it is propagated to the carotids. This murmur increases when the patient is weak, and disappears on any exertion.

In the latter it is constant, rough, and prolonged; it not only accompanies, but absorbs and conceals, the first sound. It is most distinct at the apex of the heart; does not increase when the patient stands, nor cease on any exertion.—*Medical Times,* xix. p. 145.

9.—*Idiopathic Atrophy.*—Atrophy limited to a circumscribed part of the body, and supervening at a time when the patient appears in a state of perfect health, is of very rare occurrence. The following case recently occurred in Rayer's ward at La Charité:—

A journeyman, aged fifty, was for several years engaged in works requiring much exertion. He had recently (for fifteen months) been a paper-glazer. In August 1847, he perceived that his arms were becoming gradually weaker; and in January he was obliged to give up his business. On examination, his countenance was natural, and his head apparently unaffected The hands were in a state of semi-flexion, and extremely thin. The muscles of the thumb and little finger had disappeared. Both in the hands and arms the muscular system was more atrophied than the areolar. The muscles of the arm were thrown into action by galvanism; but those of the palm and the interosseous muscles were insensible to this stimulus. The legs were weak, but the patient could walk without difficulty. Sulphurous baths were prescribed, but without any apparent good result.

M. Rayer believes that in this case the atrophy of the muscles of the upper extremities was induced by over-exertion, and concludes that the cause which usually induces hypertrophy, may occasionally induce an opposite effect.—*L'Union Méd. and Med. Times,* Dec. 9. 1848.

10.—*Renal Dropsy produced by large doses of Copaiva.*—Mr Thomas mentions the case of a man, aged forty-three, who, three weeks previously to his application at the Cumberland Infirmary, contracted gonorrhœa, for which he applied to a druggist, who gave him a copaiva mixture. In order to expedite the cure, he took double the quantity prescribed. The urethral discharge entirely ceased in a few days, but new symptoms set in—much pain in the lumbar region, urine scanty and high-coloured. When seen by Mr Thomas his legs and thighs were œdematous, besides a

little effusion into the abdomen. His urine was of a smoky colour, and very albuminous. He was cupped on the loins, and ordered a drachm of compound jalap powder twice a-day, and a warm bath twice a-week. The treatment was continued, though less vigorously, for about six weeks, when he was discharged quite well.—*Medical Times*, xix. p. 144.

[There is nothing new in this observation, Schönlein and others having noticed years ago that copaiva has a tendency to produce Bright's disease. The above case, if neglected, would probably have terminated in this disease.—See Remak's *Diagnostische und Pathologische Untersuchungen*, pp. 168-9. Berlin: 1845.]

III.—PRACTICE OF SURGERY.

11.—*On the Means of insuring Success in Cases of Amputation.* By Professor C. SEDILLOT.—The object of M. Sédillot's remarks is to show, that making allowance for other causes, much of the fatality following amputations may be accounted for by the method of operation, and the subsequent plans of dressing the stump. After speaking of the circular operation generally adopted in France, and showing that to obviate the constant tendency of the bone to protrude, or the formation of a conical stump, the surgeon is obliged to compress the limbs above by a circular bandage, to prevent the muscular retraction, to support the soft parts, and maintain the integuments of the proper length; and that, besides these bandages, the parts are united by means of plasters and stitches, and covered with pledgets of lint and compresses, the whole being retained by more bandaging; he points out the bad effects of these dressings, and then proposes his method of procedure to do away with all these evils. This method is, simply to abandon the circular amputation, and to operate by a single anterior flap, the flap being so cut as to embrace two-thirds of the circumference of the limb, the remaining third being cut perpendicularly, on a level with the angles of the flap; so that, after the bone is sawn through, the flap may, by its own weight, fall upon and cover the surface of the wound, without requiring any complicated dressings. A piece of lint folded, about two finger-breadths in size, moistened with some digestive, is placed over the bone, so as to form a central canal to permit the escape of the discharge. The angles of the flap are held in apposition by means of two hare-lip pins: the lint is removed at the end of three or four days, leaving a vertical drain, in which neither blood, serum, nor pus, can accumulate.

M. Sédillot states in favour of this plan, that out of twelve amputations during the preceding fifteen months, including one of the thigh, six of the leg, one at the ankle-joint, one of the great toe, one of the fore-arm, and one of the finger, he had only lost one case, that of the great toe. The Parisian editor however remarks, that M. Baudens at Val de Grace, who adopts M. Sédillot's method, has not had a greater proportion of success than the surgeons of the civil hospitals of Paris.—*Annales de Thérapeutique Médico-Chirurgicale*, September and October, 1848.

[M. Sédillot explains, that by anterior flap, he does not use the term in its *exact* anatomical sense; that, for example, by the anterior aspect of the fore-arm, he means its *posterior* (?) and external region, and by anterior, as applied to the upper arm, he means external. He does not explain, however, what we wish especially to know, where he gets a sufficient *anterior* flap in the leg, which will, by its own weight, cover in the wound; perhaps going a little further round the limb than in the fore-arm, he gets it from its *posterior* region.

Whilst we admit that much of the success of amputation depends on the plan of operating, the after dressing and treatment, we must look to other causes less under the control of the surgeon than these, to explain the mortality of the greater amputatious; but even as regards the plan of operating and treatment which M. Sédillot seems to propose as new, to say nothing of the principles involved in the method of antero-posterior flaps, recommended by Mr Liston, and the simple plan of dressing, which he advocated so strongly; had M. Sédillot taken the trouble to acquaint himself with the history of amputation in other countries, he would have found that the identical plan of operation by single flap, which he proposes, even to the position whence the flap is obtained, and the placing the pledget of lint between the bone and flap, was recommended and practised constantly by Mr O'Halloran of Limerick, in amputating the thigh, arm, and fore-arm, as far back as 1765.]

12.—*Amputation of the Ankle-Joint.* By M. ROBERT, (Hôpital Beaujon).—M. Robert performed this operation on a girl

thirteen years of age; the operation was, as regards the result, the same as that of Mr Syme, but the mode of operating differed, in as much as M. Robert commenced by disarticulating the foot, and then carried the knife behind the os calcis so as to divide the tendo-achillis, and complete the operation by forming the plantar flap last: the malleoli were then sawn off. At the time of the report, three weeks after the operation, the flap had adhered in the greater part of its extent, and the cure was going on favourably. — *Annales de Thérapeutique, Méd. Chir.*, Sept. and October 1848.

[The modification adopted by M. Robert, and which the Parisian editor seems to think less convenient than the usual plan of dissecting up the plantar flap in the first instance, has been performed here in some cases, and for our own part, after having tried both plans repeatedly on the dead body, and performed them both on the living, we think the method pursued in M. Robert's case is preferable, as being rather more expeditious, and, what is of greater consequence, causing less twisting and disturbance of the tissues composing the plantar flap, than where we begin by dissecting up that flap. The French editor remarks, that the ankle-joint amputation is at present engaging much attention in Paris, as to the after condition of the patient in regard to their ability to use the stump for walking. We should have thought the facts published by Mr Syme and others, in this country, and the cases of MM. Baudens and Jules Roux, &c., in France, would have satisfied the most sceptical. But it seems that M. Bauden's patient, after walking perfectly on the stump with the assistance of a simple shoe with a metal plate, for upwards of two years, had to submit to amputation of the leg for a return of the disease (caries). Some of the Parisian surgeons choose to attribute this to the stump being badly adapted for walking. As regards the recorded facts of Mr Syme and J. Roux, they seem to wish to form their judgment from the cases operated on within their own immediate sphere, rather than from facts reported from a distance. Of two patients operated on by M. Blandin, one is dead, and the other is cured, but the superficial sinuses which existed before the operation continue open. M. Blandin is of opinion that the patients should use an artificial leg, like that worn after amputation above the malleoli, instead of walking on the stump, and on this account he does not saw off the malleoli. We have noticed these opinions in reference to this amputation, to show how far prejudice and preconceived ideas, backed by a few isolated and misinterpreted facts, will go to prevent the general adoption of an operation, the advantages of which one would think almost self-evident. To the profession in this country, where the operation is established, and its advantages universally admitted, no comment is needed on the doubts expressed by the Parisian surgeons.]

13.—*Amputation of the Thigh.* By M. BAUDIN.—In amputating at the upper third of the thigh, on account of a gun-shot wound, M. Baudin combined the flap and circular operations, by making, from without inwards, a small anterior flap, consisting only of the skin and cellular tissue, and then completing the operation by the circular incision.

He considers this method to possess the following advantages. The semilunar flap, falling from its own weight, covers the wounded surface—the edges of the wound are more easily kept in contact—there is a free exit for the purulent discharge—and the cicatrix being situated behind, is not so liable to be injured by wearing an artificial limb.—*Gazette des Hôpitaux*, 9th November.

14.—*Case of undescribed Congenital Malformation of the Shoulder-Joint, simulating Congenital Dislocation.* Dr BELLINGHAM, on examining a patient, noticed that his right shoulder and arm presented a very different appearance from the left; the muscles, particularly the deltoid, being atrophied, and the bulk of the arm being one-half that of the opposite limb, in which the muscles were largely developed. He could not raise the arm to a right angle with the body, but all the underhand motions were well performed, and he stated that he could carry heavy bodies in the hand. On being questioned, he said this had been the condition of the arm as long as he could remember; he had never received an injury in the part until two or three years since, when the clavicle on that side was fractured.

On examination, the shoulder-joint presented somewhat the appearance of a congenital dislocation; the acromion process was very prominent, the deltoid muscle scarcely developed, and the arm about half the size of the opposite limb; in every motion of the joint, the scapula moved with the humerus, as if anchylosis had taken place; the arm could not be brought to a right angle with the body; when raised nearly to this point, there was a sudden check to its further elevation. The head of the humerus did not form any prominence in the axilla, nor was there a vacant space between the acromion pro-

cess and the head of the humerus, and the elbow did not project from the side.

On a post-mortem examination, the supra-spinatus, the infra-spinatus, and the sub-scapularis muscles were found to be atrophied and converted into fatty matter, similar to what is seen in cases of very old unreduced dislocation, where the muscles had not for many years been called into action. Scarcely any traces of the deltoid muscle existed; the biceps was wasted, as were likewise the other muscles of the arm, but they were not altered in texture. The capsular ligament of the shoulder-joint was very thick, consisting of several layers which were separated from one another by cellular tissue. At the under surface of this ligament, and apparently forming a part of it, a round very strong ligament passed from the scapula to the humerus, which became extremely tense when the arm was raised from the side, and rendered it impracticable to bring the arm above a right angle with the body, even when the muscles connected with the joint were removed. The head of the humerus was in contact with the glenoid cavity, and remained in contact with it after the muscles were cut away, and after the capsular ligament had been opened above. The scapula, clavicle, and humerus were small, resembling those of a delicate female, rather than of a labouring man. There was no appearance of the clavicle upon that side having ever been fractured.

Dr Bellingham says the condition of the shoulder-joint now described, which there is every reason to believe was congenital, must constitute a very rare form of malformation, as he had met with no account of a dissection where such a condition of the parts was observed; and the most recent work upon injuries and diseases in the vicinity of joints, by Mr Smith, contains no case resembling it.

The original malformation here, was undoubtedly in the capsular ligament of the shoulder-joint, the inferior portion of which was condensed, shortened, and converted into a kind of round ligament, which so limited the motions of the arm, that it could not be raised above a right angle with the body;—the muscles employed in raising the arm were never, therefore, called into action, and their tissue had degenerated; in some, as the supra-spinatus, the infra-spinatus, and the sub-scapularis, the muscular tissue was converted into a matter resembling fat; while the fibres of the deltoid seemed never to have been developed, so completely was its muscular tissue absent.

The scapula, clavicle, and humerus upon this side, which resembled rather those of a delicate female than of a robust man, were exhibited to the members of the society, and are now in the Museum of the Royal College of Surgeons.—*Dub. Med. Press*, July 5th, 1848.

15.—*Luxation of the Astragalus inwards; Reduction.* By MM. Thevenot and Boyer.—On the 8th of September, the patient, a heavy person, was thrown from his horse, and, when he endeavoured to rise, found that he could not stand on the right foot. He was seen soon afterwards, when the limb was found to be in the following condition. The anterior part of the foot formed a right angle with the leg, and there was neither shortening of it nor of the heel, but the whole foot had been forced outwards, so that its axis, instead of being continuous with that of the leg, was about an inch external to it. The fibula was entire, and below the external malleolus there was found a large cavity, into which the integuments could be pushed to a considerable depth; this cavity was bounded inferiorly by the superior aspect of the os calcis, which could be easily felt. The tibia was uninjured, but below the internal malleolus, a large hard polished surface was felt lying immediately under the skin. This surface was evidently the articular pulley of the astragalus, and in front of it the depression formed by the neck of that bone was felt. The malleolus rested firmly upon the external aspect of the astragalus, which had become superior. The skin at this part was much stretched and discoloured by the pressure, but not perforated.

The day after the accident, the patient having been put under the influence of chloroform, M. Boyer endeavoured to reduce the dislocation. Two assistants made extension of the heel, whilst other two maintained a counter-extension of the thigh, the leg being half flexed, with its inner aspect looking upwards. Considerable lengthening having been thus effected, he tried to push back the astragalus. The bone was easily forced into the place made by the extension, but it retained its wrong direction, and the displacement recurred as soon as the extension was lessened. Several such attempts having failed, M. Boyer, whilst the limb was being extended, pushed upon the external margin of the foot with his knee, so as to cause forcible adduction of it, and at the same time pressed with both thumbs on the superior border of the astragalus. The displaced bone was thus turned round, and resumed its right position with a loud crack, the deformity completely dis-

appeared, and the foot could be moved without causing pain. No unfavourable symptoms occurred; the patient gradually recovered the use of the limb, and he can now walk with ease.—*L'Union Médicale.*

16.—*On Strangulated Hernia.* By Mr EDWARD COCK.–The object of this memoir is to show the propriety of securing total rest, and a temporary cessation of the ordinary function of the alimentary canal, in all instances where the intestine has received an injury, whether such be the result of external violence, or of strangulation in a hernial sac. The latter class of injury, it is to be remembered, is almost necessarily enhanced and aggravated by the manipulation of the surgeon, and by the exposure and the violence offered to the bowel during the progress of an operation for strangulated hernia. The principle which should guide us in the treatment of an injured intestine, is analogous to that which we follow in the management of a broken limb. Mr C. recommends a careful abstinence, during the first few days after the operation, from the use of purgative medicines; and the free exhibition of opium, which, in such cases, he has found to act as a pure sedative, without manifesting its ordinary injurious effects as a narcotic; "producing calmness, quietude, and even cheerfulness, without impairing the appetite or interfering with the natural secretions of the body."

In support of those views he gives an account of several cases which he considers remarkable, in as much as that with this treatment the patients recovered under circumstances which are generally followed by a fatal result.

In one case the patient, a delicate female, had had an irreducible femoral hernia for sixteen months; and for a week before being seen by him, had been suffering from symptoms of obstruction of the bowels. The sac, when opened, was found to contain between four and five inches of small intestine, of a nearly black colour, firmly connected to it by old adhesions With some trouble and difficulty the adhesions were separated, and the whole of the bowel returned into the abdomen. She was much collapsed, but rallied after taking some brandy; and was ordered to have a quarter of a grain of morphia every three hours. In a fortnight the wound was nearly closed; and, during the whole of this period, she required the constant exhibition of morphia: so long as she remained under its influence she was quiet, calm, and cheerful; but when its use was suspended, even for a few hours, she became restless, irritable, and collapsed.

Another case is one of inguinal hernia of very great size. Mr C. having divided the stricture freely outside the neck of the sac, attempted in vain to return the contents. He then opened the upper part of the sac, and exposed a mass of omentum blocking up the opening of communication with the abdomen, and behind, nearly three feet of small intestine, immensely distended with flatus, and nearly black in colour. The reduction of this volume of intestine was very tedious; nearly half an hour having elapsed before it could be replaced in the abdomen. The omentum was partly returned, but a considerable portion being adherent, was left in the sac. This patient was ordered to have one grain of calomel and one grain of opium every four hours. The only other treatment necessary was the application of a mustard poultice, to relieve tenderness of the abdomen, and the use of the catheter on account of retention of urine. In a few days he was able to discontinue the use of the opium, but several weeks elapsed before the process of cure was completed, suppuration having taken place in the sac and retained omentum.—*Guy's Hospital Reports,* October 1848.

17.—*Reduction of Strangulated Hernia during Syncope.* By M. CABARET.—In the Medical Journal of Montpelier M. Cabaret describes a case where he had been endeavouring, for some time, but without success, to reduce an inguinal hernia; when the patient, having become faint from fear, and the abdominal muscles in consequence relaxed, the tumour was immediately reduced.

M. Pourcher also relates a somewhat similar case. The patient, a robust middle-aged man, had a large inguinal hernia, presenting symptoms of strangulation. Repeated attempts having been made to reduce it, but without success, he was bled from the arm while in the erect posture until syncope took place, when M. P. was able to perform the reduction with perfect ease.—*Gazette des Hôpitaux,* 7th October 1848.

18.—*Rupture of the Intestine in a Strangulated Hernia from the attempts at Reduction by the Taxis.* By M. MAISONNEUVE.—The patient, a middle-aged man, had strangulation of a congenital hernia in the tunica vaginalis. The strangulation had lasted for twenty-four hours. A gurgling sound was perceived in the sac, which gave rise to the suspicion that the intestine had been torn in the attempts to reduce it by the taxis. The operation for dividing the constriction disclosed a triangular rupture

of the intestine, which was neither so dark coloured, nor so softened as to have given way spontaneously. Some small foreign bodies of a cartilaginous nature were found floating in the serum of the sac. M. Maisonneuve, availing himself of the healthy state of the intestine, employed the suture of Dr Gely of Nantes, which has for its object the bringing and retaining in contact the serous surfaces of the two extremities of the intestinal tube (l'adossement des sereuses du tube), by a sort of overcast seam, in which, in a space of six inches, he applied sixty stitches. [This suture is a modification of a plan, the proposal of which, is claimed in France, by MM. Faure, Jobert, Denous, and Lembert.] The wound healed well, being cicatrized at the eighth day, and the patient is going on favourably.—*L'Union Méd.*, Oct. 7, 1848.

19.—*Wound of the Right Kidney successfully treated.* By M. Blandin.—A young man, aged twenty, received a poignard wound in the back, in the right subcostal or renal region. He was carried to the Hotel Dieu, complaining of intense pain in the right side, extending forwards towards the iliac fossa, and back towards the wound; he passed blood in micturating, and there was great general anxiety. The wound, which was horizontal, was scarcely two centimetres in length, and appeared to correspond to the anatomical region of the kidney. The position of the wound, together with the bloody urine, led M. Blandin to diagnose a wound of the kidney. The patient was bled largely, and kept perfectly quiet in the horizontal position in bed, and put on low diet. For two days after his entrance into the hospital, the urine continued bloody, but less so than at the first; the venesection was nevertheless repeated three times. On the third day, the bloody urine had disappeared, the patient was free from fever, and desired food. The small wound, however, still continues open externally, and the low diet and perfect rest are continued; but the absence of fever or other accident, and the cessation of the hæmaturia and pain, give reason to hope that the patient will soon be completely cured. Meanwhile M. Blandin keeps him in the hospital under surveillance, in case of secondary accidents resulting from the injury.—*Annales de Thérapeutique*, September and October 1848, p. 246.

At the time the above observation was reported, the patient was considered by M. Blandin to be almost cured; but, since this, unexpected accidents have supervened, and it is our duty to follow up this rare and interesting case. The patient continued much in the same state as reported in our last, and his convalescence was almost completed, when, owing to excess in eating and walking, he was seized with a sudden return of his former symptoms, namely, abundant hæmaturia, violent bilious vomiting, pains in the wounded renal region, with swelling in that part and in the shoulder, and general anxiety and fever. There seemed to be no affection of the peritoneum, nor of the intestines. These symptoms lasted for some days, in spite of the repeated application of large numbers of leeches and of baths. The violence of the symptoms was assuaged by these means; but a few days later the same causes reproduced the same effects, which were combated by similar measures. At present—about a month from the time of the infliction of the injury, and a few days after the third return of the morbid phenomena—the patient, having lost an enormous quantity of blood by the urinary passages, and also by the general and local bleedings, is feeble, pale, and exsanguinated, like persons who have suffered from severe hemorrhages. M. Blandin keeps him in bed, restricts him to a moderate diet, and causes him to continue the baths. He thinks justly that the same symptoms may return, and perhaps compromise the life of the patient. We will notice the final termination of this case; for it is one of a class of cases which are of rare occurrence and of great interest.—*Annales de Thérapeutique*, Nov. 1848.

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

20.—*In what Cases (other than of Contracted Pelvis) is it proper to induce Abortion or Premature Labour?* Professor Paul Dubois.—In the lectures, of which we propose to give an abstract, M. Dubois confines himself to those cases where the safety of the mother is in question, not regarding in any respect whether the child is viable or not. This absolute abandonment of the interests of the infant, when the life of the mother is seriously endangered, although a principle not admitted by many accoucheurs, now finds less and less opposition every day. M.

Dubois lays down the following propositions:—

Pregnancy introduces into the economy numerous physiological and anatomical changes;—

Among these changes some are constant; as the expansion of the uterus, and the vascular development of this organ.

Others are variable; such as the phenomena arising from sympathy between the uterus and other organs.

These changes are generally confined within limits compatible with the general health;—

Sometimes they exceed these limits, and give rise to morbid affections more or less serious, and such that the only resource for the mother's safety is to bring on labour.

Independently of the affections alluded to above, there are other diseases which may develop themselves during pregnancy, and, in addition, be aggravated by the mere co-existence along with them of that state. This aggravation may arise from mechanical conditions, or by way of sympathy, and may render necessary the induction of labour.

A case of severe bronchitis during pregnancy lately occurred in M. Dubois' clinique, where he had resolved to induce premature labour. But a favourable and sudden change took place in the disease, and rendered this operation unnecessary.

The following additional propositions are laid down by M. Dubois:—

1. Premature labour is more certainly indicated and induced with more chance of success, according as the morbid states for which it is resorted to as a cure are more closely connected with the pregnancy, and the necessary concomitant conditions of that state.

2. Further, success is more probable according as the circumstances indicating the operation are likely to disappear on the cessation of pregnancy.

3. It is necessary that the operative procedure be simple, and such as adds no additional danger to that which already exists.

From these propositions we may deduce the following consequences:—That artificial labour will succeed best in those maladies aggravated chiefly by the mechanical changes in the uterus; whilst, on the other hand, the chances of success will be less when the operation is performed for an intercurrent disease. Further, those cases arising from, and depending upon, simply mechanical causes, will be more likely to be benefited than those arising from sympathetic changes.

The first mechanical condition requiring the operation, is *excessive dilatation of the uterus by superabundance of liquor amnii.* In illustration, a case occurring in the practice of M. Duclos (see Bulletin de la Faculté, tom. vi. p. 222) is cited, where artificially-induced labour evidently saved the mother's life. Another interesting case is mentioned, where M. Stoltz had resolved to resort to the same plan under circumstances of the greatest urgency, but nature had completed the work before his arrival at the patient. The waters had flown off, and complete delivery restored the woman to comparative health.

The second set of cases sometimes demanding the operation, are those where, in addition to the pregnant uterus, *the abdomen contains a large tumour.* Thirdly, cases where, from *malconformation of the pelvis and trunk*, there is not sufficient space for the uterus to develop itself. We may remark, however, that in these last sets of cases, premature labour generally comes on spontaneously.

Fourthly, cases of *retroversion of the uterus*, in which it becomes impacted in the small pelvis.

Fifthly, those cases of *uterine hemorrhage* where nothing but the evacuation of the ovum, and the contraction of the uterus, will stop the bleeding.

We now come to another series of cases demanding the operation; and firstly, we mention those nervous diseases which may demand it when they exist to an excessive and dangerous degree, as *chorea, convulsions,* &c. But M. Dubois inculcates extreme caution in such cases, as also in cases of *obstinate vomiting* during pregnancy. Two cases are mentioned in which *cholera* supervened upon pregnancy; in one labour was induced, in the other it came on spontaneously; both women recovered.

There is another series of cases sometimes demanding the operation; namely, where there exists chronic disease, very much aggravated by the mechanical distension of the uterus, as *disease of the heart, of the aorta, asthma,* &c.

Again, it has been proposed to bring on labour in cases where the child has been previously found to *die at some regular time*, before the completion of the ninth month. But this ought to be done only when the infant is still alive and viable, and even then it should be resorted to with reserve, as there may be hope that the disease which caused the death of the child in a former pregnancy, may have now disappeared.—*L'Union Médicale*, November and October 1488.

21.—*Cause of Hemorrhage in the latter*

Months of Pregnancy in Cases of Placenta Prævia. By Dr Scanzoni.—Ever since the time of Levret the occurrence of unavoidable hemorrhage during the three last months of pregnancy has been ascribed to the development and disappearance of the cervix uteri from above downwards—in other words, to the dilatation of the internal orifice of the neck of the womb. This theory Dr Scanzoni considers far from being proved. He believes that in advanced pregnancy the external, and not the internal, orifice of the neck of the womb becomes dilated and expanded over the lower surface, as it were, of the womb itself, and that the internal orifice, composed of contractile tissue, remains undeveloped, and forming the single opening into the cavity of the organ. These remarks may be easily verified in the case of a primipara, or where the nabothian follicles are well developed. In such cases the lips of the lower orifice of the cervix uteri may be seen or felt at some distance from the os, and expanded around it in the form of a circle.

Further, Dr Scanzoni remarks that, during the first six months of utero-gestation, it is the upper half of the womb which is chiefly or almost exclusively developed, in order to enclose the enlarging ovum; that it is during these same six months that the mass of the placenta becomes most rapidly increased in size, and consequently that when inserted, as is usually the case, upon the lateral walls of the uterine cavity, it grows consentaneously with these walls. But, on the other hand, during the three last months of pregnancy, the lower half of the uterus expands very rapidly. The uterus, which up till the sixth month was pyriform in shape, now becomes ovoid. And if the placenta, having attained nearly its full development during the first six months, finds itself implanted over or near the cervix, which is developed during the last three months, then its vessels are liable to be put on the stretch and ruptured, by the disproportionate growth of that part of the uterus on which it is inserted, and hence the hemorrhagy.—*L'Union Médicale*, Nov. 21, 1848.

22.—*Case of Early Pregnancy.* By Mr John Smith of Coventry.—Julia Amelia Sprayson, twelve years and a half old, was delivered on the 16th September of a living healthy child. She made a good recovery, and had a copious flow of milk. She menstruated for the first time when she was in her eleventh year, and a few months afterwards was seduced. Several examples are on record where pregnancy has occurred in very early life; but our author is not aware of any well-accredited case, in this country, of a child at twelve and a half years of age giving birth to a living healthy infant.—*Medical Gazette*, Nov. 3, 1848.

23.—*Puerperal Insanity.* By Dr Webster.—In a valuable communication to the Westminster Medical Society, on the subject of puerperal insanity, Dr Webster entered at considerable length into the statistics of the disease. To illustrate its frequency as compared with that of other forms of mental derangement, he stated, that in 1091 curable female patients recently attacked by insanity, and admitted into Bethlem Hospital, during the last six years, 131, or one eighth of the whole, were puerperal cases; thus showing that the malady is not so unfrequent as many may perhaps believe. Again, as to the curability of this form of mania, more recoveries were reported than in the other varieties of lunacy; 81 puerperal patients having been cured, or at the rate of 61·83 per cent.; whereas the average recoveries during the last twenty years, in all cases of insane females treated at this institution, was 53·67 per hundred. Hence, three in every five cases of puerperal insanity may be confidently expected to get well within a year. In regard to hereditary tendency to mental disease, 51 of the 131 patients were so predisposed, or 39 per cent.; whilst 41 were suicidal, being at the rate of 31 in every 100. Both these peculiarities are of much importance in this malady, and materially influence the disease, its progress, and result. The total deaths in the 131 puerperal patients amounted to six, or four and a half per cent., thus making the average rate of mortality nearly the same as in the other species of insanity, taken collectively. The particulars of the fatal cases, and pathology, next occupied attention, and Dr Webster stated, that three of the six patients who died were suicidal and hereditary; one was only hereditarily predisposed to insanity, but not suicidal; whilst two, it was reported, had neither of these peculiarities; and none ever were insane previously. In addition to these facts, Dr Webster also mentioned, that half the deaths occurred in patients who were not affected longer than fifteen days, the shortest period being eleven days, and all were attacked by insanity within seventeen days after their confinement. In none of the dissections were any morbid appearances ob-

served in the abdomen, but the lungs always appeared diseased, as also the brain and membranes. The details of one autopsy were then described, as a specimen of the diseased changes of structure frequently met with in puerperal mania, the principal morbid alterations being, turgidity of the blood-vessels of the brain and membranes; large, bloody points on cutting the cerebral substance; slight serous infiltration of the pia matter, and considerable effusion of fluid in the fifth ventricle; adhesion and purulent ulceration were noticed in the left lung, with hepatization in other portions of that organ, and in the right lung partial pneumonia in the congestive stage. Although this patient had been delivered only twenty-six days prior to her death, no corpus luteum could be discovered in either ovary, nor any diseased changes of structure in the abdomen. Notwithstanding it appeared rather a digression, the author, in his paper, remarked, that grangrene of the lungs, however rare an occurrence in persons carried off by bodily disease, but without any mental affection, sloughing of that organ was not unfrequent in lunatics. He said so from his own knowledge, and others had also made similar observations, especially in continential asylums for the insane. Dr Webster afterwards alluded to the treatment of puerperal insanity; and considering cerebral irritation, combined with great exhaustion of the nervous system generally, to constitute the true character of this disease, and that it rarely, if ever, proves inflammatory, he thought depletion, or the use of strong antiphlogistic remedies, became very seldom admissible. Leeches appeared in some cases advisable, but even then should be applied with great caution, and their effects carefully watched. As a general maxim, the author advised the same principles to be followed in the treatment of this malady as in delirium tremens, since the nature of the two diseases were somewhat analogous. Opium, camphor, ammonia, and aromatics, with some of the diffusible stimuli, proved excellent remedies, and ought to be chiefly relied upon. When opium fails to procure sleep, so beneficial in this, as indeed, in every form of insanity—then conium, hyoscyamus, or Indian hemp, may be substituted. Mild purgatives, to open the bowels, and sometimes cathartics, should be prescribed; but powerful drastic medicines are seldom advisable. Enemata also are useful, and sometimes with turpentine. When the disease assumes a more chronic form, setons or issues may be made in the neck, &c. The shower-bath, from its strengthening influence, then acts beneficially, whilst tonic remedies, with more nutritious food, become necessary, and prove advantageous; indeed, low diet is very often prejudicial in insane pntients, and it has been long remarked in many asylums, that improved nutriment, especially in lunatics who have previously suffered privations, frequently becomes a powerful means for promoting recovery. In recent cases of puerperal insanity, when the circulation is accelerated, accompanied by evident congestation of the brain, leeches to the temples, and behind the ears, or blisters, might then be applied, and afterwards cooling lotions, with ice to the head; whilst tartar—emetic, or ipecacuanha, in nauseating doses, and digitalis, may be administered for the same object. Besides medical treatment, moral means, with judicious occupation and amusements, when proper for the patient, must not be overlooked, as these very often constitute aperitive adjuncts in the management of the insane.—*Lancet*, Dec. 2, 1848.

24.—*The Causes of Endemic Puerperal Fever.* By C. H. F. ROUTH.—There are three lying-in departments in the General Hospital of Vienna. To one of these, strangers are not admitted. Of the two others, to which only the author's remarks refer, one is destined for the instruction of medical men and midwives, the other for the instruction of midwives only. The average number of deliveries in each department is from 250 to 300 per month. The mortality in the division for midwives and medical men has generally been 30 per month, and has occasionally been 70. In the division for midwives only, the number of deaths has generally been from 7 to 9 per month. The clinical instruction is conducted on precisely the same general plan in the two departments. But the medical men receive also practical instruction in a private course, in which the operations are performed on the dead body of some female; while the midwives receive this instruction by means of the leather phantom.

The frightful mortality in the division to which medical men are admitted became the subject of a Government inquiry, and the number of students in attendance was reduced from forty to about thirty. The mortality, however, remained the same as before. On inquiry, it was found that in other countries

where there were two divisions in the lying-in hospitals, one for midwives, and another for medical men, the mortality was far greater in the latter. The author shows that this difference could not depend on the manipulations of male attendants being more rough than those of midwives, nor to the influence of contagion or infection. He adopts the explanation proposed by Dr Lemelweiss, the assistant physician of that division of the Vienna lying-in hospital in which the great mortality has occurred, namely, that the real cause of the mortality from puerperal fever there was the "uncleanliness of medical men and students in attendance;" their hands being impregnated with cadaveric matter through dissecting, making autopsies, and performing obstetric operations on dead bodies. Dr Lemelweiss recommended all students attending his division of the lying-in hospital not to handle dead matter, or, if they did so, forbad them to make any examinations of the patients till the following day. And he directed every student to wash his hands in a solution of chlorine prior to, and after, every examination made on the living subject. The result was, that the number of deaths was reduced from 30 per month to 7 per month, —the usual average mortality of the division for midwives only.

The author makes some remarks on the modes in which the cadaveric matter may be introduced from the hand of the medical attendant into the system of the woman. He then describes the characters of the puerperal disease, so fatal in the Vienna hospital, with the view of demonstrating its resemblance to the effects of a poisoned dissection-wound. — *Medical Times*, December 9, 1848.

25.—*The Cure of Ovarian Tumours.* By Drs Buehring and Tilt.—Dr Buehring, in defending the total extirpation of dropsical ovaria, justly recalls to mind the results of Dr Southam's investigations, which show that the average duration of life in those affected with ovarian dropsy is, under the best circumstances, not above four or five years; and further, that the ordinary palliative treatment by tapping, far from being without danger, carries off at least one in every five of those on whom this operation is performed for the first time.

Dr Buehring believes that extirpation is the only sure means of curing every kind of ovarian dropsy; all other cures, including those by natural processes, have in many thousand cases produced results far from being so satisfactory as in those numerous cases where the operation of extirpation has proved successful.

Considering that the statistics of total extirpation already show a mortality of only one in every three operated on, it may be expected that, when a timely and early operation is resorted to, the favourable results will be much increased; for the incision through the abdominal parietes will be smaller, and the system will not have been already debilitated by the disease and by the medicines, and adhesions will not likely be already formed. After the operation, too, peritonitis will be much less likely to arise, and will be more easily combated.

When the tumour is large it will be advisable, previously to operating, to have its fluid contents drawn off, so that a comparatively small incision into the abdominal parietes may suffice.

The best seat of incision is towards the side of the abdomen, between the lower ribs and the pectineal line. When the incision is made in this situation, the matter more easily flows off during the recovery.—*Die Heilung der Eierstock Geschwuelste*, Berlin, 1848.

"Ovariotomy," says Dr Tilt, "is a valuable conquest of modern surgery; and I do not suppose it will fall into disuse, provided we continue to give greater certainty to our diagnosis in this complaint. Since the attention of the profession has been particularly given to this subject, much has been done to improve the accuracy of our diagnosis. With the assistance of percussion, the stethoscope, Dr Simpson's uterine sound, and various other additional modes of investigation, let us at at least be permitted to hope that we shall hear no more of pregnant women tapped for dropsy, nor of surgeons doomed to search among the folds of healthy intestines for tumours which never existed. If it were necessary to give a palpable proof of the utility of a good diagnosis in this as in every other disease, I would merely state that those who have paid more attention than others to the manifestations of ovarian dropsy, and who seem to have been the most careful in the selection of their cases, can also, as operators, boast of the greatest amount of success."

The mortality, according to Dr Tilt's table of ovariotomy operations, is one in three.

Dr Tilt enumerates the following practical deductions:—

"1. That small and moderate-sized tumours may be cured by preparations of iodine, given in large doses internally as well as externally, the contents of the cysts being re-absorbed by the walls of the cysts, as in the cases seen by Dr Rayer and Madame Boivin, or else voided per rectum, or per vaginum, as in many recorded cases.

"2. That tapping per abdomen, if employed as a palliative, and without any view towards the radical cure of the patient, should be deferred as long as possible, modern statistics having confirmed Morgagni's opinion of the danger of the operation.

"3. That when the cyst is voluminous, and felt bulging in the vagina, there is a sufficient number of successful cases to countenance the puncture of the cyst per vaginam, an India-rubber sound being left in the cavity of the cyst, and moderate pressure being made to the abdomen.

"4. That the rupture of the monolocular ovarian cysts, with the effusion of their contents into the peritoneal cavity, instead of being attended (as is even now generally supposed) by the most alarming symptoms of peritonitis, is, generally speaking, unaccompanied by any alarming symptom whatever, thus warranting the snb-cutanean incision of the cyst—an operation which has been successfully performed.

"5. That the ulcerative opening of the cyst, after the adhesion of its walls to the abdominal parietes (the new plan of treatment I propose in certain cases of ovarian dropsy) is supported alike by the complete success by which it has been followed in the case I have recorded, and by the success attending a somewhat similar plan of treatment in hydatid cysts of the liver.

"6. That ovariotomy should be reserved for cases of multilocular ovarian cysts, and those monolocular cysts where there is a considerable amount of solid deposit, unless from their diminutive size, or the absence of symptoms, they do not menace the patient's life by their rapid increase."—*Lancet*, Nov. 11, 1848.

V.—MATERIA MEDICA AND THERAPEUTICS.

26.—*Physiological and Therapeutic Action of Atropia.* By MM. BOUCHARDAT and STUART-COOPER.—In the *Retrospect* for 1848, p. 180, we pointed out the advantages of atropia as an application to the eyeball to produce dilatation of the pupil. The authors of this memoir maintain, in addition, its superiority over the other preparations of belladonna for internal use, and have undertaken the present investigation to determine with more accuracy its physiological and medicinal action.

It was already known that rabbits could eat belladonna leaves with impunity; and MM. Bouchardat and Cooper have repeated the experiment in a very conclusive manner. Two rabbits were fed exclusively on belladonna leaves for a month without their health suffering in the slightest degree. The only observable effect was slight dilatation of the pupil.

To determine whether or not this inactivity was owing to the destruction of the active principle in digestion, they placed under the skin of a rabbit, successively at several days' interval, 1 centigr., 5 centigr., and 0·15 gramme (⅓—17 grs.) without giving rise to more than temporary uneasiness. [The authors observe, "Their experiments demonstrate that the atropine cannot be considered a poison to rabbits." We do not think that the experiments warrant this conclusion, inasmuch as the atropine was introduced into the cellular tissue in the solid form. The fluids which it meets with there, having an alkaline reaction, are not adapted for its solution, and hence the absorption of the poison is probably conducted very gradually. Now, a dose of any narcotic, however powerful, which would prove poisonous if taken at once into the circulation, will exert little or no effect if introduced in a very slow and gradual manner. It is very possible, therefore, that if the atropine in the above experiments had been employed in the form of solution, the result would have been different.]

Introduced in the solid form into the cellular tissue of *dogs* in doses of 1½ and 2⅓ grs. it occasioned, after a few minutes, weakness, inability to walk, and shivering. After an hour or two, these symptoms disappeared, and the animals recovered their normal state.

Ten centigr. (1½ grs.) dissolved in some water, with the aid of a drop of muriatic acid, were injected into the crural vein of a moderate-sized dog. Immediately the animal uttered an acute and prolonged cry, then suddenly fell, to all appearance, dead, with the body relaxed and motionless. Five to

six minutes passed without any appearance of life; then he began to moan slightly, and to the great surprise of the experimenters rapidly recovered. This experiment was often repeated with the same result, the dose being so high, in one instance, as 0·30 gramme (4⅔ grs.) Thus, although its action in dogs is very remarkable, its power to destroy life does not appear great. [We postpone the examination of its physiological and therapeutic action on men till next month.]

27.—*The Reaction of Sulphuric Acid on Cod-Liver Oil.*—At p. 240 of the *Retrospect*, the reader will find Mr Hockin's proposal to use sulphuric acid as a test for the purity or presence of cod-liver oil. Mr Husband states that the violet tint produced by adding a few drops of the acid to it on a porcelain slab, is not peculiar to the cod-oil, but is common to it, and the hake (*merlucius vulgaris*) liver oil, and probably the oil obtained from other species of the order *malacopterygii*. The violet colour does not indicate a large quantity of iodine.—*Ed. Pharm. Jour.*—*Pharm. Jour.* Nov. 1, 1848.

28.—*On Drug-Grinding.* By Professor Redwood.—Although the details of this process interest the pharmaceutist more especially, they also demand our attention, as the operations connected with the pulverization of drugs affect their composition and strength, and consequently their medicinal power. The process is generally conducted by persons who make it their special business, and who are called drug-grinders; their establishments are called drug-mills, and the implements used are the stamping-mill and the grinding-mill. The first of these machines resembles in its action the pestle and mortar, and effects comminution by *contusion;* it is used for tough substances, as orchis root and nux vomica. Their passage through this mill is preliminary to their introduction into the second, in which the great majority of drugs are reduced to powder by *trituration.*

Before placing them in the mill, the drugs must be thoroughly dried, and for this purpose they are cut into small pieces, and placed in a room heated to 120° by means of a steam-pipe. It is often necessary to continue the drying process for a long period, during which the drugs lose various volatile ingredients, in addition to their hygrometric moisture; and if the efficacy of the medicine depend upon their volatile parts, it must suffer deterioration. Thus, myrrh, valerian, cardamoms, cinnamon, and spices, generally lose some of their efficacy in being reduced to fine powder. It is possible that other drugs than those mentioned may suffer injury in drying.

In the entire operation of grinding, drugs undergo a loss of weight, occasioned by the evaporation of water and other volatile constituents in the drying-room, and by the waste from dissipation in the form of dust, and from adhesion to the apparatus, in the grinding-room. It must be obvious that the amount of loss thus sustained will not be uniform; it will vary according to the nature of the substance under operation, and even with substances of the same nature, the loss will depend upon the quantity operated upon at a time, and their state of dryness when sent to the mill. The rule adopted among the London drug-grinders, has been to have allowed to them four pounds on every hundred-weight of the substance ground, for loss in the process. Thus, if a hundred-weight of rhubarb were sent to the drug-mills, 108 lbs. of powder, including the gruffs, would be returned. It matters not what the substance is, or the condition it might be in, the drug-grinder would be expected to produce 108 lbs. of powder from 112 lbs. of raw material. The same allowance would also be made, unless otherwise agreed between the parties, for all other drugs which required drying previously to their being powdered. This is called the four per cent. system, four pounds being the allowance for loss upon every hundred-weight of substance powdered. But the fact is, that the average loss is more than four per cent., and with some drugs, as rhubarb, aloes, opium, gentian, jalap, and squill, it is much higher, reaching in these medicines to fourteen and sixteen per cent. Now, the difference between the four and fifteen per cent. is made up by the drug-grinder, and it cannot be reasonably supposed that he will use good jalap or gentian for this purpose. It is saw-dust which makes up the difference. Unfortunately it is the weakest and worst drugs which suffer the greatest loss, and so receive the largest admixture of saw-dust. Hence an evident cause of disparity in the strength of powders. Worse than that, the system sanctions the practice of adulteration, and affords facilities for those who are so disposed to pursue a ruinous competition in price at the sacrifice of quality. The remedy for this evil is obvious; the grinder ought to be allowed the entire loss which the drug sustains in passing through his hands.—*Pharm. Journ.*, Nov. 1, 1848.

29.—*Application of the Tincture of Iodine to the Pustules of Small-pox.* The author affirms, that the development of the pustules may be arrested, and cicatrices prevented, by painting them with the tincture of iodine once every day during the first five or six days of their appearance. The swelling of the skin diminishes, the pustules disappear with little or no suppuration, and the crusts which remain fall without leaving any traces. This is a cleaner application than the mercurial ointment.—*British American Journal.*

30.—*Report of the Committee of the American Medical Association on Indigenous Medical Botany.* Dr DAVIS, *Reporter.* —RUMEX; *Water or Yellow-dock.* Several species of rumex possess medicinal properties, and are used indiscriminately in the United States. The species in most common use there are the crispus and obtusifolius; they are both indigenous to Great Britain. The root is the part employed, and has ascribed to it astringent and slightly tonic properties; but the committee conceive its chief value to consist in its alterative and gently laxative qualities. They recommend it as a substitute for the expensive sarsaparilla, over which its laxative power gives it a decided advantage. It is thus especially adapted to those cases of venereal, scrofulous, and cutaneous diseases, accompanied by torpid bowels and inactive secretion of the abdominal viscera.

It is best given in decoction, made by boiling one ounce of the dried root in a pint of water. Of this, one or two fluid ounces may be given three or four times a day. It also forms a convenient menstruum for the administration of the preparations of iodine, mercury, &c.

The LYCOPUS VIRGINICUS, *or Bugle-weed*, has been known for many years to the physicians of the United States, on account of its astringent qualities. It is also a sedative to the vascular system, and has a marked power in allaying irritability. The committee strongly recommend its use in internal hemorrhages, diarrhœas, and chronic coughs. It should be gathered in flower, and carefully preserved in substance. The best form of administration is that of infusion, of which from a gill to a pint may be given daily.—[Perhaps the *Lycopus Europœus*, or common gipsy wort, possesses similar properties.]

CIMICIFUGA RACEMOSA—*Actæa Racemosa—Black Cohosh.* The root of this plant has been used to a limited extent in America for many years; but, from the observations of the committee, it appears that the prevailing opinions in regard to its action are entirely erroneous. It has been termed by different authors a stimulating tonic, diaphoretic and expectorant. According to the committee, the drug is neither a stimulant or sensible promoter of the excretions, but a pure and direct sedative. It uniformly lessens the force and frequency of the pulse, soothes pain, and allays irritability; in large doses producing vertigo and dimness of vision.

The therapeutic applications of such a drug are, of course, extensive. The committee recommend its employment, especially in acute rheumatism, in pulmonary affections, in chorea and hysteria. The root yields its specific virtues more perfectly to alcohol than to water. The tincture is prepared by macerating four ounces of the root in a pint of diluted alcohol, of which from thirty to sixty drops may be given every one, two, four, or six hours, according to the nature and severity of the case, or until its physiological action is manifest.

[Should further trials confirm the above statements, this plant will form an interesting addition to the list of pure sedatives derived from the vegetable kingdom, of which monkshood may be taken as the type.]—*Transactions of the American Medical Association*, vol. i. p. 345, et seq.

31.—*On Papaverine, a New Base in Opium.* By Dr GEORGE MERCK.—Opium appears to be an inexhaustible source of new substances, especially of those which possess basic properties. Five such substances have already been discovered in it, and have been established as peculiar; and Dr Merck has now succeeded in discovering, while examining in the laboratory at Giessen a quantity of accumulated residues of preparations of morphia, a new basis, which he calls *papaverine.*

This base crystallizes from spirit of wine in confused, aggregated, acicular, white crystals; from ether they are obtained somewhat larger. In cold spirit of wine it is not easily dissolved. It is more soluble in boiling spirit, from which it crystallizes on cooling. In cold ether it dissolves but indifferently; from a boiling solution, crystals precipitate when cold. In water it is insoluble. Slightly reddened litmus paper is rendered blue by the solution. When the crystals are treated with concentrated sulphuric acid, they become blue.

With acids, papaverine forms salts, which for the most part are difficultly soluble in water; the hydrochlorate is particularly distinguished by the facility with which it crystallizes.

The formula of papaverine is, C_{40} H_{21} NO_8.

This new substance differs from the bases hitherto discovered in opium, and it is chiefly the salts and their unequal oleaginous and crystalline nature which characterise it, and distinguish it from narcotine, to which the pure base has otherwise some resemblance.—*Annalen der Chemie und Pharm.*, April; and *Pharm. Journ.*

32.—*Gutta Percha Membrane, for protecting the Skin against the Contagion of Animal Poisons.* By WILLIAM ACTON, Esq.—The author states that he has been engaged in performing various experiments with solutions of gun cotton, gutta percha, and caoutchouc, with a view of testing their property of protecting the surface from the influence, by contact of contagious poisons, and the following are the conclusions at which he arrived:—1. That a solution of gun cotton, when dry, corrugates the skin too much to be available for the purposes required. 2. That gutta percha alone is devoid of elasticity and sufficient adhesive quality, whilst the solution of caoutchouc wants body and is too sticky; but that, 3. The compound solution of caoutchouc and gutta percha possesses the requisite qualities to fulfil the purpose required. It is prepared by adding a drachm of gutta percha to an ounce of benzole (the volatile principle of coal naphtha), and ten grains of India rubber to the same quantity of benzole, each being dissolved at a gentle heat, and then mixed in equal proportions. The author has employed this compound in painting the surface surrounding a chancre with the solution, and found that the acrid secretion had no effect upon it when dried, and warm or cold water may be applied with impunity. He considers that it may be employed advantageously in many and various ways, as in protecting the hands during *post-mortem* examinations, in preserving the cheek from excoriation in gonorrhœal ophthalmia, and in covering the parts contiguous to a sore where water-dressing is the application, &c. A letter from Mr Quekett to the author, states the results of that gentleman's examination of these several solutions under the microscope. A dried film of the compound is described by him to be perfectly elastic and free from perforations, though in many parts less than the $\frac{1}{500}$ of an inch in thickness.

33.—*Oil of Turpentine in Neuralgia.* By Dr LERICHE, of Lyons.—The author relates cases of neuralgia successfully treated by the exhibition of small doses of essence of turpentine. The quantity daily administered to the patients did not exceed twenty minims.—*Journ. de Méd. de Lyons.*

VI.—DIETETICS, HYGIENE, AND MEDICAL POLICE.

34.—*Deleterious Effects of Mercurial Vapours in an Hospital Ward.* By M. LEFEVRE, physician of the Naval Hospital of Rochefort.— One of the fever wards of the hospital under M. Lefevre's care, which is about 48 yards long, 13 broad, vaulted roofed, and of a capacity of about 7800 cubic feet (English measure), became in the summer of 1846 so infested with bugs that the patients could not enjoy the least sleep. It was not till the end of the year that it was resolved to empty the ward, and adopt measures for removing this nuisance. It was resolved to destroy the bugs by mercurial fumigation. For this purpose, on 12th November, the beds having been collected in groups at various parts of the ward, the stoves of the room were heated so as to raise its temperature to that of from 68° to 77° Fahr. All the openings into the ward having been closely shut; two kilogrammes [nearly 4½ imperial pounds] of metallic mercury were divided into five portions, which were placed in as many crucibles, heated by chauffers at nearly equal distances, and near the beds. The heat was continued till all the mercury was volatilized, and to favour its diffusion through the ward, its internal temperature was maintained at an equable high temperature day and night. When it was supposed that the mercury had acted long enough to destroy all the bugs, with their ova and larvæ, the ward was again heated several times, and freely ventilated. After twenty or twenty-five days of alternate heating and ventilation, the ward was cleaned anew, and was then thought fit for the reception of patients.

On 13th December, at three P.M., forty-three convicts affected with various disorders were placed in the ward. The weather at the time was rather cold, and the heat of the ward moderate. On the morning of the 15th, *i. e.*, thirty-nine hours after the location of the patients there, M. Lefevre was informed that seve-

ral of them were complaining of an unusual sense of heat in the mouth, the gums were red and swollen, and there was an incessant desire to spit. On the 16th, the number of cases of ptyalism was increased, and the ward was forthwith evacuated. Nevertheless, on the 18th, thirty-nine of the forty-three men were affected with mercurial stomatitis of various degrees of severity. In some the gums and muscles of the cheeks were ulcerated, the lips and tongue swollen. There were in some of them, swelling of the submaxillary, sublingual, and cervical glands, looseness of the teeth, pain in the ears, &c. The salivation was abundant, and the breath fœtid. Several had diarrhœa and tormina.

The greater number were cured by ordinary means in fifteen to twenty days. In some the affection was of longer duration, and one returned to hospital with a relapse. In this man the teeth remained loose, and several of them were lost.

The four men who alone escaped the action of the mercury, were the subjects of various diseases. They were placed in different parts of the ward, and as much exposed to the mercurial vapour as their less fortunate neighbours. Five superintendents, who remained in the ward only during the night, equally escaped, as well as the convicts employed as nurses, and one sister of charity, who all had opportunities during several hours of the day of breathing a purer air than that of the ward.

After the removal of the patients, attention was turned towards the means of ridding the ward of the remains of the mercury. For this purpose, it was again heated to about 70° Fahr., and abundance of chlorine disengaged in it during several days. The bedding was then beaten in the open air, and all the beds, windows, and all the surfaces which might retain any mercury, carefully washed. The walls were then white-washed with lime, and the beds and furniture repainted. The ward was shut for three months, and freely ventilated whenever the weather permitted. On the 4th of March 1847, the patients were replaced in it in small numbers at first, and no more mercurial effects were experienced; *but the bugs were not destroyed*—several were found alive during the various cleansing operations, and now they have repropagated so abundantly as to have again infested the beds.—*Journal de Médecine et de Chirurgie Pratiques*, October 1848.

35.—*Observations on the injurious Effects of the Emanations from Houses painted with Arsenite of Copper (Scheele's Green).* By Dr BASEDOW of Merseburg.—The author had in 1846 published an essay on the subject, and in September 1847, in consequence of a memorial from him, the government forbade the application of this colour to paper-hangings or wall-painting under a penalty of from five to fifty dollars. The authorities invited the district physicians to communicate to them any cases which might have come under their notice, and also to ascertain the opinion of the apothecaries on the subject. The returns thus obtained were submitted to the inspection of the author. Of sixteen district physicians who were consulted, eight had met with such cases, eight had not. Of the former eight, five had made their observations after their attention was drawn to the subject by the published cases. All the apothecaries who took the subject into consideration agreed, that under the conditions pointed out by the author as favourable to it, the occurrence of noxious emanations from this pigment was not merely a possible, but a necessary occurrence. Of two chemists specially consulted, one considered the evolution of arsenical vapours from the Scheele's green as unavoidable, and always injurious to health; the other only rejects as erroneous the author's supposition, that cacodyl or alcarsin is formed, and considers the application of the colour to paper-hangings (*tapeten*) as more dangerous than its use as a paint upon plaster.

Of the physicians who were consulted, Dr Schmidt of Rossla appears the most frequently to have recognised these emanations and their pernicious effects, and he gives an account of their action on the inhabitants of such contaminated dwellings, agreeing with that of the author. These effects consist chiefly, according to him, in pseudo-rheumatic pains, which come and go without presenting any other rheumatic phenomena, and without regular crises, and are not removed by any well established means; on the contrary, more frequently, even when the source of mischief is withdrawn, they leave, like other metallic poisons, permanent impairment of the general health. According to him, the most common forms of affection produced in this way, are flying neuralgic pains in the head, throat, and breast, faintness, hoarseness, dry cough, general lassitude and emaciation, and paralytic states of individual organs, especially weakness of vision, and particularly marked eruptions. All the inhabitants of such dwellings do not always suffer in an equal degree. Upon these observations the author remarks, that in such pseudo-rheumatic affections

in adults, the urine is always superabundant, pale and watery, as in hysterical attacks, and may lead the case to be mistaken for *diabetes insipidus*. In children, where dyspepsia commonly occurs, the stools are sometimes fluid, sometimes very costive, and always deficient in bile. In older children, the complaints which they make of various sorts of pains, especially in the legs, appear to depend upon spinal irritation. They are capricious, and in the intervals often placid, and when they are exposed to the vapours for years they acquire remarkably old features. Rachitic appearances in their growth have not been observed. In those who have been chronically affected by the arsenic, an irritable frame of mind is always observed. When all the inhabitants of such apartments do not suffer equally, this depends upon the employment of some keeping them more out of the dwelling-house, or from a greater individual power of resistance. The periodic exacerbation of the injurious effects, is in general explicable by the more hygrometric state of the atmosphere, by cooking in the house, and the washing of the floors, all of which tend to increase the emanations. It is remarkable that such colours often stand a long time, and then the action of the air and the emanations commence suddenly, as in the putrefaction of organic matters. But apartments with thick coatings of such arsenical colours have a smell, even when the walls are quite dry. Sudden alternations of temperature, moisture in the atmosphere, cooking in the rooms, the exhalations and sweat of those sleeping in them, supply moisture to the walls. Recently, on one occasion, the author perceived the smell of arsenic in a perfectly dry room with a green paper, and he found, on more particuler inquiry, that the day before much electricity had been evolved in it from a strong machine. This recalled to his recollection what an inhabitant had told him, that in a green room of his, the smell was observed only when there was much thunder or lightning. According to the author's observations, also, it is very injurious for the lungs, when, even in a dry room, persons sleep so near the wall that their breath comes directly in contact with it.

Solar light appears to play a part in the decomposition of the colour; for the author found the arsenical odour always strongest in apartments with an east or south exposure, and he supposes that it is probably from the non-admission of light that those experiments have failed, which tried to demonstrate by re-agents the arsenial nature of the emanations from shut boxes lined with green paper, and kept constantly moist.

Besides the cases communicated by the district physicians, as noticed above, the author appends to his essay a number of cases observed by himself, to afford proof that, from the employment of green arseniferous pigments, cases of poisoning by them almost occur daily, and he calls attention to the yearly increase in the amount of such colours used, which are applied rather extensively, not only to paper hangings, wall painting, floor cloths, table covers, verandahs, window blinds, screens, tin plate wares, fruit baskets, sugar canisters, cans, nursery stone wares, &c. &c., but also to materials of clothing; for, according to an apothecary, M. Jonas, there are samples of green calicoes which are so covered with arseniate of chromium, that thirty yards will yield as much as half a pound of arsenious acid; so that, when a small scrap of this is burned at a candle, the whole apartment becomes filled with arsenical vapours. — *From Casper's Wochenschrift*, 27—29, 1848, *in Schmidt's Jahrbücher*, No. 9, 1848.

[Duflos in his treatise on hygiene (Die wichtigste Lebensbedürfnisse, &c.) casually alludes to the deleterious action of Scheele's green used as house paint, and mentions that in Reichenstein in Silesia, an arsenical sand has been commonly employed for making mortar, which, under the combined influence of the lime and moisture, ought, on chemical considerations, to evolve arseniuretted hydrogen, yet the families living in them preserve their health well, and therefore its effect must be trifling. We suspect that Dr Basedow has made a hobby of this subject, and is riding it rather hard.]

36.—*Typha latifolia as an Alimentary Substance.*—The *Typha latifolia*, L., and *T. Augustifolia*, L., [greater and lesser Reed mace], are well-known reeds which grow spontaneously and abundantly in many of the marshes of France, and sometimes form diminutive forests there. A recent account confirms a statement long ago made by Dr Clarke, and now forgotten, that the young shoots, soon after their development on the rhizome, are eaten with great avidity by the Cossacks, as we do asparagus, and they have been called Cossacks' asparagus. They are gathered chiefly in spring. The rhizome itself, which is large, fleshy, and feculent, is said to be eaten by the Kalmucks. As the plant grows wild and abundantly, and could be easily propagated, it might be more extensively used.—*L'Union Méd.* No. 136.

[According to Lecoq, *Jour. de Chim. Med.* iv., the rhizomes yield in the month of December about an eighth of their weight of fecula, which, with boiling water, forms a jelly like that from jalap. This starch diminishes in spring as the shoots form.]

37.—*The Fresh Water Chestnut.*—This is the fruit of *Trapa natans*, L., and was at one time cultivated in France, and extensively in Belgium. It is easily propagated by throwing the nuts into any marshy place or pond. The growth of the plant is not injurious to fish in the water. Some fine specimens were shown at a recent agricultural exhibition in France; and attention is directed to this plant as a resource in times of scarcity. In many of the departments of the west of France and of Italy, these nuts are eaten like chestnuts, roasted or boiled.—*Gazette des Hôpitaux*, No. 137.

[Though not indigenous to Britain, there seems no reason why it might not be grown here.]

38.—*Mortality among the German and Irish Emigrants to America in* 1847.—The condition of the German and Irish emigrants prior to their embarkation, and during their transit of the ocean, was in most instances conspicuously different. Whilst the former were generally robust, and well provided on the passage with the means of subsistence, and observant of cleanliness and ventilation,—the latter were in most cases enfeebled from the want of sustenance, and on ship-board, destitute of supplies of wholesome food, depressed in mind, clothed in filthy garments, and crowded and confined in air rendered pestiferous by the excrementitious matters eliminated from their own bodies. In contrasting the hygienic circumstances in which the two classes of emigrants were placed, it is easy to account for the greater amount of sickness and mortality which occurred in one class than in the other. It is said, that of the admissions of emigrants into the hospitals and almshouse of New York, the Irish exceeded the German in the proportion of about ten to one; and we are told, that the Irish in British ships suffered more than those in American.

The Montreal Immigrant Committee, in their report for 1847, state, that "in no year since the conquest has Canada presented such fearful scenes of destitution and suffering." "The year 1847 has been unparalleled for the amount of immigration to Canada; near 100,000 souls have left the British isles for these provinces the past year,—over 5000 of these died on their passage out, 3389 at Grosse Isle, 1137 at Quebec, 3862 at Montreal, 130 at Lachine, and 39 at St John's, making in all at these several places 13,815. How many have died in other sections in Canada East cannot now be known, nor, indeed, how many have perished in Canada West; but coupling all those who have perished with those who have passed into the United States, Canada cannot now number 50,000 souls of the ninety odd thousands which landed upon our shores. In sketching a retrospect of these terrific scenes, the Montreal committee forcibly remark—"From Grosse Isle, the great charnel-house for victimized humanity, up to Port Sarnia—along the borders of our magnificent river, upon the shores of Lakes Ontario and Erie, and wherever the tide of immigration has extended, are to be found the final resting-places of the sons and daughters of Erin—one unbroken chain of graves, where repose fathers and mothers, sisters and brothers, in one commingled heap, without a tear bedewing the soil, or stone to mark the spot. Twenty thousand and upward have gone to their graves, and the whole appears, to one not immediately interested, 'like a tale that is told.'"

The disease of which the emigrant passengers, and in many instances the officers and crews of ships, perished at sea, and of which a great number were ill on their arrival in the United States and Canada, was typhus in its genuine form. In some ships dysentery, small-pox, and measles swelled the amount of mortality, and added to the number of sick that reached the ports of destination.—*Trans. Amer. Med. Assoc.*, vol. i. p. 111.

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CONTENTS.

I.—MORBID ANATOMY, PATHOLOGY, AND PATHOLOGICAL CHEMISTRY.

39.—*On the Relation of Cholera to Malarial Fever.* By Dr CHARLES W. BELL, Manchester.—The circumstances under which Dr Bell observed this disease in this country and in Persia, have been such as to impress him with the idea, that it is a variety of the malarial fevers, presenting the worst or (so called) *congestive* type of these diseases, in which the cold stage is prolonged and violent, and becomes in itself a source of danger. He describes his experience of cholera as follows :—

"After becoming acquainted with cholera, under very favourable circumstances, in Edinburgh in 1832-3, and in London in 1833-4, it was my lot to be stationed for several years in Persia, a country situated, both geographically and in point of climate, midway between India and Europe, and there I had the opportunity of observing closely the first approaches of the identical cholera which is now sweeping irresistibly towards us. The disease was there ushered in by a regular succession of epidemics, commencing in a fever appa-

rently continued, but by and by assuming more the character of a remittent, and this very gradually changed to an intermittent or quotidian type; of this the cold stage gradually became prolonged, and assumed all the appearances of an attack of cholera; and then came the cholera, as it has every where been known, without any *obvious* stages or intermission. This again in its turn disappeared, and the epidemic resumed the character of remittent and continued fever for a time. These various changes occupied a period of eighteen months."

Dr Bell thinks he has observed a remission in the collapse of cholera itself, about the eighteenth or twentieth hour from the commencement; but he does not lay much stress on this observation. The evacuations from the bowels he considers as the most usual and natural relief to that capillary congestion which is believed to be present both in this disorder and in intermittent fever. The consecutive fever of cholera is, according to the author, properly a remittent of quotidian type, which, when the disease exceeds the limit of three days, supplants the congestive form.

In this attempt to establish a relation between cholera and the quotidian intermittents, the author admits the difficulty which arises from the slight tendency displayed by cholera to continuance or recurrence. He thinks, however, that he has observed in other varieties of quotidian fevers a similar tendency to run a course of exactly three days; and indeed, from his own observation, seems disposed to regard this as a general law of quotidian intermittents.

Dr Bell thinks that most of the epidemics of cholera will be found to have been ushered in by such a course of fevers as he has described in regard to Persia; and likewise to have been attended by an epidemic constitution, in which most other diseases tend to assume a congestive type. He has been enabled to trace the progress from personal observation of it in several places between Persia and this country, and has found it to be preceded and accompanied by these characteristic forms of disease. In particular, he regards the *relapsing fever* of this country, which was first accurately observed in Edinburgh in 1843, and has ever since prevailed in various localities, as a modification of one of the forms of *precursory* epidemic observed by him in Persia.

"In 1841, a fever of remittent and quotidian intermittent type broke out in Scinde, where it destroyed many of our best troops, alternating occasionally with cholera. Both proved severe in Caratchee; it spread through Beloochistan, and appeared at Bunder Abbas in the Persian Gulf early in 1842; also at Yezd. It thence spread westward to Shiraz, and northwards towards Ispahan and Tehran, proving every where extremely fatal; but its further progress to the northwest was arrested for a time, on the high grounds of Sultanieh, by the setting in of winter. Next spring it resumed its course, overspread Aderbijan, Erivan, Georgia, and the whole shores of the Caspian, crossed the Caucasus, and was very fatal in Veronish in the centre of Southern Russia. I here lost sight of it in November 1843, but was not a little surprised to find it again in December, on my arrival in Edinburgh. It was there modified, it is true, and displayed less of an intermittent character, but was fully characterized by other symptoms, especially the tendency to relapse, and the pale tongue. Late in 1844, it appeared in Manchester, especially in Ancoats, where it was very severe. In 1845, it became epidemic in Liverpool, somewhat more modified in type, and the fever of 1846-7 in Manchester still preserved much of its peculiarities, especially in the frequency with which it was accompanied with jaundice, and in running a course of seven, fourteen, or twenty-one days, and relapsing at these intervals."

The Persian epidemics were exceedingly varied in character, so much so that it appears scarcely possible to recognise some of them as fevers at all in any ordinary sense of the word. The disease appeared as tic doloureux, or intermitting hemicrania; paralysis, general or partial; apoplectic and epileptic symptoms; shivering ague, or ague without shivering.

"By and by this form was more frequently accompanied with vomiting, purging, and cramps, so as to constitute, in every respect, an intermitting cholera; whereas others had attacks resembling cholera in every particular, except that, instead of the more usual exudation from the bowels, this took place by the abundant outpouring of the fluid of the blood from the skin, or sometimes into the cellular texture, either of whole or part of the body, producing either partial or general dropsy in the course of a few hours. This latter form was more especially frequent in infants and children. Sometimes, too, this serous exudation occurred in a form not less rapidly fatal than the worst kind of cholera, by producing suffocation, in consequence of sudden œdema of the

lungs. All these, however, and various other anomalous affections, at length gave place to cholera in its ordinary form, with vomiting, purging, and spasms, as little marked by intermission as it ever is, and differing in no respect from that I had witnessed in Edinburgh and London. Its temporary disappearance was then followed by the return of intermittent fever."

The author thinks that cases very similar to these have been occurring in Manchester since the middle of September last.

The treatment suggested by Dr Bell for cholera, as well as the whole of the affections to which he believes it to be allied, is the combination of quinine and iron, which he has found remarkably useful, not only as an anti-periodic, but in obviating congestion of the internal organs. He thinks bloodletting to be only useful when the disorder has not fairly commenced, and injurious when performed at a later period.—*Prov. Med. Journ.*, Nov. 29, and Dec. 13, 1848.

[The details of Dr Bell's experience of individual cases in the original papers are most curious and interesting; and we strongly recommend their perusal to those interested in this subject as the fruit of a large experience in cholera, in a region little known, in a medical point of view, to most Europeans. We think, however, that the author has decidedly overstepped the limits of sound induction in connecting together in one class diseases differing so much from each other as those he describes. The number of disorders which are admitted as manifestations of the precursory epidemic fevers is so great, and their kind so various, that we scarcely think it possible that cholera could at any time have invaded Persia without being heralded by some of them; and we cannot help thinking that the author has been betrayed into the recognition of analogies far too vague and indefinite when he associates apoplectic, paralytic, neuralgic, and dropsical attacks with ague, and all of these with cholera.

Suspending our judgment, however, as to the Persian epidemics, we must say, with more confidence, that we are convinced of the fallacy of Dr Bell's ideas as to the relapsing fever of this country. The epidemic of Edinburgh in 1843 presented no resemblance whatever to a fever of "remittent or quotidian intermittent type," such as the author seems to have seen in Persia; nor did it resemble a malarious fever at all, except in the single circumstance of periodical relapse; and even here there was a marked difference, seeing that the relapse was not in the slightest degree influenced by the administration of quinine, as ascertained by numerous trials in Edinburgh—(see Dr Robertson's paper, in *Monthly Journal* for November 1848). The origin of this fever by contagion was, we think, placed beyond all doubt by the researches of Dr Henderson and others—(*Edin. Med. and Surg. Journal*, 1844); and its connexion with endemic causes or with malaria cannot be said to be established, or even rendered probable.

Neither can we admit that the relapsing fever has at any period of its history shown the slightest tendency to pass into the form of cholera. We think it satisfactorily proved that it has existed in Ireland during the last half century at least—(see Dr Robert Paterson's article in *Edin. Med. and Surg. Journal*, Oct. 1848, or *Monthly Retrospect*, Nov. 1848); and during this period it has made several visits to this country, not one of which has been immediately followed by cholera. The epidemic of 1843 presented a remarkably fixed and definite character: it subsided without a trace of choleroid affection. It reappeared in Edinburgh, with nearly the same characters, in 1846-7, reached its acme without variation, and again subsided, without having ever suggested to any one, so far as we are aware, the idea of its being either cholera or quotidian intermittent. Finally, when cholera broke out in October 1848, the relapsing fever could not be said to exist in an epidemic form, and such cases of it as did occur in no way varied from the ordinary type. We think, therefore, that any supposed analogy of this fever, with intermittent on the one hand, or cholera on the other, is, so far as this country is concerned, entirely unwarranted by observation.—W. T. G.]

40.—*On the Contagion of Cholera*, by M. Swaagman, and Dr M'Cormac. In an account of the epidemic cholera of Groninguen, M. Swaagman cites the following facts, favourable to the contagionist:—1. The hospital required only two nurses, both had cholera. 2. It happened that in two large families where the mothers were the subjects of the disease, one child only of each was attacked, and in both cases it was the child that lay with the mother. 3. The disease was observed to attack a great number of members of certain families, although they lived in very different quarters of the town. 4. In a neighbouring hospital, no

case occurred until a poor traveller leaving Groninguen, and who was seized with cholera *en route*, was admitted into the establishment, where he died. Immediately afterwards several of the inmates were seized with cholera.—*Annales de la Soc. de Méd. d'Anvers*, Dec. 1848, and *L'Union Méd.*, Jan. 6, 1849.

Dr M'Cormac observes, "Without going into particulars, I have witnessed so many instances of the apparent transmission of cholera from person to person, that I cannot entertain a doubt as to its communicability. I have known it, again and again, to ensue after contact, and of those daily exposed, a much greater number sickened than of persons otherwise circumstanced. Whole families among the poor, one taking it after the other, would sicken and perhaps perish. A multitude of cases would proceed from a very few poor houses, a single lane or alley, while in habitations of persons in easy circumstances few contracted the disease, and still more rarely did it spread. I do not indeed see how the propagation of the disease is to be explained, save on the presumption of its communicability. Instances are within my own knowledge, of individuals labouring under cholera infecting the people in whose houses they had lodged, and through which they passed. At the same time the risk incurred by healthy, vigorous, temperate persons, even along with daily intercourse with the sick, is comparatively small. The circumstance of thirty-one successive cases of cholera occurring in and confined to, the Belfast workhouse, after its introduction into that establishment by a man labouring under the disease, from Edinburgh, seems sufficiently conclusive as to its contagiousness."—*Directions for the Management of Cholera, by H. M'Cormac, M.D., Belfast*, 1848.

41.—*Congenital Absence of the Globes of both Eyes.* By Dr A. B. WILLIMAN.—The subject labouring under this singular deformity, was presented to Dr Williman's notice a few months past by her owner, Dr Mazyck, at his plantation on the Santee river. She is about nine years of age, the last child of a black woman who has reared a remarkably fine and healthy family, and presents in this relation an exception to that law of hereditary transmission which establishes resemblance between parent and offspring, and most evidently observed in the features of the countenance. At birth the infant was seen by Dr Mazyck, and in a few days after by Dr James Moultrie, and these gentlemen give the following information in relation to the case at that early period. Nothing unnatural was observed in the appearance of the face, except the firm adhesion of both eyelids on their respective sides when the attempt was made for the first time to open them. As the child appeared to suffer slight pain, no violence was used, and at the end of a week or ten days there occurred a spontaneous separation for a few lines distance along the tarsal margins; very gentle force exercised with the fingers soon completed the rupture of the remaining adherent portion, and the result disclosed the absence of the globes above mentioned. Ever since the period here alluded to (about two weeks after birth), the eyelids have remained separated, and we may state from further recent examination, that these appendages, which are perfect in their formation, and furnished with puncta and eyelashes, are lined as usual with a healthy conjunctiva. This membrane, extending throughout the entire inner surface of the orbit, was reflected rather firmly over a more resistant tissue deeply situated (perhaps the rudiments of a sclerotic coat), although beneath this no protrusion was visible, and a probe passed over its surface could detect no openings. The existence of the orbicular muscles is evident, as their contraction rather inverts than elevates the lids, from the want of that point or fulcrum which is afforded by the globes in their normal state. It seemed also clear, after an examination of several days, that in both cavities there existed the secretion of a fluid resembling the tears, the lachrymal gland being in its normal position, and easily felt by slight pressure. The orbitar margins are well developed below, but at their superior external portion appear somewhat deficient, giving to the superciliary ridges a slightly depressed form, and to the whole forehead a contracted character, often observed in persons deficient in intelligence. The girl, however, with the loss of the most important of the organs of sense, manifests a singular degree of intelligence in many others. Her disposition is cheerful; hearing is quite acute; and she possesses a remarkable power of distinguishing bodies by the touch, although not to that extent, as has been pretended, of forming ideas of colour in this manner.—*Charleston Medical Journal.*

42.—*On Sanguineous Perspiration.* By DR SCHNEIDER. It has often been a question whether, under any circumstances, blood is ever mixed with the fluid of perspiration in human beings. Dr Schneider remarks that he has several times observed

the phenomenon. He mentions having been once summoned to a healthy man, fifty years of age, who, for a period of twelve hours in succession, had travelled on foot: during the journey he had perspired much in his feet; and, on examining them at the end of it, they were found covered as high as the ankles with a sanguineous perspiration, which had also soaked into and stained his stockings. In another case of a healthy young man, Dr S. mentions having noticed that, after a violent exercise, the perspiration beneath the arms was of a bright red colour; and he quotes a similar case from Hoffman.

In proof that the perspiration over the whole body may also be of a sanguineous character, he mentions one case in which it had been observed in a delicate man after copulation, and then quotes the following still more remarkable case from Paulini. While surgeon on board a vessel, a violent storm arose, and threatened immediate destruction to all. One of the sailors, a healthy Dane, thirty years of age, of fair complexion and light hair, was so terrified that he fell speechless on the deck. On going to him Paulini observed large drops of perspiration of a bright red colour on his face. At first he imagined the blood came from the nose, or that the man had injured himself by falling; but, on wiping off the red drops from the face, he was astonished to see fresh ones start up in their place. This coloured perspiration oozed out from different parts of the forehead, cheeks, and chin; but it was not confined to these parts, for, on opening his dress, he found it formed on the neck and chest. On wiping and carefully examining the skin, he distinctly observed the red fluid exuding from the orifices of the sudoriparous ducts. So deeply stained was the fluid, that on taking hold of the handkerchief with which it was wiped off, the fingers were made quite bloody. As the bloody perspration ceased, the man's speech returned; and when the storm had passed over he recovered, and remained quite well during the rest of the voyage.—*Casper's Wochenschrift*, 1848, and *Medical Gazette*.

II.—PRACTICE OF PHYSIC.

43.—*On Acute Muscular Rheumatism and Rheumatic Inflammation of the Joints.* By Dr G. Corneliani of Padua.—Since Bouillaud pointed out the connection between the endocardium and the blood-vessels in acute articular rheumatism, Corneliani has specially examined the walls of the vessels, and has found that in a great number of cases, not only do the sero-fibrous sheaths of the muscles and joints, and the endocardium and pericardium, present signs of inflammation, but that similar signs are shown in the coats of the arteries. And even he is inclined to apply the terms *artero-arthritis* and *artero-myositis* to these diseases, although he does not mean that there is always a true *arteritis*, the condition being frequently limited to a high degree of irritation, or a state of active hyperæmia. He endeavours to explain the connection between articular rheumatism and the inflammation of internal organs, by the assumption that the inflammatory process, which is first developed in the heart and vessels, has a natural tendency to localize itself wherever there are sero-fibrous membranes. He points out that the thick and firm buffy coat on the blood is a strong argument in favour of the inflammatory character of the disease. This is always more marked than in other rheumatic inflammations, and continues to exist after the muscular and articular pains have ceased, and seems closely connected with the febrile disturbance of the system.

Another symptom of great importance is the rheumatic inflammation of the muscles (especially those of the loins, abdomen, and thigh), which so readily terminates in suppuration. This tendency seems to indicate the existence of an artero- or phlebo-myositis (?) rather than simple myositis, just as we find that suppuration of the lungs or liver almost always depends on *artero-pneumonitis* or *artero-hepatitis*.

The arthralgic form occurs also in some exanthematous diseases (smallpox, scarlatina, and miliary fever), whose inflammatory character proves (?) that they depend on sub-inflammatory irritation of the blood-vessels. Gouty inflammation of the joints—an obstinate affection prone to recur—in like manner depends on a torpid inflammation of the vessels. Finally, we often meet with pain in the joints in chlorosis, the cause of which must be sought in a similar condition of the vessels.

The inflammatory nature of acute rheumatism is further proved by the fact of its being induced by atmospheric causes, like the rheumatic and catarrhal inflammations of the internal organs. Whatever be the source from which we would derive the affection—whether we refer it to electricity

or to suppressed transpiration, &c.—a morbidly increased reaction is undoubtedly established in the vessels, by which they become predisposed to inflammation, while their relations to the cutaneous system are deranged. An increased irritation of the vascular system, and the sero-fibrous membranes, is the result of this morbidly heightened vitality, which is manifested either as a vascular active hyperæmia, with increased sensibility of the affected parts, or else it gives the impulse to a true inflammation. Finally, in the examination of the dead body, we find the lining membranes of the arteries reddened, thickened, or softened, and we meet with serous effusion on the pericardium, and plastic exudation on the aortic valves, and under the inner membrane of the arteries. All these circumstances show how close a connection exists between acute articular rheumatism, and between inflammation of the endocardium and of the lining new membrane of the arteries.

The inflammatory character of the disease is, according to the author's view, distinctly shown by the nature of the most successful of the remedial agents employed. These he reduces to five.

1. Antiphlogistic means (bleeding and purgatives) by Sydenham, and subsequently by Boerhaave, Pringle, Baglivi, Cullen, Brown, and more recently by Fouquier, Raciborski, Boullaud, Pelletan, and Chomel, are highly commended by the author. He especially deprecates hesitation in having recourse to repeated venesection, where the endocardium and the great arterial trunks are already attacked by inflammation; and considers that its use is strongly indicated where, in consequence of arteritis, there is contraction of the left ventricle of the heart and of the arteries, and where the impeded circulation induces congestion in the internal organs. He considers that, in the young and plethoric, no radical cure is possible without a decided antiphlogistic treatment. He has found leeches superfluous or even injurious in vague and wandering articular rheumatism, although they may be useful where the pain is fixed in one or two joints. Our author does not very strongly advocate the employment of venesection where the inflammatory process has, as he observes, only attacked the extremities of the vessels, and has not advanced to their large parts or to the endocardium, preferring the repeated application of leeches. He considers that purgatives aid the beneficial effect of bloodletting.

2. Laennec and many later physicians recommend *tartar emetic*, and this the author has found most efficacious where inflammatory irritability of the stomach and intestinal canal, or of the mucous membrane of other organs, or cutaneous eruptions, are associated with rheumatism. He gives from six to ten grains in solution during the twenty-four hours; and is of opinion that its use is only contra-indicated where strongly marked gastro-enteritic symptoms are present. The author questions the action of this remedy in producing copious perspiration, or increasing the intestinal discharges. According to his experience, its effect is rather to diminish the cutaneous action, and lessen the quantity of the excretions; but its employment is, nevertheless, found to be successful.

3. Nitrate of potash has been given by the author with the most satisfactory result in rheumatic affections of the joints; and he has never observed that it exercised any injurious effect on the urinary passages.

4. The author considers that he has succeeded in effecting many strongly marked cures by the use of *Colchicum vernale* (which he regards as much more powerful than the *C. autumnale*) when all other means had failed. The general depression with which its use was attended, was speedily removed by the employment of excitants and stimulants. He prescribes it in the form of a syrup.

5. The author fully confirms the experience of Mojon regarding the efficacy of di-sulphate of quinine, which he considers the sovereign remedy in *Rheumarthritis*, but less decidedly efficacious in rheumatic inflammation of internal organs, and of the sheaths of nerves. He has found it extremely useful in typhus, puerperal fever, and chlorosis, where a sub-inflammatory condition of the arterial and venous system predominated. The author finds that, since he has employed quinine in rheumatic affections of the joints, he has more rarely been obliged to have recourse to general bloodletting. He has also observed fewer relapses. The injurious effects ascribed by some to its use (as cerebral congestion, &c.), our author believes to be referable either to an over-dose of the remedy, or to certain conditions peculiar to the disease, rendering this an unsuitable remedy.—*Annal. Universali, March* 1847.

[The great aim of the author is to prove that rheumatism is an inflammatory disease. Were such a proof necessary, we cannot think he has added much to the information we previously possessed on the subject. We have selected it from several

other papers, with the view of illustrating the present state of medicine in Italy.]

44.—*On a peculiar Obstruction of the Bowels.* By DANIEL DONOVAN, M.D., of Skibbereen.

[Four cases have been seen by the author of an affection so curious and anomalous, that we give his own narrative.]

Patrick Hanley applied at the Skibbereen Dispensary on the 23d inst. He was then labouring under severe tenesmus and bearing-down pain; and, to use his own words, "had a bowel complaint on him for four days, and could *pass nothing but red blood.*" He further stated that "he could make no water, and that there was a lump in his seat."

This description of his disease, and the fact that my attention had been directed to the subject by my friend Dr Fitzgibbon, who detailed the particulars of two similar cases that occurred in his practice a few days before, led me to make an examination, and I discovered at the orifice of the gut a large solid mass. The parts around the anus were puffed out, and the sphincter was distended to the utmost.

It was evident that mechanical means could alone relieve the sufferer; and on using the handle of a pewter spoon for the purpose, a large quantity of consolidated potato skins, with some portion of the substance of the tubers and coarse Indian meal, was dislodged. The retention of urine was immediately removed, and the other symptoms relieved, but recurred, and required for four successive days the same treatment, together with the administration of large enemata of warm water, which assisted in bringing down and breaking up the firm mass that filled the intestine.

These concretions are almost entirely formed of potato skins, and are consequent on the use of diseased tubers, in which the peel and farinaceous substance of the potato are so intimately blended together, that it is impossible to detach the former in the ordinary way; and large quantities of the skins are consequently swallowed, and accumulating in the bowels, form the obstructing masses that I have described.

It is of much importance that a correct diagnosis should be formed in this disease, as, from the similarity of some of the symptoms, it may be confounded with dysentery, and lead to very unavailing or even mischievous treatment.

The straining at stool, the evacuation of blood from the ulcerated lining of the rectum, and the retention of urine that may be mistaken for suppression, are all symptoms which are exhibited by the malignant dysentery that has raged for the last two years, and may lead to an incorrect diagnosis of the disease that I am alluding to; but there is one diagnostic character that, once observed, cannot be mistaken, and which clearly points out the nature of this complaint —I allude to a very peculiar sour smell from the body of the patient, like that exhaled from fermenting potato skins, —a substance used by weavers in the manufacture of coarse linens. Whenever this smell is recognized in cases exhibiting the other symptoms that I have described, an immediate examination of the rectum should be made, and mechanical means should be immediately employed to unload the gut, as any other plan of treatment would be perfectly useless.

A similar species of obstruction was very common in the autumn of 1846 from the use of boiled wheat.—*Dublin Med. Press*, Nov. 8, 1848.

45.—*Illustrations of the Results of Pleximetric Percussion.* By M. PIORRY (Hôpital de la Pitié).

[It is well known that M. Piorry insists strongly on the necessity of accurate percussion as a means of diagnosis, and in particular on the limitation of organs, by marking out their boundaries on the surface. The following cases are adduced, in one of his late clinical lectures, as evidence of the successful employment of this method :—]

1.—A woman, aged sixty four, was seized with stitch in the side, general lassitude, dyspnœa, fever, and difficult expectoration. Five days after the commencement of the symptoms the expectoration was purulent, like that of the last stage of phthisis. One portion of the right lung was marked out as partially dull on percussion, without increased resistance communicated to the percussing finger; here there was crepitant râle, indicating the congestive stage of pneumonia. Over a second portion the percussion was quite dull, the vocal resonance increased, the respiration bronchial, and the resistance to the finger such as to indicate a perfectly condensed lung. In a third portion the dulness of percussion continued, and on auscultation there was

gurgling. There the lung was in the stage of suppuration, and hence the purulent expectoration. The patient was bled. The blood had a buffy coat, and this contained numerous opaque yellow granulations, of the size of a hempseed, which are believed by M. Piorry, in this and similar cases, to result from the reabsorption of pus. In this state of the system, M. Piorry deprecates further bleeding. He gives good diet, and places his trust in the administration of tartar-emetic. The prognosis, however, is grave.

[In this case the diagnosis of suppuration of the lung, as opposed to softening tubercle, appears to depend, not on percussion, but on the recent origin of the symptoms and rapid course of the disease. The following observations are more illustrative of the results of M. Piorry's practice.]

2. A man, aged forty, was attacked eight days before admission with stitch in the left side and dyspnœa. Dulness on percussion was present at the lower part of the left side, with absence of respiratory murmur, and œgophony at the upper limit of the dulness; these signs indicated a pleuritic effusion. As the dulness, however, occupied the situation which would have been assumed by an enlarged spleen, M. Piorry applied the following test, founded on the power which he ascribes to quinine of diminishing the volume of the spleen. He gave the patient a dose of quinine, having previously marked out the limits of the dulness, and on percussing again some minutes afterwards, found it unchanged, from which he concluded that the spleen was not at all involved in the disease.

3. A vigorous high-complexioned man complained of extremely laborious respiration and pain in the region of the liver. The veins were full of blood; and percussion showed the heart to be large, and the liver enormous. There was slight fevernishness, but no other sign of disease. The man had been in the habit of being bled annually.

It was evident that the circulation was overloaded, and the heart and liver in particular gorged with blood. Venesection was performed for the relief of the plethora.

After twelve ounces of blood had been removed, decided relief was experienced. Immediately after the bleeding, a decided diminution of size was observed on percussion of the heart and liver. The latter organ had retired from its upper limit by four-fifths of an inch, and by somewhat more than this from its lower limit. Had this reduction of size been insufficient, M. Piorry would not have hesitated to push the bleeding further. [The above use of percussion is worthy of more attention than it has generally received in this country.]

4. On the eighth day after delivery, a woman began to complain of abdominal pain; in the evening she had shivering, followed by an accession of fever. There was a suspicion of puerperal fever. It was found, however, by percussion, that the colon was loaded with fæcal matters, and with gas; and that the spleen was enlarged so as to measure four inches from above downwards. It appeared also that she had received, some days before her confinement, a blow on the left hypochondriac region. M. Piorry, judging according to his well-known principle of the constant enlargement of the spleen in intermittent fever, at once referred the woman's symptoms to an attack of this kind. The indications of treatment were to unload the bowels, and to reduce the size of the spleen by quinine.—*Gazette des Hôpitaux*, Dec. 24, 1848.

46.—*On the Configuration of the Chest in Emphysema, as compared with that in Health and in other Chest Diseases.* By FRANCIS SIBSON, M.D.—The form of this chest in health is distinguished from that in emphysema by this—that its symmetry is not altered by any excessive or partial development. The upper part of the chest, in form, is neither raised nor brought prominently forward. The neck is long, not short; the shoulders are sloping, not elevated; the clavicles are oblique, not square and forward, and elevated at their sternal end; the curve of the dorsal and cervical vertebræ is normal, not excessive; the dorsum is gently convex, not rounded and prominent, especially over its lower portion; the intercostal spaces are wide above and narrow below, not narrow above and wide below; the angle formed between the seventh costal cartilages below the sternum, is a right, and not (as in emphysema) an acute angle.

The form of the chest, in considerable narrowing of the larynx or trachea, with consequent obstruction to respiration, is distinguished from that in emphysema by its being narrow, flattened, and elongated, instead of being rounded, prominent, and deepened.

The form in phthisis is distinguished by the walls of the chest being flattened, in-

stead of prominent, over the seat of the disease.

The form of the chest in extensive heart disease differs from that in emphysema, in that the cartilages and ribs over the cardiac region are much more prominent than the corresponding cartilages and ribs on the right side, instead of being nearly equal to them.

In abdominal distension, the general configuration is exactly the reverse of that in emphysema: instead of the chest being full above and somewhat depressed below, and the abdomen being hollow just below the xyphoid cartilage, the abdomen is tense throughout, the lower end of the sternum and the lower portion of the chest are full and prominent, and the upper part of the chest is flat and narrow. —*Med. Gaz.*, Oct. 27, 1848.

47.—*On Vomiting and Diarrhœa in the Early Stage of Fever.* By Dr Graves. — Every fever which commences with vomiting and diarrhœa, whether it be scarlatina, or measles, or typhus, is a fever of a threatening aspect; and in all such fevers the practitioner should be constantly on the watch, and pay the most unremitting attention to the state of the brain. There is much difference between the vomiting and diarrhœa of gastro-enteritis, and this *cerebral diarrhœa and vomiting*. The latter sets in generally at a very early period of the disease, perhaps on the first or second day, and is seldom accompanied by the red and furred tongue, the bitter taste of the mouth, the burning thirst, and the epigastric tenderness which belong to gastro-enteric inflammation.

There is another source of diagnosis, founded on the results of treatment. Gastro-enteric vomiting and diarrhœa are relieved by leeching the belly, a mode of treatment that has no effect on the vomiting and purging produced by cerebral disease. There is also another means of distinguishing:—the vomiting and diarrhœa which result from gastro-enteric inflammation, are never accompanied by such copious discharges of bile as when they depend on disease of the brain. In diarrhœa from derangement of the brain, the quantity of bile passed is very remarkable; and it is equally curious, that when vomiting follows derangement of the cerebral circulation in ordinary cases, and without fever, bile is thrown up in very large quantities. This is frequently observed in cases of sea-sickness, when a larger quantity of bile is vomited than could occur from mere gastric irritation.—*Graves' Clinical Medicine*, 2d ed. vol. i. p. 69.

48.—*On the Clinical Detection of Iodine.* —It may be often of service to determine when certain medicinal substances have penetrated into the system; and, as regards iodine, M. Rayer adopts a very simple procedure at La Charité. A strip of starched paper is moistened with the saliva or urine of the patient, and is then touched with nitric acid, with the effect of producing a more or less intense blue. As regards the urine, however, if the proportion of iodine employed has been very slight, the fluid requires to be evaporated to a 15th, 20th, or more of its volume. So treated, M. Rayer has detected iodine in the urine of a patient in whose case a simple iodine injection had been but once thrown into the knee-joint.—*Bul. de Thér.*, tom. xxxv. p. 410; and *Brit. and For. Med. Chir. Rev.*, Jan. 1849.

49.—*On the Relative Strength of the Vocal Vibration in different parts of the Body.* By M. Monneret.—The right side of the chest vibrates far more strongly than the left; and the following is the order in which the intensity decreases in the various parts. 1. The larynx and the trachea, as far as the sternum. 2. The four last cervical, and four or five first dorsal vertebræ. 3. The right sub-clavicular and sterno-mammary regions. 4. The same on the left side. 5. The space comprised between the spinous processes of the cervical and dorsal vertebræ and the inner edge of the scapula. 6. The posterior and lateral regions. 7. The sternum and supra-spinal fossæ. 8. The anterior and inferior parts, *i. e.* the præcordial and hypochondriac regions. The thorax is not the only part which transmits this vibration freely, for it is felt along the whole dorsal and part of the lumbar spine. Its intensity is very great at the head, especially the sinciput. The vibration is diminished if the chest is covered with thick muscles, or if there be deposits of fat or serum, and is very feeble in the mammary region in women. In those who have long thin chests, or who have fallen into a state of marasmus, it is very perceptible.—*Rev. Med. Chir.*, vol. iv.; and *Brit. and For. Med. Chir. Rev.*, Jan. 1849.

III.—PRACTICE OF SURGERY.

50.—*Strangulated Inguinal Hernia returned* en masse *by Taxis; Patient saved by an Operation.*—Dr Homolle details a case of hernia in which the tumour had been returned into the abdomen by the patient himself. The reduction was followed by symptoms of strangulation; and, notwithstanding all efforts of coughing, &c., the tumour could not be again made to descend into the canal. On the evening of the second day from the return of the hernia, the symptoms became urgent, and M. Robert was called in consultation, when an operation was agreed on as the only chance of affording relief. M. Robert proceeded to operate, and the following are the details of the operation:—"An incision was made through the integuments of the abdomen about 3½ inches long, nearly parallel to the ligament of Fallopius, and extending to just below the inguinal ring. The aponeurosis of the external oblique was divided along the whole extent of the external wound, and the finger was passed into the abdomen behind the inguinal region; by pushing aside the fibres of the internal oblique and transversalis, and by pressing back the peritoneum and the loose cellular tissue uniting it to the anterior abdominal parietes, M. Robert hoped to find the sac in the iliac fossa, and immediately behind the superior orifice of the inguinal canal, as had happened to him twice already under similar circumstances; but there was no appearance of it. After a long and painful search, we found the tumour behind the external border of the rectus muscle. It was rather glistening in appearance, and very moveable. M. Robert tried several times to seize it with the forceps and draw it out; but the very loose cellular tissue covering it, either escaped each time from his hold, or was torn without being drawn down. At length, however, after fits of coughing, which the patient courageously kept up for some minutes, it was enclosed slightly between the lips of the wound.

"M. Robert then divided the sac; it contained, along with a little serous fluid, a large and very red knuckle of intestine, and a pretty large mass of omentum in front of it. The sac was drawn out as far as possible, and freely opened with scissors guided along the index finger, and so by degrees the seat of strangulation was reached, and divided likewise. Whilst Dr H. fixed the two lips of the sac outside by means of forceps, M. Robert endeavoured to return the intestine, which was accomplished with difficulty, and after some considerable time. The inflamed state of the omentum forbade its being returned; it was left out, and abandoned to the chances of suppuration and mortification, which generally overtake it in such cases. The dressing was very simple; a piece of linen, pierced with holes, was placed over the omentum, which was hanging between the lips of the wound; then a few pledgets of lint and a spica bandage. Ordered him a draught of syrup of peach blossom and castor oil, twenty grammes of each. He had a good night, no fever, got some sleep, and passed several watery stools. On the 9th of January the dressing was raised: there was a laudable and abundant suppuration. From this time the wound was dressed every morning; the omentum continued to suppurate and diminish in bulk. At the end of three weeks the wound was only two inches in extent; the digestive functions were perfectly re-established. After the sixth week the patient was able to be up; and at this day he walks about as well as ever, and experiences no inconvenience from the hernia, which is kept up by a bandage."—*L'Union Méd.*, Nov. 23, 1848.

[This case is interesting in more than one point of view; but we think it especially so, as directing attention to the question of operating in similar cases. The opinion very generally held hitherto on this subject has been—that where symptoms of strangulation follow the reduction of hernia by taxis, and where the tumour cannot be made to re-appear by coughing or other expulsive efforts, that the cases are similarly circumstanced to those of internal strangulation from other causes; and the opinions as to the propriety or otherwise of operative interference, have varied according to the views held regarding the general question of the propriety of gastrotomy.

But we believe that it can be shown, that this opinion as to the analogy between these two classes of cases, has been too hastily assumed; and, without offering any opinion as to the propriety of gastrotomy for internal strangulation, or in

cases of intus-susceptio, we would merely point out, that cases like that of Dr Homolle's patient differ materially in some respects from such internal strangulations or obstructions; and that the points of difference are of such a nature as to show the propriety of operating on the same general principles which warrant us in doing so in ordinary cases of strangulated hernia. The principal objection to operations in cases of internal strangulations, is the uncertainty—both as to the situation and nature of the obstruction—so that the surgeon may find, after opening the abdomen, that he either cannot ascertain or reach the seat of constricted or obstructed portion of bowel, or that, having found it, he cannot, from its very nature, relieve it by operation. But in cases where strangulated hernia is reduced *en masse* by taxis, there are two points which appear to us as obviously indicating the line of practice. The first is, that in such cases the strangulation can scarcely arise from any but one cause, viz., constriction by the neck of the sac; and the second, which follows from the first, is the comparative fixity of position of the hernial mass, owing to the connexions of the peritoneal sac; for when we reflect that the sac is formed by the parietal peritoneum, we at once see, that though the tumour be pushed back through the canal, it cannot be very far removed from its original position with regard to the internal opening, and that it will thus be retained within the reach of surgical interference; so that, whilst an operation affords the patient the only chance of relief, we have the advantage of a degree of certainty, both as to the position of the strangulated intestine and as to its cause; and for these reasons we consider operation in such cases not only warrantable but imperatively demanded; and the successful results of M. Robert's operation will, we trust, lead to its general adoption.]—J. S.

51.—*On the Employment of Sugar of Lead in Strangulated Hernia.* By Drs NEUHOLD and HASSERBRONC.—The use of sugar of lead enemata for reduction of strangulated hernia, was first recommended by Neuber and Seitl; it has recently been tried by Drs Neuhold and Hasserbronc. Dr N. affirms that operations would become very rare were this agent more extensively used:—he states that in his experience of its effects, he has always met with success, and that he has given four to six enemata, each containing ten grains, of the acetate of lead, without bad results. In a case of a very large scrotal hernia, which had resisted the taxis and all other means for twenty-eight hours, and the patient refusing to consent to an operation, ten grains of the acetate of lead dissolved in six ounces of tepid water were given as an enema, and this was to be repeated every two hours. The pulse, which was small and contracted, gradually became more developed, the general condition hourly improved, and the hernia spontaneously returned while the man was asleep. In another case of inguinal hernia, Dr N. was not called till strangulation had lasted three days, and had given rise to the worst symptoms. The patient's condition improved much after the use of the enema, and the hernia readily yielded to the taxis.

Dr Hasserbronc has tried it, and with complete success; the following are the circumstances of the case:—In the month of September 1848, Dr H. was called to visit Michael Th——, a basket-maker, about sixty years old, to reduce a large inguinal hernia of the right side. The patient had already made several ineffectual attempts to reduce it, but he only rendered the tumour more painful. Constipation was present, hiccough, and strong agitation. Dr H. tried the taxis, emollient enemata, cold applications to the tumour, and other usual means, without success: the strangulation had already lasted thirty-six hours. He was going to request a consultation for the purpose of advising an operation; before doing so, however, he determined to try sugar of lead enemata, forty grains to twenty-four oz. of warm water for four enemata; two every two hours; at the same time he ordered cold applications of strong sugar of lead to the tumour: after the third enema Dr H. again tried the taxis, and was able to reduce the hernia. He ordered immediately an ounce and a half of castor oil; the patient had several stools during the night without suffering any bad effects: two days after he resumed his usual business. Though not altogether sharing in M. Neuhold's hopes, Dr H. believes this remedy will play an important part in the treatment of strangulated hernia, and that it will advantageously supplant tobacco enemata, which are not free from danger.—*L'Union Médicale*, Nov. 30, 1848.

52.— *Certain Kinds of Sanguineous Tumours, and a New Mode of Treatment.* By M. PETREQUIN (of Lyons).—After having pointed out the sanguineous tumours most generally known, the author describes another kind, to which he particularly directs attention. We subjoin his description :—" There is," he says, "another kind of sanguineous tumour, often erroneously confounded with the erectile tumours, to which, however, it bears only a very distant relation. It arises and is developed in the subcutaneous cellular tissue, and not in the skin. It consists of a cavity, either simple or cancellated, deeply imbedded in the thickness of the tissues, and to all appearance unprovided with a distinct membrane, which character, in the absence of others, would be sufficient to distinguish it from cysts. It contains liquid blood, in colour and appearance venous, which is placed in immediate contact with the deep surface of the skin, which it elevates. This last, putting aside the redness it owes as much to the blood which it covers as to its own capillary vascularity, usually retains its appearance and texture ; sometimes, however, the redness becomes very deep, and the skin itself is distended, of a glistening appearance, extremely thin, and very much softened, loses entirely its normal aspect, and contrasts strikingly, owing to its new appearance, with the neighbouring parts with which it is continuous. In some cases the tumour appears to redden and swell up like an erectile tumour, when you cause a flow of blood into the parts. Always soft, and fluctuating freely, these tumours increase slowly, and are recognised with tolerable facility: in a doubtful case, a puncture with an exploring trocar will decide the diagnosis. They may be situated on all parts of the body, but they appear to have a sort of preference for the forehead. This seat of predilection in an exposed part, liable to blows, to frequent cold, in a region where the skin is separated from the solid bone merely by a thin layer of cellular membrane, would lead to the belief that contusion is not altogether removed, perhaps, from their formation. However, we must acknowledge that we have never been able to discover the smallest circumstance that could put us on the track of their etiology." The treatment successfully used by M. Pétrequin for these tumours is the injection of citric acid. The operation is very simple, as may be judged from the following passage :—" The 17th April 1847, I plunged a small-sized trocar into the tumour at its dorsal aspect, withdrew about a third of the blood contained in it, which was replaced by a concentrated solution of citric acid. At the end of a month and a half the cure was completed. Compression had been employed to assist the resolution."—*L'Union Médicale,* October 1848.

53.—*Resection of the Os Femoris for an improperly treated Fracture.* By G. V. DORSEY, M.D.—J. S., aged twelve, was brought to me in the latter part of March 1847. About four months previous to that time he had fractured the left thigh-bone, near the lower point of the upper third of its length; the fracture was obliquely downwards from without inward, the lower fragment riding over the upper and overlapping it extensively. Although an apparatus had been applied at the time of the accident by a country physician, the fragments had never been reduced to their proper place, but had become united by a very large callus, standing out prominently and appearing through his clothes; the lower part of the thigh appeared to form an obtuse angle with the upper portion, and when he supported himself on the sound limb, the foot of the fractured leg seemed to pass naturally quite across to the right of the sound one, leaving the heel at the distance of five and a half inches from the ground, nor could he, when standing erect, bring it any closer. Walking, except by means of crutches, was, of course, impossible. On examination I found the callus hard and solid, appearing to fill a considerable space between the overlapping but separated ends of bone, which were quite too firmly fixed to be forced asunder except by actual division of the osseous junction. The patient was anxious for relief, and declared himself willing to submit to any operation which would restore the use of his limb, and remedy to some extent the existing deformity. After mature reflection, and examination of all the authorities I could command on the subject, I proposed to him to divide the callus by sawing it through, thus separating the bones, and afterwards to draw them to their proper place by a force sufficient to produce the requisite lengthening of the limb.

Accordingly, the operation was performed on the 11th April 1847. The patient being placed on a table, I divided the integuments on the outside of the vastus externus muscle, from below the trochanter major, about six inches directly down the limb; and separating them from the mass of callus sufficiently to introduce a sharp-pointed saw, I was enabled, in a few minutes, completely to divide the im-

mense mass, leaving a portion, of course, attached to each fragment; then, by means of a small chain saw, hooked around the bones, I succeeded in removing about one-fourth of an inch, or perhaps rather more, from the end of each bone, thereby forming a surface readily disposed to unite. Very little blood was lost, and this part of the operation was remarkably well borne. He was now placed on the mattress, and the proper extension and counter-extension applied. Here great force was required, and several strong assistants were found necessary at each point, in order to reduce the displaced fragments.

The pain was so great that the patient had every appearance of approaching syncope, much to the alarm of his friends, who thought him dying; however, by steady continuance of the power, the contracted muscles gave way, the proper length of the limb was obtained, and the ends of the bone accurately coaptated.

The case advanced favourably. Between the eighth and ninth week the patient was permitted to get up; the leg was firmly united, the deposition of callus was very great on the outer part of the limb, as no pressure could be applied to this part, and the back part of the thigh was perfectly flattened by long pressure on the mattress, there being no callus formed on this part. The large lump of callus on the outside produces rather an unpleasing appearance, but the leg is straight, shorter only by three-fourths of an inch than its fellow, and perfectly strong, supporting the weight of the body, and enabling the patient to walk without any artificial support. The knee-joint, which had not recovered its flexibility up to the time of the operation, from the former confinement, is still, after the lapse of nearly a year, considerably stiffened, but it is improving, and does not materially interfere with locomotion.—*Western Lancet*, May 1848, and *Charleston Medical Journal*, July 1848.

54.—*Neuralgia of the Urethra.*—M. Child describes a case of this affection. The patient, a man aged twenty-six, had contracted gonorrhœa three years previously. Since this time he has never been free from pain, and occasionally there has been a white gluey discharge. There was no stricture. He was ordered a mild saline aperient, with ten minims of vin. colc. in each dose. This appears to have had little or no effect, for four days afterwards. Nitrate of silver was freely applied to the urethra. This afforded much relief, and the application was repeated three or four times. The following mixture was then ordered :—℞ tr. lyttæ, ʒi.; tr. ferri sesquichlor. ʒij; quinæ disulph. gr. xii; acid. sulph. dil. ʒi; aquæ distill. ʒiv.; m. cap. ʒi ter in die. A pill, containing four grains of extract of conium and a quarter of a grain of muriate of morphia, to be taken every night. In five weeks he was perfectly relieved.—*Medical Times*, vol. xix. p. 143.

55.—*Perforated Scarificator for Stricture of the Urethra.* By Professor Bonnet.—M. Bonnet describes an instrument which he has found very useful in some cases where it was necessary to make incisions in obstinate and very much contracted strictures of the urethra. It consists of a middle-sized catheter with a bulbous extremity; in this bulbous extremity there is contained a lancet, itself the continuation of a small tube which passes through the catheter, and by means of which the lancet may be made to project beyond the bulb. Through this latter tube a very small sound or rather a wire passes. This conducting wire is passed through the stricture by means of a small gum-elastic catheter, open at both ends, which is then withdrawn, the wire being left in the urethra. The instrument is now guided upon the wire until its bulbous extremity is arrested by the stricture; when the lancet point having been made to project, it is pushed along the wire so as to cut through the stricture.—*Gazette des Hôpitaux*, Oct. 1848.

56.—*Gonorrhœal Ophthalmia.*—Dr Hairion of Louvain points out in gonorrhœal ophthalmia a symptom, according to him constant and invariable, namely, the existence of a small raised, oval, subcutaneous tumour, painful on pressure, situated in front of the ear on the affected side, and caused by an enlargement of the lymphatic glands. The clinical experience of M. Kerst of Utrecht has shown, on the contrary, that this symptom is not by any means constant, as the professor of Louvain believes it, and that, consequently, it has not the pathological importance that the latter has assigned to it. M. Kerst, moreover, states, that he has inoculated with the matter of a gonorrhœa the eye of a dragoon affected with pannus, and that he has thus developed a purulent ophthalmia, without the bubo in front of the ear showing itself.—*L'Union Médicale*, Oct. 1848.

57.—*New Method of Treatment of Urethral Pains following Gonorrhœa.* By M. Vidal (de Cassis).—After stating the frequent occurrence of severe per-

sistent pain in the course of the urethra, after all traces of discharge have completely ceased, M. Vidal mentions, that, having frequently remarked that the pains were relieved by pressing the penis with the fingers, he was led to the idea of treating these cases by compression, and has found the plan useful, affording a perfect cure in many cases, and a marked alleviation in others. The operative procedure, says M. Vidal, is so simple, that it is scarcely necessary to mention it. "The surgeon takes a long strip of diachylon plaster, one centimetre (two-fifths of an inch) in breadth, and rolls it around the penis in the same manner as a common bandage, beginning at the glans; or, still better, he may apply it more accurately by using a number of small strips of plaster, each of which shall only be sufficient to encircle the organ once, and the two extremities of each strip should be made to cross upon the urethra, for the purpose of insuring the firmness of the dressing. The principal point to be attended to is the degree of compression, which ought to be as firm as possible, without interfering with micturition, which would, of course, necessitate the removal of the dressings. The compression should be continued for a considerable period after the cessation of the pains, to prevent their return." M. Vidal cites two cases, from amongst a great number which he has treated, in favour of this mode of practice.—*L'Union Médicale*, Oct. 7, 1848.

IV.—MIDWIFERY, AND DISEASES PECULIAR TO WOMEN.

58.—*Influence of the Mother's Imagination upon the Production of Monstrous Children.* By Dr BURDON.—It is a fact, that the workings of a strongly excited mind may produce very great changes in the body, either immediate or remote; but it may at the same time be observed, that this power of the mind is circumscribed within a limited circle, even within its own body. It may be felt in the several tissues, glands, and viscera; it may produce sympathetic irritations and nervous movements; but it has no constructive or creative power. Who, by an effort of his mind, could place another hair on his head, or add a cubit to his stature?

In forgetfulness of this and common sense, and only noticing the fact, that the mind of one individual cannot alter the body of another, it is asserted, that the little being within the womb cannot be considered as a foreign body with respect to the mother, but rather (in consideration of its connexions) as a part of herself.

Dr William Hunter examined very patiently the influence of the mother's imagination upon her still unborn child, and proceeded upon this right plan of investigation. In 2000 cases of labour, immediately on delivery, and before examining the child, he inquired of the woman whether, during her pregnancy, she had a longing for, or had been frightened by, or her thoughts had dwelt on, any thing particular for any length of time? He questioned her also as to her own ideas on the subject, as to whether she expected to find a mark on the child; if so, what kind, and why? All her answers were taken down in writing, and then he examined the child. He declares that, though he found many children marked, yet in not one single instance of these two thousand did the answers or expectations of the woman agree with the result. Many expected a mark where there was none; and others had not thought of the subject, and had got through their term unnoted by any incidence when there was. Both the St Hilaires, father and son, have been very assiduous in collecting the particulars of every recorded abnormal birth; and the latter asserts, as I have mentioned further back, that Dr Martin's case is the only authentic one in which the woman said before her confinement that her child should be born marked, and her feelings proved to be correct. Thus it is clear how the numbers of instances have been collected to form such a large mass of evidence as proof of the truth of our subject. But when closely examined, the magnitude of this mass fades into insignificance. Remove the ample folds of its gossip drapery, and the giant becomes a dwarf. As I have myself mentioned a number of cases of monstrosities, in which the impression was made on the mind of the mother prior to the birth of the child, do I mean to deny the existence of cause and effect? Certainly not. Let us examine what constitutes the logical term, cause and effect. It is this: A certain act being always, or nearly so, followed by the same consequences. If occasionally the primary being present, the succeeding phenomenon does not appear, we readily admit that in such instances the usual cause is overpowered by some other cause.

But be it remembered, that the exceptions must be few in comparison with the rule. Is such the case with the subject before us? No such thing. Every woman, I repeat, during her gestation of nine months, must have had her attention arrested by some object, or must have been struck by some one idea more forcibly or more frequently than by others, and yet, comparatively speaking, there are but very few children born with a blemish. How, then, are these facts to be explained which have occurred? I answer, the agreement between them is merely accidental, and cannot be looked upon as cause and effect. Every person has been struck by meeting with a number of remarkable fortuitous coincidences. If these were collected and set in a note-book, they should far outnumber those which take place between mother and child.—*Dublin Medical Press*, Nov. 29, 1848.

59.—*On the Dropsical Affections of Pregnant Women.* By M. Devilliers.—M. Devilliers considers that these affections may be most advantageously considered under the following heads: 1. Simple œdema or anasarca. 2. Œdema complicated with affections of the circulatory or respiratory organs. 3. Œdema or anasarca with albuminuria. As a preliminary, he inquires *in what way do the modifications of the economy induced by pregnancy, influence the production or progress of dropsies?* In this point of view the analysis of the blood is of great importance; and the author found that 25 analyses furnished 67·7 per 1000 of albumen, the normal mean of non-pregnant women being seventy; but while in the first seven months the average was 68·6, it was in the last two only 66·4. In those cases in which albuminuria was present, the proportion during the last two months was only 56·39. The researches of Andral have amply shown the coincidence between the diminution of albumen in the blood, and the formation of dropsy; and those of MM. Becquerel and Rodier have established the same in reference to the solid parts of the serum.

1. *Simple œdema or anasarca.* The author believes that the state of repletion of the vascular system is in a far less degree a cause of the effusion, than is the altered composition of the blood. He has not found age or the primiparous condition exert any notable influence in its production, but it seems to occur most easily in the lymphatic temperament. An important influence of pregnancy has been overlooked, viz. that the fact of the increased degree of uterine activity displaces or diverts the blood, and must produce *stasis* and other modifications in the lower extremities. The influence of the pressure of the developing organ is well known, and its inclination will often determine which limb shall be most œdematous. The amount and persistence of the œdema are, however, far from being always proportionate to the degree of development of the uterus. In about half the cases the œdema becomes developed especially between the seventh and ninth months, it is not unfrequent in the fourth or fifth, and is even met with in the third. Although occasionally the œdema is developed in a week or two, it usually requires several, and can never be called active. Once formed, it may undergo the most strange variations, probably dependent on mechanical causes. In a little more than one sixth of the author's cases, the engagement of the fœtal head in the cavity of the pelvis, at the end of pregnancy, was attended with partial or complete disappearance of the œdema. The *urine* in these patients is sometimes normal, sometimes sparing, deep-coloured, or turbid, *but does not contain albumen.*

Varicose veins should rather be regarded as a concomitant than a complication, depending upon the same causes as the œdema, and always preceding it. They were absent in three-fifths of the cases. They often diminish on the appearance of the œdema. In simple œdema the splanchnic cavities contain no fluid, but dropsy of the amnios is sometimes present. In respect to the question whether the existence of œdema at all influences the occurrence of *puerperal affections*, the author observes that in about one-fourth of his cases *metro-peritonitis* occurred; and so intimately did the disappearance of the one and the appearance of the other seem to be connected, that he was at first disposed to regard metastasis as the best explanation. Further experience showed him examples of the persistence of the œdema; and he believes that the cases of the occurrence of serous inflammation on the disappearance of the œdema, narrated by authors, were examples of dropsy accompanied with organic alterations or albuminuria. In the *treatment* of this affection when slight, position, aperients, and mild diuretics suffice. If the œdema is great, and the woman plethoric, venesection may be resorted to. Vapour-baths and gentle friction are very useful; but compression is useless or mischievous. Iron, in certain subjects, is of great utility; but its ad-

ministration must be watched, and coincident small bleedings be put into force if congestive symptoms present themselves.

2. *Dropsy with affections of the central organs of circulation and respiration.*—In these cases organic causes co-operate with those already enumerated, to render the effusion more copious and more important. When the organic disease is but slight, and the dropsy proceeding from it has not preceded pregnancy, the œdema may appear only at the ordinary period, be confined to the lower extremities, and alternate in amount, as simple œdema. Generally, however, it is much more persistent, and has a great tendency to invade the splanchnic cavities, where, indeed, it may commence. When this is the case the birth is generally premature, although sometimes women labouring under dyspnœa from this cause will go their full time, and bring forth strong infants. In treating this affection, when the means advised for severe simple œdema, with punctures of the dropsical parts, or paracentesis abdominis, have failed to give relief, if danger menaces the patient, and the child is viable, we should have recourse to the induction of premature labour.—*Rev. Méd. Chir.*, and *Brit. and For. Med. Chir. Review*, No. V. p. 273.

60.—*Spasmodic Contraction of the Cervix Uteri during Labour.* By Dr SCANZONI.—Our author believes that it is always the internal orifice of the cervix uteri which is the seat of spasmodic constriction during labour. The supervention of this accident is marked by the following symptoms:—After the first period of labour is passed, and the vaginal portion of the uterus has disappeared, the pains suddenly assume a new character, the patient becomes agitated, and complains severely of sharp and constant pain in the loins. The vagina is hot, and often dry. The os uteri is pressed deeply into the pelvis, its edges are thin and hard, and fully on the stretch, even when there is no labour pain, and the presenting part of the child can be felt through the cervix. These symptoms distinguish spasmodic constriction from rigidity of the cervix, which generally obstructs the free dilatation of the os. Rigidity of the cervix, Dr Scanzoni believes to be very rare. Among 4200 cases of labour, he has only met with it five times, whilst among the same cases he has seen, at least, fifty of spasm of the os.

Among many means tried to subdue and destroy this spasmodic state of the fibres of the neck of the uterus, the only one found of much service is the uterine douche, practised in the manner proposed by Kiwisch, for inducing premature labour. (See *Retrospect* for 1848, p. 121.) The only instrument required is a modification of the ordinary enema syringe.—*L'Union Médicale*, Nov. 21, 1848.

61.—*Partial Abortion in Cases of Plural Pregnancy.* By M. BRACHET.—After detailing at length four cases of partial abortion, M. Brachet lays down the three following propositions:—

1. In cases of plural pregnancy, one of the fœtuses may be expelled, and leave the other fœtus to be developed even to the full time.

2. It may happen that the second fœtus may not attain its full development, but be expelled at a period more or less distant from the expulsion of the first.

3. After one fœtus has been expelled along with its secundines, the second fœtus (although dead) and its secundines may remain in the uterus some weeks or even months after the expulsion of the first—*Journal de Médicine de Lyon*, Mars 1848, and *Archives Générales*, Oct. 1848.

62.—*Inversion of the Uterus.* By Dr TYLER SMITH.—This accident has sometimes been attributed to inverted action of the uterus, but more generally to mechanical traction of the cord, and injudicious attempts at removing the retained or adherent placenta. When inversion is referred to traction of the umbilical cord, whether in consequence of a short funis, the sudden birth of the fœtus while the mother is in the upright position, or the attempts of the obstetrician to remove the placenta, it is always believed to depend on the merely mechanical force which is in operation. It is considered that the fundus uteri is dragged down mechanically through the os uteri and vagina, the uterus being supposed to be passive during the occurrence of the inversion.

Dr Smith is persuaded that it depends in *all* cases mainly upon an *active* condition of the uterus. Where it takes place without any mechanical interference, there can be no doubt of the preternatural and perverted activity of the uterus. But even in cases where the placenta is attached to the centre of the fundus, and when the cord is drawn through the vagina with any amount of force likely to be exerted by an accoucheur, it is not a mere mechanical displacement which produces the accident, but the irritation of the fundus uteri, by traction, excites contraction of the fundus, thus producing that contrac-

tion and descent of the fundus uteri, which is the first stage of the accident. The common opinion has very naturally arisen from observing, in some cases, that the fundus uteri, when the placenta is firmly attached, follows the advancing cord, while traction is being used. The depression of the fundus uteri, even in these cases, is not a simple yielding of the part, according to mechanical principles, but an active contraction, excited by the irritation of the fundus uteri by the traction of the placenta.

The steps by which complete inversion is produced are the following:—There is, first, cup-like depression of the fundus uteri; coincident with, or immediately following upon, this depression, there is hour-glass contraction of the body or lower portion of the uterus. The annular contraction of the body of the uterus grasps the introcedent fundus as it would a foreign body, and carries it downward for expulsion through the os uteri, the os uteri being at this time either in a state of inertia, or actively dilated, the same as at the end of the second stage of labour. After the inverted uterus has passed through the dilated os uteri, this part of the organ becomes contracted, preventing reversion from taking place. Thus, there is, first, depression of the fundus uteri, with annular or hour-glass contraction of the body of the uterus, and dilatation of the os uteri. Next, there is intus-susception of the fundus by the body of the uterus. Lastly, complete inversion occurs, with contraction of the os uteri upon the inverted organ. If we wished to describe this accident in three words, they would be —introcession—intus-susception—inversion. The displacement may not be complete; it may in some cases stop at introcession; in others, at intus-susception, and then return to the natural state; or it may remain intus-suscepted. Inversion produces violent disturbance of the nervous system, and is frequently attended by alarming hæmorrhage. But the symptoms of the intus-suscepted uterus are still more violent. The strangulation of the fundus is almost as severe a shock to the system as actual rupture. In inversion, the hæmorrhage is somewhat arrested by the os uteri acting as a tourniquet to the uterus. We may compare perfect inversion of the uterus to intus-susception of the intestinal canal, only that the intus-suscepted portion of intestine is not protruded externally. Probably many cases of prolapsus ani should be called inversion of the rectum rather than prolapsus.

Inversion generally occurs quickly after the delivery of the fœtus, between the expulsion of the child and the expulsion of the placenta. Dr Smith has known it to take place after the death of the mother, and after rupture of the uterus had occurred. In the latter case, the fœtus was passed into the peritonæal cavity, while the uterus became inverted, and protruded through the vagina. The predisposing causes of the accident are the causes of acute labour and excessive or irregular action of the uterus. It is of very great importance to understand clearly the real nature of inversion, as it is one of those accidents which is most confidently referred to malpractice. The less it is considered a mechanical displacement, the less disposition there will be to attribute it to the accoucheur; owing to the prevalence of the mechanical idea, obstetricians have sometimes been blamed most unjustly in cases of inversion.

The *treatment* consists of the mechanical re-position of the uterus. Immediate steps should be taken to reduce the inversion, because of the rapidly increasing contraction of the os uteri, which, by impeding the circulation, causes an increase in the size of the tumour. The size of the uterus should be reduced as far as possible by pressure, and by detaching the placenta in cases where it still adheres. By moderate but sustained force the uterus is then to be passed up through the vagina and os uteri. After the organ has been partly passed through the os uteri, the muscular action of the uterus itself assists in restoring it to the proper position. It is reinstated with a sudden jerk, causing a considerable report at the moment of its restoration. In cases where intus-susception exists, the hand must be passed through the os uteri, so as to overcome the annular contraction, and to restore the intus-suscepted portion to its proper position. Cases of intus-susception and inversion require careful watching until the uterus has permanently contracted.—*Lancet*, Nov. 25, 1848.

63.—*Anomalies of the Menstrual Functions in relation to Fecundation.* By M. Paul Dubois.—M. Paul Dubois has recently illustrated some of these at his Clinique by several cases. Two young women commenced menstruating at eleven and twelve, and were confined at thirteen and fourteen and a half. Such cases of premature nubility, coinciding with a precocious condition of the rest of the body, are by no means rare; and they may be contrasted with certain examples of tardy menstruation, which give rise to very em-

barrassing questions. In one of these the woman was not regular until twenty-one; and in a similar case, in which M. Dubois, sen., was consulted, he, having found on examination the genital organs normal, sanctioned marriage; but the person never became pregnant. Still, there are cases on record in which women have become mothers without menstruating; and M. Dubois relates one in which menstruation first occurred after the eighth confinement. Again, aged women have become pregnant after ceasing to menstruate. A woman æt. twenty-one, now pregnant, was regular at twelve, and has never been so since. In civil practice a cessation of the menses is considered a principal sign of pregnancy; but in legal medicine it is of little account, for it is well known how subject this flux is to arrest by many moral and physical circumstances. In many newly-married women the menses become suppressed for awhile, and then return in augmented quantity, giving rise to the belief in the occurrence of a miscarriage. But for this there has been no foundation, the suppression arising from change of habits on the part of the woman. The persistence of menstruation after fecundation is an anomaly of less frequent occurrence than is popularly believed; for it is wrong to confound with this a slight accidental flux of blood, which usually occurs at quite irregular intervals.—*Rev. Méd. Chir.*, iv. p. 47, and *Brit. and For. Med. Chir. Review*, No. V. p. 276.

64.—*Idiopathic Leucorrhœa.*—1. The discharge is not purulent. In the present state of our knowledge, we cannot recognize pus otherwise than as a consequence of acute or chronic inflammation.

2. The discharge does not arise from an ulceration, nor from a red or thickened, or granulated mucous membrane.

3. Nevertheless, we may find a granulated mucous membrane on the vagina, or on the neck of the uterus, or even ulcerations, at the same time with a true leucorrhœa; the two maladies co-existing. In such a case, nothing else than the nature of the discharge can determine the diagnosis. A true leucorrhœa flows chiefly from the uterus, and such a discharge may be examined separately from the vaginal discharge, which, in a complicated case, will consist of the mixed mucous and inflammatory secretions.—*L'Union Médicale*, Dec. 23, 1848.

V.—MATERIA MEDICA AND THERAPEUTICS.

65.—*Chloroform in Dental Surgery.* By MR CLENDON.—We have been much pleased with the perusal of Mr Clendon's short paper. While he maintains the safety and advantage of the use of chloroform to the patient, he shows candidly the difficulties which it places in the way of the operator. It is obvious that, for all operations in the mouth, the use of an anæsthetic is attended by inconveniences unknown in other surgical operations.

While inhaling, patients frequently stretch out their legs and slide down in the chair; and the head, from their inability to support it, falls forward, or on either side, in a position very inconvenient for removing teeth. From such a posture it would be very desirable to raise them; but, owing to their entire helplessness, this is difficult to accomplish, especially if the patient be at all weighty. Fearing the effort might disturb them, Mr Clendon seldom attempts it, but kneels down, so as to place himself on a level with the mouth, and thus proceeds to remove the teeth—operating, of course, at a great disadvantage. The teeth are sometimes firmly clenched, rendering necessary some force to open the mouth. This occasions loss of time, and tends to disturb the patient. A gag has been suggested. Mr Clendon has tried several contrivances of this kind, and finds them more easy in theory than in practice. The very proposition is startling to patients, who, if they comply, generally contrive, intentionally or unintentionally, to eject it during the inhalation. It is much in the way in operating. Fortunately it is not often required: as the mouth can generally be opened, and kept so, by the insertion of the finger.

During inhalation the mouth becomes filled with saliva, sometimes of a frothy character; and, when one tooth has been removed, the blood which flows mixes with the saliva, and conceals the remaining teeth or roots from view.

By a little tact these inconveniences may be in part obviated; and, on the other hand, the advantages derived by the patient more than compensate them.

On the general action of chloroform Mr Clendon has some sensible observations. "One cannot fail to remark the various effects on different individuals of the same age and sex; no experience enables us to

say beforehand what the precise action will be. We may rely on insensibility to pain; but whether this be preceded by a state of tranquillity or excitement, whether the duration of insensibility will be one minute or ten, or whether the patient will wake up with a smile, or suffer from sickness and prostration, no one can previously determine."

In his remarks on its effects on the nervous system, Mr Clendon appears to us to have been led into some confusion by comparing together genuine varieties of action with mere differences in the degree of anæsthetic sleep.

Mr Clendon does not remember a single patient who complained of headache after its use; nor, although he has employed chloroform in several hundred cases, has it ever produced effects to excite alarm.—*Chloroform in Dental Surgery* by J. C. Clendon. London, 1849.

66.—*Unusual Phenomena following the administration of Sulphate of Morphia.* By L. B. Anderson.—A young lady, from excessive fatigue, and loss of sleep in attending a sick friend, became so "nervous," to use her expression, that she was unable to procure the slightest repose.

A fourth of a grain of the sulphate of morphia was now directed to be administered, and a like quantity to be taken every two hours, unless it increased the pain in the head (which was the only unpleasant sensation she had ever experienced from its use), until she became entirely composed, or fell into a sound and refreshing sleep. She experienced no unpleasant sensation from its use until shortly after the administration of the third portion, when she complained of a "tingling" sensation in the extremities. The hands and feet became cold; the fingers were involuntarily contracted and extended; she experienced some uneasiness about the elbows and knees, and also, at times, a slight difficulty in breathing. The time for the administration of the fourth portion having arrived, she had it given, hoping that it might allay or mitigate those unpleasant sensations. A short time, however, only elapsed after its administration, before all the phenomena above mentioned became greatly aggravated. The muscles of the hands and feet became rigidly contracted; the legs were drawn upon the thighs, and they upon the abdomen; the arms were alternately fixed, extended, and then contracted across the thorax; the muscles of the tongue, fauces, and glottis, became so affected, that articulation and deglutition were almost impossible, and respiration was greatly obstructed. In fact, the spasmodic action of all the voluntary muscles was so great, as to similate a *genuine case* of traumatic tetanus. She recovered under appropriate treatment.

There was no peculiarity in the constitution of this lady, nor had she ever before experienced inconvenience from the use of a preparation of opium. It is true, she had in early life been subject to occasional attacks of epilepsy; an attack of which, however, she had not had for a considerable time prior to the use of morphia. She has taken, since the above-mentioned circumstance, several of the liquid preparations of opium, from which no unpleasant effect was experienced.—*Amer. Jour. of Med. Science.*

[Is it not probable that a mistake had been committed, and strychnia given for the sulphate of morphia ?]

67.—*Physiological and Therapeutic Action of Atropia.* By MM. Bouchardat, and Stuart Cooper. (*Continued from* p. 19.)—Full details of five cases are given to illustrate the action of the alkaloid on man. For the most part, the drug was applied in the solid form to the skin, by the endermic method; and occasionally it was administered by the stomach in aqueous solution.

Applied to the denuded dermis in the dose of one centigr. (1-6th grain), it occasioned a burning pain, lasting from five to ten minutes. The remote action was not developed until after the lapse of from fifteen to twenty minutes. One of the first and most constant symptoms, was dryness of the throat, accompanied with great difficulty of deglutition. Dilatation of the pupil was always present, and the following symptoms more or less constantly, vertigo, dimness of vision or complete blindness, tinnitus aurium, numbness and nearly complete loss of power over the limbs, paleness of the countenance, quick and weak pulse, coldness of the extremities, loss of general sensibility, and delirium occasionally of a violent kind. Micturition was either retarded, or the patient was tormented with frequent desire to pass urine.

At the end of from twelve to twenty hours, these symptoms, which on several occasions assumed an alarming degree of intensity, had subsided. Wine and tea were found useful as restoratives.

The first of the cases recorded is one of severe chorea, which had resisted for a long period the ordinary remedies. The atropine was applied daily by the endermic

method during several days, with the effect of completely removing the disease. The physiological action of the drug was fully manifested. [Trousseau and Bretonneau have found the powder of the root of belladonna very useful in the same complaint.] The second case is one of bronchitis and emphysema, accompanied by severe dyspnœa. The endermic application of the alkaloid was continued seven days, at the end of which period the patient enjoyed nearly complete relief from her sufferings. The same treatment was successfully applied in a case of aphonia following inflammation of the throat, and in a severe case of hysteria of several months standing. For the best method of exhibiting atropia internally, we refer to the *Retrospect* for 1848, p. 180. It is employed in the solid form when applied endermically. The quantity at first should not be larger than two millegr. (1-30th gr.), but it may be augmented gradually to one centigr.—*Gaz. Méd. de Paris*, Dec. 23, 1848.

68.—*The Advantages of Chloride of Gold as a Caustic.* By M. CHAVANNES.—MM. Récamier and Légrand signalized the advantages of the chloride of gold as a caustic many years ago—and our author confirms their statements from observations made chiefly in the treatment of lupus and syphilitic tubercles and ulcers. M. Chavannes maintains that the chloride of gold destroys less than the other caustics, and, when the crust separates, cicatrization is found in a forward state of advancement. The cicatrix which remains after the use of this chloride, is said to be less marked than when other caustics are employed. It is prepared thus:—gold leaf one part, hydrochloric acid three parts, nitric acid one part.—*Gaz. Méd. de Paris*, Dec. 23, 1848.

69.—*On Collodion and Asbestos as a Remedy for Toothache, and a Material for stopping Teeth.* By Mr ROBINSON.—Mr Robinson has frequently applied collodion in severe cases of toothache arising from exposure of the nerve, with perfect success, when no persuasion could induce the patient to submit to the radical cure (extraction), either with or without the use of chloroform.

The method adopted is to let the patient wash the mouth with warm water, in which a few grains of bicarbonate of soda have been dissolved. Mr Robinson then removes from the cavity any foreign substance likely to cause irritation. After drying the cavity, the collodion, to which have been added a few grains of morphia, is dropped from a point into it, after which it is filled with asbestos, saturated with collodion, over which again a pledget of bibulous paper is placed. In a few seconds this becomes solidified, and forms an excellent non-conductor of heat and cold to the exposed nerve. By occasionally renewing this, Mr Robinson had been enabled to effect a more durable stopping than with gold.—*Medical Gazette*, Dec. 22, 1848.

VI.—DIETETICS, HYGIENE, AND MEDICAL POLICE.

70.—*Diseases of the Mercury Miners at Almaden, in Spain.*—(Continued from vol. i. p. 255 of *Retrospect*).—Of the diseases of the Almaden miners, those which specially result from the nature of the ore which they work, and which may be called mercurial diseases, are affections more or less severe of the mouth, and of the nervous system. An exact description of these affections is still a desideratum. We have plenty of writings on the salivation and stomatitis which are observed as the result of the therapeutic administration of mercurials; but the specialties in the characters, progress, and terminations of the affection of the mouth in mercury miners, have not yet been described.

The disorders of the nervous system have been studied by various authors, among others by Merat, who have observed the trembling peculiar to gilders, mirror-makers, &c., but no one has described the affections of the nervous system as they show themselves here, viz., in forms and degrees so different and well characterised, that they are distinguished here by familiar names. Thus the miners distinguish among those affected by trembling, the *temblones*, the *calambristas*, and the *modorros*, according as the patients present trembling, properly so called (*temblor*); trembling accompanied by pains and remarkable convulsive phenomena (*calambres*); and trembling accompanied by paralysis and impairment of the intellectual faculties, the last stage of the disease, constituting the condition of a *modorro*. The exactness of these distinctions will appear presently.

The affection of the mouth may be first described, which shall be called stomatitis, without discussing the question whether inflammatory action is always its principal pathogenic element. It has two se-

parate forms, the acute and chronic stomatitis.

The acute form generally manifests itself in the newly arrived stranger workmen, who go into the mines without precautions, and at once engage in the most hurtful kinds of labour. The morbid phenomena bear the most marked resemblance to those which follow the use of calomel. Sometimes they are of extreme violence; the mucous membrane of the mouth and pharynx inflame and ulcerate over its whole extent; all the salivary glands become engorged; the tongue protrudes betwixt the teeth; and the unhappy sufferers, unable either to swallow, sleep, hear, or speak, perish in frightful torments. The following notes of a case witnessed in the Hospital at Almaden, present an example of acute stomatitis, as it is observed in newly arrived workmen.

Francisco Munoz, aged twenty-eight, came to work at the transportation of ore in the mine, on the 1st December 1847. No particular change was observed in him till the fourth day of his labours. He had then a sharp febrile attack, with weight in the head, bending of the body, and in such a state of mental torpor that he could recognise nobody. He was incapable of any mental exertion, and evinced only a desire to sleep. This lasted only three days, and from that time to the end of December he could work in the mine. He had no dyspnœa, dyspepsia, or anorexia, and merely suffered from some nocturnal pains which kept him from sleeping. In this condition he went to work in the deepest part of the mine, and the next day, for the first time, he felt pains in the gums and along the lower jaw. In spite of this he returned for two successive nights to work, but the third day he was so ill as to be obliged to give up. The swelling of the gums extended to the interior of the cheeks, salivation showed itself, and after in vain attempting for five days to be treated at home, he entered the hospital, where he was seen next day. The gums were found tumified, of a dark red colour, and spongy appearance. They were detached, and as if eroded, on a level with the necks of the teeth. The teeth and tongue were covered with a thick yellowish crust; the tongue was not ulcerated, but swollen and marked with the impressions of the teeth. The buccal mucous membrane presented several white superficial ulcers, the long diameter of which, horizontally, corresponded with the alveolar border of the gums. The salivation was abundant, the breath fœtid. Next day the local symptoms were the same, the pulse seventy-two; the patient sleepless, swallowing with great difficulty, and unable to chew. In another patient, under the care of Dr Gervasio Sanchez Aparicio, also affected for the first time with acute stomatitis, and under treatment for fifteen days, there are still large ulcerations under the left cheek, and on the gums and border of the tongue on the same side; the base of these ulcers is whitish, and their borders inflamed. Dr Gervasio states that he observes the ulcerations more frequently on the left than right side of the mouth, and he thinks this to depend upon the custom which the miners have of chewing rather with the left than right side.

The stomatitis, as exemplified by these and other cases, does not differ materially from that which is observed as a sequence of the therapeutical employment of mercurials. It is not among the acute, but among the chronic cases of the mouth affection, that the phenomena peculiar to Almaden manifest themselves. The affections of the mouth, proper to the workers in cinnabar, are those which depend upon a repetition of the stomatitis; and more frequently still, those which result from an action of the mercury, though gradual and unattended with any of the principal phenomena indicated above. These are the cases, by far the most numerous, which are comprehended under the name of chronic stomatitis.

The affections now to be described, sometimes succeed to acute stomatitis, sometimes are primary. In the first case, when the inflammatory phenomena have disappeared, the ulcerations are healed, and the salivation has ceased, this is what is observed; the gums remain spongy, they are detached from the necks of the teeth, which become loose and decayed, and the patients eventually lose them one by one.

But many individuals come to lose their teeth completely, in a slower, and, it may be said, gentler manner. The affection does not commence violently, there is never either severe pain or fever, or swelling of the salivary glands; in some cases there barely exists a slight ptyalism. At the first, there is a little swelling of the gums, especially at the free border, which is redder than the rest, and forms a sort of ridge round the teeth; then, betwixt the border of the gums and the teeth, there is secreted more or less of a grey matter, and there is a slight tenderness in brushing the teeth, or chewing. Sometimes there are slight ulcerations; but the patients keep quite free from those severe affections which compel them to suspend labour.

In others the gums become swollen and spongy, and bleed very readily, without showing the least signs of inflammatory action. The miners regard this tendency to bleed as a favourable symptom. They fancy that the absorbed mercury is eliminated with the blood, and that they are thus preserved from more severe affections. Be the course of symptoms what they may, the result is the same in all, the dropping out of the teeth; when this has resulted, the workmen cease to suffer, and they know this so well, that they say that whenever a man has lost all his teeth, or even merely all his grinders, he thenceforth enjoys immunity from all affections of the mouth. Whether this opinion be really true or not, it is consonant at least with what can be observed among the workmen. They lose their teeth without regret; many of them from thirty-five to forty years of age, are quite toothless, and have in consequence always a peculiar and easily recognised physiognomy. Many of these men have been examined; none of them have either ptyalism or ulcerations, and in some the tissue of the gums is firm, rosy, and healthy, and they assert that it has become firm only since the decadence of the teeth.

In the men, on the contrary, who have partially lost their teeth, the mouth is never in a sound state; in most of them the gums are spongy, the teeth loose, and some of the molars are gone. The breath is generally fœtid, though there is neither ulceration nor observable ptyalsim.

If a considerable part of the workmen who pay some attention to hygienic measures escape the acute stomatitis, it may be confidently affirmed, that none, or scarcely any, escape some amount of the chronic form of the affection; not merely the miners, but the engineers, and even the superintendents who descend into the mine only once a-week, lose some of their teeth.

The exceptions are very rare; only two individuals were seen who had worked for years in the mines, and had suffered no inconvenience beyond a little swelling of the gums. They ascribe their exemption partly to their good constitution, but chiefly to their attention to hygienic measures. They practise temperance in every respect, and carefully rinse out the mouth with tepid water on leaving the mine; to which latter precaution they ascribe the chief share in their preservation from the disorders of the mouth. When this fact is connected with the observation of Don Gervasio, that the ulcerations are most common on that side of the mouth which is most used in chewing, and with the common opinion, that the taking of food in the mine is one of the most fertile causes of the stomatitis, it seems probable that the direct absorption of the mercury by the mouth, contributes powerfully to cause and keep up these affections.

The great variation which is observed in the rapidity and violence with which different individuals are attacked by the mouth affection, appear to depend chiefly on peculiarity of constitution. Some are affected after one day's exposure, others resist it for weeks or even months.

Little need be said as to the treatment. When the affection is slight, the miners treat themselves by touching the ulcerations with alum or sulphate of copper. In the hospital, the common treatment for mercurial salivation is followed; at first emollients and astringents; afterwards, for the ulcerations, alum or sulphate of copper; if the inflammation is very active, they use bleeding and mustard foot-baths, the patients are put on low diet, and afterwards they are fed on milk, which according to the common opinion is very beneficial to the Almaden miners.

The affections of the nervous system described collectively under the common name of the mercurial trembling, are the most interesting of all the effects produced on the miners by the absorption of mercury. In reality, the mercurial poisoning manifests itself in the Almaden miners in the form of several groups of phenomena, corresponding with different degrees of poisoning; and it is only at the beginning, before the malady has acquired its full intensity, that the trembling, strictly speaking, forms its principal character. The distinctions of the cases by the miners themselves, into *temblones*, *calambristas*, and *modorros*, have been already stated, and will be adhered to in the following observations.

Is it the case, that in the various professions employing mercury, and which have hitherto furnished almost all the cases on which medical observations have been made, that the symptoms which correspond to the two last degrees of the poisoning are awanting, or how can we explain why these symptoms are either entirely omitted, or barely indicated in most of the classical treatises on mercurial trembling? It is only here and there that we meet with isolated cases, which enable us to affirm, that convulsions, pains, and mercurial paralysis, may be produced in any circumstances, as well as at Almaden, from prolonged exposure to mercurial vapours.

1. Mercurial trembling, properly so called (*temblor*). After the lapse of

greater or less time, according to the nature of the work, a slight tremor manifests itself, commencing in the upper extremities. Tremor, to this extent, is a phenomenon so common, that it may be said that no one in the mines escapes it. It is not only compatible with continuation at work, but even with excellent general health. Many workmen, of fresh and healthy aspect, when asked if they have trembling, reply that they do tremble a little when out of the mine, and, when asked to extend the hands, the arms present a succession of short and rapid oscillations, which no act of volition can control. This state of matters may continue for a long time without the supervention of any other symptoms, in those who lead a regular life, and adopt the hygienic precautions formerly alluded. The trembling is not constant, and varies much in intensity. Thus it ceases almost completely in the interior of the mines, in bed, and when both mind and body are quiescent. It increases under the influences of mental emotions, and certain states of the atmosphere; it is very sensibly aggravated by alcoholic potations. Of all meteorological agents, that which exerts the most marked influence on it is the east wind (*solano*), one of the predominant winds of the territory. Don Eusebio Sanchez, director of the establishments of Almadenejos and the Val de Azogue, whose duty takes him frequently into the mines, and who is slightly affected with tremor, has told the writer, that when the solano blows, his tremors augment so much as to prevent him absolutely from writing.

2. Mercurial trembling, with convulsive motions and pains (*calambres*). When the mercurial trembling, as above described, has lasted for some time, and the patient continues exposed to the cause which produced it, convulsive movements and pains are added to it, and the disease then bears the name of *calambres*. At this stage, the proper trembling is replaced by a series of muscular contractions, stronger, more extended, and engaging a more considerable number of muscles. The phenomena presented by the workmen who are *temblones*, bear a great resemblance to the tremor of drunkards. The *calambristas*, on the contrary, are more like those labouring under chorea. The convulsive character of the contractions depends upon the predominance of the flexor over the extensor muscles. This predominance is such, that when at the coming on of an attack, the calambrista seizes any object, no effort can make him let go his hold; and the will of the patient is as ineffectual as external force. It is often seen that patients, who at such a time grasp the clothes of those who approach them, tear out the bit which they have seized.

When these convulsive phenomena exist, there soon supervene those pains, which, though not constant, form nevertheless one of the chief characters of the calambres. According to the statement of a Spanish medical writer, these pains most commonly occur in those who, having already the convulsions, persist in going into the mines. According to the same authority, the part generally first affected is the great toe, sometimes it is the thumb, and from these points the affection extends till it invades the whole muscles of the body, even those of organic life, and particularly the stomach. The pains and convulsions are not always of relative intensity; sometimes, it is said, the pains invade one side of the body only, whilst the other is affected by the convulsions. The pains of the calambres are piercing, acute, and sometimes of intolerable intensity. The convulsions, like those of the chorea, are not continuous. Jussieu had remarked this long ago, and had very properly observed, that they are more marked when the patients are under impressions of surprise or fear. The writer had a good opportunity of observing the influence of moral causes, when, in company with the superintendant of one of the mines, he addressed some calambristas who were there, to question them about their complaints. When he entered the mine, these men were all calm, but when brought up before the superintendant, the muscular movements increased so much as to render it necessary to support some of them to prevent them from falling, and they made their replies to questions almost unintelligible. It was no doubt this cause, operating in producing occasional accessions of the malady, which caused it to be supposed, that among the convicts in the mines, the convulsions were often feigned. This state of matters still continues, though there are now no convicts in the mines.

In the calambristas the functions are more or less impaired, according to the degree of the malady. There is generally want of appetite. The pulse is not affected, except when there are febrile accessions, which are regarded as a bad symptom. The skin is generally rather cold than warm, except in feverish attacks. The most remarkable phenomenon is the insomnolency, which attacks the patients from the time when the pains supervene upon the choreic movements.

3. Mercurial convulsive paralysis, with

impaired intellectual faculties. When the above state continues to make progress, the patients are observed at length to lose their vital powers, and become as if paralytic. They are now called *modorros*. These unhappy persons have an almost constant trembling, occasionally assuming the convulsive character, but without any of the pains of the calambres. The intellect also gives way, especially the memory; some of them who are unfit for any work can still walk about; and one, who was observed by the writer creeping along the walls with the help of a stick, presented a singular spectacle. He made one step forward, then stopped, throwing back his head and trunk, as if he found himself confronted by a phantom; then he again threw himself forward, as if he were going to fall on his face. The writer had visited in their houses many of the modorros, who, for several years, had never been able of themselves to rise from their chairs, or put on their clothes, or take their food. Two of them had so lost their memory, and the faculty, if not of comprehending, at least of answering questions, that absolutely nothing could be learned from them. Their physiognomy bore a strong impress of stupidity, and they only articulated vague and confused sounds. They are kept in their houses at the fireside, seated in a chair, like infants. A somewhat similar state was observed in an old miner, who answered questions pretty exactly, although his speech was so interrupted, that he could be understood only with extreme trouble. His age is fifty-four, though he looks to be seventy. He eats, digests, and sleeps well, and has no pain even when the muscular movements are very strong. He fears changes of cold and heat, and without quitting his fireside knows when the *solano* blows, as he is then more affected by the convulsions. He sweats frequently, and his hands are habitually clammy and cold.

The convulsive movements in the modorros are also affected by mental emotions, as well as by the east wind. The predominance of the flexors over the extensors is particularly marked, and it is only the latter which appear to be paralysed. It is singular to observe these helpless wretches, incapable habitually of making any regular movement, have the power, when under the influence of any mental emotion, especially anger, to seize an object, and hold it with such tenacity, that it cannot be forced out of their grasp.

No mental derangement, in the strict sense, is observed in any of the stages of the mercurial nervous disorders. In the most advanced cases, the patient seems incapable of any mental act, but without any delirium.

Treatment of the nervous disorder. In the first degree, or that of mere tremor, it is enough for a cure, in most instances, to quit work, change the mode of life, abstain from wine, and keep up the action of the skin.

When the convulsions with pains have come on, the cure is more difficult, and is rarely complete. The choreiform contractions and the pains may be subdued, but almost always there remains a trembling, liable to be aggravated at times. It is affirmed that a former physician, D. Manuel Carrasco, had succeeded in curing the calambres by anti-spasmodics and narcotics, chiefly musk and opium, and D. Vicente de Areraca considered the former as a specific against the calambres. He gave it in doses of 5 centigrammes (little more than half a grain) in the evening, repeating it in the night, and associating it with opium when the pains and insomnolency were great.

Sulphur was also employed in the treatment of D. Manuel Carrasco. He gave a scruple towards bed-time every night in a decotion of sweet acorns [*Quercus ballota*], and anointed the more painful parts twice daily with an opiate liniment.

It has never been the practice to bleed except when the patients were robust, and the pulse slow and full. Carrasco recommended great caution in the use of the lancet, and his successors appear in this, as in other points of practice, to conform very much to his ideas.—*Correspondent of L'Union Médicale*, Nos. 120 and 129, 1848.

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MONTHLY RETROSPECT

OF THE

MEDICAL SCIENCES.

MARCH, 1849.

CONTENTS.

I.—MORBID ANATOMY, PATHOLOGY, AND PATHOLOGICAL CHEMISTRY.

71.—*Source of Error in Andral and Gavarret's Method of Analysing the Blood.* By Dr MOLESCHOTT.—The process employed by MM. Andral and Gavarret (Ann. de Chimie, tom. lxxv.) is as follows:

1. The proportion of fibrine is estimated by stirring a known weight of fresh drawn blood, and then washing, drying, and weighing the fibrine which adheres to the "balai."

2. Another weighed portion of blood is evaporated at 212°; the residue represents the *total solids*—the loss the *water*.

3. A weighed portion of serum is evaporated at 212°; by again weighing it, the relative proportions of *serous solids* and *water* are at once determined.

4. It is assumed that the whole water in the blood is uniformly charged with serous solids; hence the amount of globules is calculated by deducting from the total solids (2) the due proportion of fibrine (1) and an amount of serous solids proportionate to the water lost by the blood during evaporation (2).

EXAMPLE.

1. 1000 grains of blood yield of *fibrine*, ... 3
2. 1000 grains blood evaporated yield { Total Solids, . . 200 / Water, . . . 800
3. 110 grains serum evaporated yield { Serous Solids, . . 10 / Water, ... 100

4. The total solids minus the fibrine, *i.e.*, 200 — 3 = 197. But by (3) it is found that for every 100 of water, 10 of serous solids must be deducted. From 197, therefore, 80 must be subtracted; *i.e.*, 197 — 80 = 117 globules.

The analysis of 1000 parts of blood may accordingly be now stated as follows:—

Fibrine, . . .	3
Serous Solids, . .	80
Globules, . . .	117
Total Solids, .	200
Water, . . .	800
Total,	1000

Dr Moleschott states two objections to the above process. *First*—A part of the water of the blood holding albumen, salts, &c., in solution, is undoubtedly contained within, and forms an essential part of the blood corpuscules; but in Andral and Gavarret's calculations, these albuminous and saline constituents are deducted, and hence the true proportion of globules is considerably underrated. As it is impossible to determine with accuracy the relative amount of water contained in the blood plasma, and within the cavities of the globules, this error of analysis does not admit of correction. *Second*—A more important source of inaccuracy relates to the determination of the amount of serous solids. The first portion of serum which separates from a portion of blood, contains (according to Thackrah) a less proportion of albumen than the serum which afterwards separates. Andral and Gavarret, however, distinctly state, that it can easily be shown by analysis, that the portions of serum which successively separate are identical in composition. Dr Moleschott has investigated this subject by experimenting upon ox blood. Four portions of serum were successively collected and examined. The first, which separated from the clot in ten minutes, contained 8·13 per cent. of solids; the second, which separated in two hours, contained 11·56; the third, which separated in twelve hours, contained 18·53; the fourth, which separated in twenty-four hours, contained 20·03. According to Dr M., solutions of organic or inorganic matter, containing solid particles, become most concentrated in the vicinity of the particles. In proof of the universality of this physical law, he refers to the phenomena of crystallization, and to original experiments with different fluids. He infers that the serum in and around the clot must be more concentrated than that which usually floats at the surface of the vessel into which the blood is received, and that, since this is the very portion usually selected for analysis, the amount of serous solids determined from it must be too small, and the proportion of globules consequently overstated. Moreover, the errors pointed out in these two objections, although of opposite kinds, will not necessarily compensate each other.—*Zeitschrift für Rationelle Medizin*, Band vii. Heft 2.

[The first of Dr Moleschott's objections will, we believe, apply with equal force to every method hitherto devised for estimating the amount of the corpuscular element in blood. Chemical accuracy cannot of course be attained by Andral and Gavarret's process, but results sufficiently accurate and uniform for pathological purposes may, we believe, be arrived at. We can see no reason for regarding the albumen and salts held in solution within a blood globule as an essential ingredient of the corpuscule; and there seems no greater inconsistency in subtracting from the globuline these soluble constituents, than in deducting their solvent-water. Any considerable variation in the amount of globules being accompanied with a corresponding variation in the amount of *corpuscular envelopes*, will of course be detected by Andral's method of analysis.

Dr M.'s second objection is possibly better founded, and suggests the propriety of waiting for complete separation of the serum, and of mixing its different strata before selecting a sample for analysis. We have twice made the following experiment since reading Dr M.'s essay. A patient was bled at the arm to ℥ xii, and the blood received in a tall narrow preparation jar, which was then carefully covered in order to prevent evaporation. The *first* portion of serum (which separated within half an hour) was set aside in a stoppered phial for examination; the jar was then again covered, and remained undisturbed for twenty hours. Other two portions of serum were now removed, viz., No. 2 from the surface of the fluid, and No. 3 from the vicinity of the clot; the densities of all three, being taken by means of a specific gravity bottle and delicate balance, were found in both experiments to correspond most accurately. We subjoin an account of

EXPERIMENT II.

S. G. bottle contained—	Grs.
of Distilled Water at 60°	105·73
of Serum No. 1 at do.	108·32
of Serum No. 2 at do.	108·32
of Serum No. 3 at do.	108·31
The density of 1 and 2 was consequently	1024·49
... ... of 3 . . .	1024·40

The difference ·09 (equivalent to about ·3 of a grain of solids in 1000 serum) was in favour of the *earlier* samples, and may be accounted for by some trifling error in manipulation. As it may be assumed that the solid contents of serum bear a direct ratio to its specific gravity, we conclude that Andral and Gavarret's process might have been applied in this case without fear of error.]

72.—*On the Pathology of the Muguet or True Thrush of Children.* By Dr Willshire (Medical Society of London).—It is now well known that Gruby, Berg, and other observers, have ascertained that the curdy matter which is deposited in the mucous membrane of the mouth and œsophagus of children in this disease is a vegetable organism, possessing a microscopic structure very similar to the lower orders of fungi. Dr Willshire corroborates this fact from his own observation, but is disposed to view the presence of the parasite, not as the cause of the disease, but as the effect of an exudation previously thrown out, and therefore only a contingent or secondary phenomenon, dependent upon the laws regulating the decomposition of the exuded matter. He thinks that the exuded matter, loaded with the materials of the child's aliment, passes partially into a species of decomposition, analogous to fermentation, and gives rise, as in the latter process, to a vegetable growth.—*Med. Gaz.*, Feb. 2, 1849.

[The author alludes to the experiments of Gruby, tending to prove that the diseases depending on vegetable parasites cannot be inoculated; but he does not appear to be aware of the experiments of Dr Hughes Bennett, in which direct inoculation of the tinea favosa was produced.]

73.—*On the quick Absorption of Virus, and on the utility of Cauterization in Poisoned Wounds.* By M. Renault, Professor at the Veterinary School of Alfort.—M. Renault has performed two series of experiments.

First Series.—Thirteen horses were inoculated with the virus of glanders. Ninety-six hours afterwards the actual cautery was applied freely to the wound in two of these horses, and a circular piece of skin was removed from around the inoculated point. Both died of glanders, one in eight, the other in twelve days. The remaining eleven horses were cauterized at periods varying from one to fifty hours after inoculation. All died of the disease in from six to twenty days.

Second Series.—Twenty-two sheep were inoculated with the virus (claveleux). The wounds were all deeply cauterized, at periods varying from five minutes to ten hours after inoculation, notwithstanding which the genuine (claveleux) pustule was developed on the site of the wound in every case.

From these facts M. Renault concludes, that, unless applied immediately on receipt of the injury, cauterization is useless, on account of the very rapid absorption of the virus.—*Gaz. des Hôpitaux.* Jan. 23, 1849.

74.—*Milky Urine.* By M. Reveil.—The presence of the elements of milk in the urine has been observed by the author, under circumstances such as appear to preclude all chance of error. The case was one of a child at the breast, and M. Reveil took care to operate on urine passed into a clean vessel in his own presence. It was milk white, or slightly yellowish on emission; when left unmoved for some time an oily scum formed on the surface, while a mucous sediment subsided. Ether rendered the urine transparent, and heat produced a coagulum. Further examination showed the presence of all the elements of milk.—*Journal de Chimie Médicale*, Jan. 1847, and *Union Méd.*, Feb. 15, 1846.

II.—PRACTICE OF MEDICINE.

75.—*Clinical Notes taken in the Hospitals of Paris and Vienna.* By Alexander Fleming, M.D.—*Paracentesis Thoracis in Acute Pleuritic Effusion.*—Some remarks on this operation by Dr M'Carthy, the intelligent Parisian correspondent of the *Medical Times*, have induced me to refer to my notes on the subject. Although Professor Trousseau has contributed powerfully to impress upon the profession the advantages of paracentesis thoracis in acute effusion into the chest, the proposal has not ori-

ginated with him. The operation has been performed by Skoda of Vienna, and Pfeuffer of Heidelberg, and in some of the older, more especially German writers, the indications for its performance will be found distinctly described.

It is a rare occurrence, nevertheless it sometimes happens, that in pleurisy, while the inflammatory fever is still present, and only a few days have elapsed from the onset of the disease, the serous effusion may be so copious, as not only to compress the lung of the affected side, but also to interfere so much with the action of the lung of the opposite side, that death from asphyxia is the result. Under these circumstances, viz., extensive effusion with impending asphyxia, puncture of the thorax is not only admissible, but essential for the preservation of the patient. Professor Trousseau recommends the withdrawal of all the fluid at once; and from the happy results of this practice, which I witnessed in a case in his wards, I believe it to be the best. In the case referred to, the lung expanded readily to occupy its normal volume, and the patient obtained immediate relief to her agonizing sufferings.

Professor Trousseau has met with nine cases of pleurisy where the effusion was so abundant as to threaten death by suffocation. In three of these the patients died asphyxiated, the operation not having been had recourse to; the fluid was drawn off in the other six cases, and all recovered.

In chronic pleuritic effusion, the operation is much less successful. Thus, in five cases, where puncture was performed by M. Trousseau, only one recovered. This want of success is due to several causes, among which may be mentioned the difficulty which the lung has in resuming its former volume, and the probable existence of secondary tubercular disease in its texture.

The following case, taken from Dr M'Carthy's report, illustrates the above remarks:—

F. C., aged 19, was confined on the 19th of January; on the third day after her confinement she got up, and since that period complained of a slight pain in the left side. On the 1st of May she caught cold, and on the 4th was conducted to the hospital, where considerable dilatation of the left side of the chest, accompanied with dulness on percussion, and fever (pulse 100) were observed. The pulsations of the heart were distinctly recognised beneath the right breast. The spleen was hypertrophied, and descended as low as the spine of the ilium. Infusion of digitalis, and small doses of calomel, repeated every hour, were prescribed, and were continued for two days, during which the pleuritic affection increased in abundance. Paracentesis was then performed in the seventh intercostal space, close behind the mamma; 2400 grammes (5lb.) of fluid escaped, and coagulated spontaneously a short time after the operation. The heart immediately returned to its place, and the resonance of the chest was restored in all but the most inferior part of the posterior region. The signs of the persistence of a small quantity of effusion were still perceptible during a few days, and the patient left the hospital a week after the performance of the operation completely cured.

The trocar recommended by M. Trousseau in the performance of paracentesis thoracis, is noticed at p. 36 of the *Retrospect* for 1848.—(*To be continued.*)

76.—*On Idiopathic Glossitis.* By Dr GRAVES.—Dr Graves gives the following cases of this rare affection:—

I. Mr B., a medical student, solicited my attendance. I found him labouring under severe febrile symptoms of a week's continuance, ushered in by violent rigors, great pain in the neck and occiput; somewhat relieved on the second day by profuse epistaxis. The left half of the tongue became then very tender and painful, and gradually increased in size. At my first visit it was enormously swollen, and nearly filled the entire cavity of the mouth, which could scarcely be closed on account of the protrusion of the tongue. The right half of the tongue was perfectly natural, and its comparatively diminutive size formed a striking contrast with that of the left.

Two or three applications of six leeches at a time to the inflamed half, part of which, at my first visit, appeared on the verge of gangrene, produced a speedy decrease of the tumour and inflammation. The bleeding from the leech bites was very great. Articulation and deglutition, before very difficult, were quickly restored. He is at present (two years since the attack), able to speak perfectly, although the left half of the tongue is still perceptibly increased in size.

II. The following case was communicated to Dr Graves by Dr Neligan; it occurred in a stout countryman aged forty, and was caused by his working for some days up to his waist in water, in draining a river. The affection came on with rigors and the ordinary symptoms of fever, as in the case of Mr B., but the entire tongue was engaged, and was so enormously swollen as to prevent the patient

from articulating, swallowing, or closing his mouth. Deep incisions were made transversely into the substance of the organ, which were allowed to bleed freely, and he was put rapidly under the influence of mercury; this plan of treatment proved so effectual, that he left hospital on the third day quite well.—*Clinical Lectures by Dr Graves*, vol. ii.

[Our readers will find an interesting case of this disease detailed in our last number by Dr Selkirk of Carluke. We beg also to refer them to the first volume of the *Edinburgh Journal of Medical Science*, 1826, for the account of four interesting cases taken from the foreign journals of that period.]

77.—*On the Disease of the Skin termed Keloides.* By Erasmus Wilson, F.R.S. —In this paper, the author, after considering the etymology of the word "keloid," and the manner of its employment by Alibert—the relation of the disease to cancer, and the opinions of writers upon this question—the rarity of the affection —its etiology, and the more remarkable characteristics of the morbid growth—proceeds to point out the distressing symptoms by which it is often accompanied, with the view of determining how far an operation for its removal might be considered desirable. In those instances in which operative procedure had been adopted, the disease had returned in the cicatrix, and in one case, also, in the smaller cicatrices left by the sutures used in the operation. The conclusion to which the author arrives is unfavourable to operative procedure; and he observes, that in no case is an operation warrantable until every chance of relief by other means has failed. The author then passes in review the treatment recommended by those authorities who had written on the subject, and concludes with the detail of three cases of the disease.

All the cases occurred in healthy-looking men: in the first, the disease was developed on the presternal region, and also on the leg; in the second, on the shoulder and gluteal region; in the third, as in the first, on the sternum. It presented itself in the two forms designated by Alibert *keloide radiciforme*, and *keloid cylindracée*. In the first and second cases it gave rise to extreme inconvenience, and to much of the peculiar burning, stinging, and smarting pain, which is characteristic ef the disease: but in the third it was extremely reduced in size, having undergone a spontaneous cure.—*Proceedings of Medico-Chir. Soc. of London, in Med. Gaz.*, Jan. 26.

78.—*On the Bronchitis and Pneumonia of Infants.* By Ray Charles Golding, M.D.—The author, after indicating the reasons why a diseased action of the respiratory organs is so easily established in early life, and pointing out the leading predisposing causes (the exciting cause both of bronchitis and pneumonia being always exposure to cold), endeavours to systematize the symptoms and physical signs of infantile bronchitis. We give his conclusions in an abbreviated form.

1. The bronchitis of children may be acute, attended with copious purulent secretion, dyspnœa, and inflammatory fever, or be mere congestion of the lining of the air-tubes, with increase of their natural secretion, without fever or dyspnœa of any importance.

2. The degrees of dyspnœa and fever vary much; they are most intense when the general constitution is most vigorous, and in such cases bronchitis is apt to pass into lobular pneumonia. The bronchitis of measles and scarlatina is attended with intense fever, and prone to pneumonic complication.

3. Bronchitis is apt to become chronic in strumous children; and where a predisposition to vesicular emphysema exists, frequent bronchitic attacks are a fertile source of that lesion.

4. Pneumonia, when supervening on bronchitis in children, is usually lobular; sometimes it is lobar, attended with the same symptoms and changes as in the adult; that following scarlatina and smallpox is usually of the lobar kind; and, when the inflamed portion is near the surface of the lung, pleurisy is not unfrequent.

5. Expectoration is usually profuse and purulent, though swallowed and sometimes vomited with other matters in the stomach.

6. The respirations are increased in frequency, often forty or forty-five per minute; the expiration is usually prolonged; the râles vary in character and loudness, according to the size of the tubes at the spot examined, and the nature of the secretion in it. The following points regarding these sounds are of practical value. *a.* Although commixed, the varieties of the mucous and crepitating râles may with care always be discriminated. *b.* Mucous râles indicate free effusion into, and thick consistence of, the secretion in the bronchial tubes, and consequently more of a congested than an inflammatory

condition of the parts. If inflammation has been previously acute, it may be known to be resolving when such râles are audible.

7. Crepitation indicates scanty effusion into the bronchial tubes, with more or less complication of the pulmonary parenchyma. This sound, whether it be large or small, makes the commencement of inflammation, or such a congested state of the parts yielding it, that antiphlogistic measures must be resorted to.

8. Mucous râles are, according to Dr Ray Golding, not audible during inspiration, whilst crepitation is chiefly heard at the end of inspiration, or during the prolonged expiration usually present during these circumstances.

9. A large portion of lung must be condensed by inflammation to elicit a well-marked dulness on percussion; for the lungs of infants are so well permeated by air (except when a mechanical obstruction exists to its ingress), that a small portion of condensed lung is not easily detected. Blueness of the lips, with general pallor of the surface, indicates a degree of inflammation, or extreme congestion, which, if not relieved, must prove fatal.

10. The prognosis in these cases is uncertain and hazardous. So long as the cutaneous transpiration is kept up, and other organs remain unaffected, no apprehension need be entertained. But if the respirations become frequent, the surface pale and dry, the lips livid, and vomiting, coma, or convulsions supervene, the case is nearly hopeless; though even then the efforts of the constitution, aided by diaphoretics and active purging, may ward off a fatal result.

11. With respect to treatment, Dr Ray Golding observes, that in young children he finds ipecacuanha as efficacious as tartar emetic in the allied affections of adults. Children under twelve months will bear half a drachm of the wine every two hours; if the case is urgent, the same dose every hour. Above twelve months, one drachm may be given.

The first and second doses may produce vomiting; this is of no consequence, as the copious sweating immediately produced by it is highly serviceable.

Active purging, sinapisms to the thorax, and the warm bath, must be used as adjuncts.—*British Record of Obstetric Medicine.*

79.—*Atelectasis Pulmonum.* By Dr FRIEDLEBEN.—The author attempts to show that atelectasis (the fœtal state of the lungs), is always produced by some obstacle to the complete establishment of respiration. He maintains that this pathological condition is not confined to new-born children, but is also met with in infancy.

The anatomical characters of the lesion consist of a brownish colour of the portion of lung which has not respired, and which is distinctly separated from those which have admitted air. The brown portions are hard, and do not crepitate, and sink in water. They can be artificially inflated, and in that case closely resemble healthy lung. Amongst other alterations are observed an abnormal quantity of mucus in the bronchial tubes, the foramen ovale open, the presence of coagula in the cavities of the heart, friability of the liver and spleen, injection of the cerebral vessels, and in some instances true apoplectic effusions.

The diagnosis of atelectasis pulmonum is easy, if we compare the physical with the rational signs. When the disease has lasted a few days, cyanosis always declares itself, less in consequence of the patency of the foramen ovale, than as a result of deficient hæmatosis. The author notices all the circumstances which modify the progress and termination of the malady. The latter is not always immediately fatal, but in some cases persists to infancy. It is to an attack of bronchitis in the fœtal state, that this persistance is, in the author's opinion, to be attributed; the bronchial ramifications being secluded, and the entrance of air prevented.

The anatomical differences in this case between the sound and diseased lung become very marked, the latter appearing of a dirty violet colour, like that of the cortical portion of the kidney; the pleura covering it is also thicker, and insufflation is difficult or impossible. The consecutive lesions most frequently observed are dilatations of the right ventricle, amplification of the foramen ovale, effusion into the pericardium, œdema of the lungs and cellular tissue.

The lengthened details into which the author enters respecting the anatomical appearances in atelectasis, have chiefly reference to the diagnosis from fœtal pneumonia, and are intended to prove that it is essentially the same lesion which French writers have inscribed as *carnification* of the lung.

The author thinks that he has been able to distinguish three forms of the malady. In the first, the infant has mucous râles

and cough immediately after birth, but it sucks well; later, paroxysms of coughing come on, with threatened asphyxia, and a livid colour of the face. These attacks end in abundant vomiting, and the child then resumes its wonted appearance. There is a dull sound on percussion, over several points of the chest, with a bronchial souffle; in the other portions of the lungs, mucous râles and puerile respiration are heard. After a short time the heart begins to beat irregularly, then the impulse becomes more feeble. At the same time, the lips and extremities become hard, the features swollen, and the respiration embarrassed. The fits of coughing also become more frequent and prolonged, œdema of the lungs follows, and death ensisues with symptoms of cerebral effusion.

The second form is characterized by less violence at first, but is speedily complicated with symptoms of pneumonia, and death ensues even more rapidly than in the preceding.

The third form is the most rapidly fatal. The infants at birth have a slight cough; but fever is suddenly lighted up and is accompanied with symptoms of follicular enteritis. In this form the infant appears to die of exhaustion.—*Archiv für Physiologische Heilkunde,* and *Prov. Jour.,* Feb. 21, 1848.

80.—*Employment of Cold Affusions in Typhoid Fever.*—M. Récamier's bold method of treatment, in applying cold affusions in the severest forms of acute febrile affection, has been attended by the happiest results in the wards of the Hôtel Dieu, where it has long been most successfully employed, both by himself and others. It must, however, be borne in mind, that it should only be resorted to in cases presenting a certain order of indications, and that even then its employment requires circumspection and caution. It is most especially indicated in the ataxic form, and during the last stage of typhoid fever, when we wish to induce at once a violent shock to the irregular functions of the nervous system, and an energetic reaction towards the peripheral organs. M. Tessier lately obtained the most unexpected success from this treatment, in a patient whose case appeared hopeless. Six buckets of water, at 68° Fah. were here thrown over the patient, and as the low temperature of the body gave little hope of a reaction being induced by the unaided powers of nature, M. Tessier ordered one drachm of croton oil to be applied by friction to the trunk and extremities. On the following day the patient was evidently better, and he ultimately recovered.—*L'Union Méd,* No. 116.

III.—PRACTICE OF SURGERY.

81.—*Observations on the Utility of the Double Ligature for certain Arteries.* By E. Chassaignac.—The object of this paper is not to inculcate the use of the double ligature as a general rule, but merely to point out what the author considers its benefit in certain special cases, especially in that of the common carotid. He points out, first, that when a ligature is applied to the carotid, it is subjected to a double shock at each pulsation—one direct from the heart to the artery, the other propelled from the terminal divisions of the artery towards the trunk of the vessel; in a word, he calls the first of these the direct or cardiac impulse—the second, the indirect or recurrent impulse. Admitting then, he says, that it has been shown that every ligature applied on the carotid is subjected to a double impulse on the part of the blood, which strikes against it both by the direct and indirect current, I consider this circumstance as likely to give rise to the premature falling off of the ligature and secondary hæmorrhage. Is not the means to avoid this double impulse on one ligature to apply two distinct ligatures—the one to bear the direct, the other the indirect impulse? We oppose a double resistance to a double force. But there is one particular case in which, perhaps more than all others, it is of importance to avoid the indirect impulse—that is, when a ligature is applied to the carotid, according to Brasdor's method, in a case of aneurism of the innominata. What do we propose by this method of operating?—is it not to obtain as far as possible the coagulation of the blood in the aneurismal sac? But it is known that all movement obviates this coagulation, and therefore the indirect impulse against the ligature can only be regarded as an unfavourable condition; the way to remedy it is to apply a double ligature.

As conclusions from the preceding statements, he submits the following propositions:—1. If the double ligature ought to be rejected as a principle of general rule, this practice ought not to be absolutely condemned without exception, and indiscriminately. 2. Every ligature applied to the carotid ought to be

considered as subjected to the constant action of a double impulse, the one *direct*, the other *indirect*. 3. It is useful to apply a double ligature to the common carotid, as well as to every large artery which presents a strong recurrent circulation. 4. The use of this double ligature is still more obvious in cases where the carotid artery is to be tied in operating by the method of Brasdor.—*Gaz. des Hôpitaux*, Nov. 30, 1848.

82.—*On Strangulated Hernia, and the use of Chloroform for its Reduction.* By M. MICHEL GUYTON.—The author, after stating the usual causes of strangulation, points out that the distension by gas is one of the most frequent causes of irreducibility. Irreducibility, in consequence of an accumulation of gas, is the first symptom of strangulated hernia. It is simply a gaseous tumour, which, from purely mechanical laws, comes to be tightly impacted in an opening through which it has passed; but soon the vitality of its coats comes into play, and inflammation and other secondary lesions are the natural and inevitable consequences, and these are what give hernia its dangerous and justly formidable characters. At first, reduction by ordinary taxis is possible, and generally will be easily accomplished; it depends on the force of contraction in the abdominal muscles, the degree of distension of the hernia, and, above all, on the width of the opening of communication. If one cannot always reduce it, it is owing to the difficulty of exercising on the intestine a pressure sufficient to counterbalance that of the whole abdomen: that is to say, because our force is employed upon a small extent of surface, and one difficult to compress. With chloroform, one has not to combat muscular action, the gases are quickly dispersed, and the intestinal walls collapse and readily re-enter. Further, distension of strangulated hernia by gas, permanent and involuntary contraction of the abdomen, constitute the two principal elements of strangulation; pain is only secondary—its importance lies entirely in its results, namely, the muscular contraction. Chloroform acts only on this contraction and on pain; the rings remain in the same condition—they cannot be slackened either by abolition of muscular force, which has no effect on them, nor yet by direct relaxation. Chloroform, in destroying the true and principal cause of strangulation, namely, contraction, destroys also its results: the hernia empties itself, and is reduced. It follows, therefore, that chloroform is most called for in hernia composed entirely of intestine; and that the reduction of compound hernia is more difficult than that of simple enterocele, nay even at times impossible. Chloroform might be useful in those cases of epiplocele, and entero-epiplocele where omentum predominates, by abolishing the pain produced by the various manœuvres, and that involuntary and powerful contraction of the muscles by which every organ in the abdomen has a tendency to escape. But it is no longer so direct in its influence; the omentum forms without the ring a hard solid tumour, incapable of being reduced suddenly by pressure, and, if its diameter is very much disproportioned to that of the opening, its return is quite impossible.—*L'Union Méd.*, Nov. 23, 1848.

83.—*Bad Effects sometimes arising from Taxis in Hernia.*—In speaking of the taxis, Mr Gay says, "It is difficult, and even impossible, to obtain any data upon which to calculate the proportion in the total number of deaths after strangulation, which is due to the operation of the manual attempts made to relieve it; or what share these efforts have in the production of the post-mortem appearances in persons on whom the stricture has been relieved by the knife. From the general condemnation of the taxis, almost to proscription, there is every reason to apprehend that much of the fatality in hernia is to be ascribed to it."

Arnaud recites a case in which the taxis was succeeded by suppuration of the omentum. Petit says, "Combien de fois a-t-on vu périr des malades le même jour que la réduction leur a été faite? à l'ouverture des cadavres, on a trouvé aux uns le boyau gangrèneux, aux autres il étoit crevé, et les matières fecales repandues dans le ventre." Other instances are cited by Morand, Bell, Sir A. Cooper, South, Teale, and others; and it would appear from these that the pathologic indications of injury from taxis are peritonitis, gangrene, and rupture of the intestine. "It has fallen to my lot," Mr Key states, "to see more than one case in which the patient has fallen a victim to a long and continued succession of violent attempts with the taxis. These are followed by a discharge of blood per anum from the bruised vessels of the lining membrane of the gut, which frequently exhausts the patient after the hernia has been returned."

Mr King has given a tabular view, from unpublished records, of thirty-eight fatal cases of hernia, to illustrate the causes of death, &c.; from which I make the fol-

lowing extract as it relates to the effects of taxis:—

In 1 the hernia was reduced by taxis; death by peritonitis; the gut red.

In 1 the hernia was reduced by taxis; recovering.

In 1 the hernia was reduced by taxis, sac and all; the stricture remaining.

In 6 the hernia was reduced by taxis, but ruptured; death by peritonitis.

Mr King deduces that nearly one-fourth of the deaths by hernia follow the simple taxis. In one of these cases a reduction "en bloc" was effected by the taxis; and in another, it "was the same thing but for the operation." One patient died from rupture of the bowel, whilst in the other cases death seems to have resulted from peritonitis. The rude employment of the taxis *during an operation*, is, I believe, not unfrequently the cause of death. I have seen an instance of this kind; and am led to think that when the return of the bowel is not promoted by the division of the presumed seat of stricture, and the obstacles are not clear to the operator's mind, the return of the bowel by violence is often preferred to an abandonment of the operation. But in order to rescue the taxis from the opprobrium which its abuse has cast upon it, and to illustrate the advantages which accrue from its judicious employment, I have taken the liberty to construct the following table from Mr Poland's report of the cases which were treated in Guy's Hospital during the years 1841-42:—We learn from this table, which is too large for insertion, that of 19 cases of hernia, 12 scrotal, 6 femoral, and 10 ventral, only one, a scrotal case, after strangulation had lasted twelve hours, terminated fatally. This table is an abundant plea for its employment, where there are no symptoms of inflammation or other circumstances to interdict it. The question, however, occurs in reference to the taxis, as on a former occasion in reference to delay—why, after the oft-repeated cautions against the contrary mode of its employment, is its use not more constantly limited to the most gentle, and always more successful, kind of pressure? —*Gay on Femoral Hernia.*

84.—*Statistics of the Surgical Hospital of Barcelona.*—Dr Mendoza has published the surgical statistics of the hospital of Barcelona for the year 1847. It appears from these that there have been ten amputations, three of the thigh, four of the leg, two of the arm, one at the wrist; of these two died (one of the thigh, and one of the leg). There have also been, during the same period, seven cases of stone, five of which were operated on, four adults by the bi-lateral operation, and a child of twelve years by the lateral: one only sunk, two months after the operation, from acute enteritis. Of three cases of strangulated hernia, one was reduced under chloroform when just about to be operated on; the second could not be reduced, for the hernia, which presented all the characters of a congenital entero-epiplocele, was complicated with a displacement of the elements of the cord, and adhesion between these organs; the third was in the case of a female with umbilical hernia, which terminated in the formation of two fæcal fistulæ, which were nearly cured, when a fit of indigestion gave rise to a recurrence of the urgent symptoms and peritonitis, which yielded to diet and purgative enemata. In treating fractures, Dr Mendoza employs the starch bandage. He relates a curious fact of a man who, from a wound by fire-arms, had suppuration in the parietal region of the skull; trephining was rendered necessary by the symptoms of compression of the brain. The surgeon found no effusion under the membranes of the brain. He plunged his knife into the cerebral substance, and had the good fortune to penetrate the collection of pus; but the patient sunk under suppuration in the ventricles of the brain.

Dr Mendoza relates a case of vertical dislocation of the patella of the left knee. The internal border of the patella was situated in the depression of the femur, the external border was made anterior, the anterior surface made internal, and external made posterior (?) Continued and powerful efforts were made for the purpose of reducing the patella, and carrying backwards and outwards the border which had become anterior, but in vain: the patient was put under chloroform, and passing rapidly from extension to powerful flexion of the leg on the thigh, the patella replaced itself spontaneously with a snap. The condyle of the femur had acted on the patella in the same way as the instrument invented by Guyatt and Wolff for the purpose of disengaging it.—*L'Union Médicale*, December 7, 1848.

[Mr Vincent of Bartholomews, in his late work on Surgical Practice, mentions some cases of the peculiar dislocation of the patella, mentioned above,

in which, after trying various other means unsuccessfully, he succeeded, with the greatest ease, by bending the leg, and rotating it slightly in the axis of the tibia. He refers the effect of this method of reduction to a peculiar law of muscular action. He says, "This law is, perhaps, a corollary following that principle which requires the necessity of association in the actions of muscles. What I allude to is, the overpowering strength which a muscle is brought to exert when its usual direction of action about a centre is forcibly changed. I think the best exemplification of this is, in that case of rare occurrence, the dislocation of the patella on its edge. When the patella is displaced in this way, it sets into action of the most violent kind those muscles which are the extensors of the leg. Their force is the effect, first, of that irritation which all muscles get when they are thrown out of their ordinary line of action, particularly when they are disturbed in moving round their ordinary axis or centre of motion; but still further, because, when these muscles are called upon, they act most powerfully, or, in other words, they are in the strongest action when the limb is to be straightened, as they are then to balance and support the whole weight of the body, by making a firm pillar of the extremity. Thus, in this condition, these muscles act with a power that defies all the force that human aid can call into its service. I have seen the utmost exertion quite feeble in changing, in the slightest degree, the state the bone was in. Yet we know that, in instances where one individual puts forth his whole power in muscular action, he cannot resist the strength of two or more to overcome this power, as is often seen in trials of a clenched fist, &c. The power of many men is not equal to the force of muscles in dislocations. But, nevertheless, the purpose is readily effected if we avail ourselves of the fact, that these muscles only act so powerfully when in this position, which is that they have when they usually exert their greatest efforts, that is, in the state of extension of the limb. So we have only to flex the leg a little, and all this powerful opposition to restoring the patella ceases upon using the slightest rotatory motion, and it readily falls into its place. This law of muscular action explains the great difference we find in the opposition offered to the manipulations we adopt in various dislocations."]

85.—*New Method of treating Gangrena Senilis.*—M. DAUVERGNE (de Monosque) mentions a case in which, after bleeding, giving nitrate of potass in ten grain doses, and applying cold lotions to the affected limb, he observed the progress of the gangrene arrested, the sloughs separated, and the patient was cured. His object in employing this treatment, was in the first place to render the blood more liquid, and in the second place, to give tone to the capillaries.—*L'Union Médicale*, October 7, 1848.

86.—*Venesection in Cases of Traumatic Lesions.* By M. JOBERT.—In severe burns, in gunshot wounds, and in deep and extensive contusions, with or without fracture, and whether cerebral symptoms be present or not, M. Jobert constantly practises full bleedings from the arm, during the first days after the patient's reception into the hospital, with marked advantage. These bleedings, especially in cases of extensive burns, have the beneficial effect of preventing or combating visceral inflammations, and in every case relieve the pain in the injured part.—*Annales de Thérapeutique Medico-Chirurgicale*, September and October 1848, p. 246.

[The editor of the journal from which we quote, speaks in high terms of this plan of treatment; but there are no statistics given of the results of the cases so treated; and we must say, that from all we have seen of such injuries, the practice appears to us, to say the least, a very questionable one.]

87.—*Paracentesis Abdominis — Death from Injury of the Spleen.*—A child, aged twelve years, was suffering for eighteen months from obstinate intermittent fever. The spleen was considerably enlarged, and abundant effusion of serum had taken place in the peritoneum. Paracentesis was determined upon, and the trocar was introduced midway between the umbilicus and the left anterior superior spine of the ilium. The spleen was wounded by the instrument, and about one ounce and a half of florid blood escaped from the canula. The result was peritonitis and death.—*Révue Méd. Chir.; Med. Times.*

88.—*Case of Tetanus cured by Etherization.* By M. CAIGNIET.—An infant, fourteen days old, presented the following symptoms of the disease; the jaws

fixed, and visible contraction of the muscles of the face; the eyelids open and the eye immoveable; the pupil a little dilated; and the lips covered with foam. The head was drawn forcibly backwards; the upper extremities were stiff, and the fingers bent; the muscles of the chest and abdomen participated in this convulsive movement, and the inferior extremities were so rigid as to permit of the infant being held by them in a horizontal position. The respiration was hurried, and the pulse small and frequent. From these symptoms M. C. considered the case to be one of tetanus, which, in the absence of any external injury, he attributed to the influence of cold and moisture. He had recourse to etherization, and insensibility having been produced, the state of rigidity disappeared, the respiration became easier, and the pulse fell twenty-four beats in the minute. New fits came on, and were combated by the same means. In twelve days the disease had altogether disappeared, but had left the child in a state of great debility. —*Bulletin de L'Académie Royale de Médecine de Belgique*, 1848.

89.—*New Mode of Removing Indurated Lymphatic Glands.* By M. Diday.—In certain cases of induration of lymphatic glands, accompanied by ulceration of the surrounding parts, and by external openings, especially of the inguinal glands, subsequent to venereal affections; when the disease proves obstinate, M. Diday recommends the excision of the affected glands. To effect their removal he makes use of an instrument in shape resembling a very small spoon, but having a sharp margin. By means of it the gland is scooped out without difficulty. A pledget of lint is kept in the cavity for a short time after the operation; but if the gland have been entirely removed there is seldom any considerable hemorrhage.—*Journ. de Méd. de Lyon, in Gazette des Hôpitaux*, 31st October.

90.— *On Arterial Compression in Inflammation of the Extremities.* By Dr Francois Henroz.—Dr Henroz suggests the employment of arterial compression in the treatment of the different inflammatory affections, both of the superior and inferior extremities.

He himself has only made use of it in two cases of paronychia, in which it gave complete and instantaneous relief from pain, and in a short time caused resolution of the inflammation. In severe cases, the pressure ought to be applied either upon the humeral artery, or upon both the arteries of the fore-arm; but in general, pressure upon the radial, when the thumb, or index, or middle finger is affected; or of the cubital, when the ring or little finger is the seat of the disease, will be found sufficient. The apparatus which he employs is exceedingly simple; it consists merely of two small wooden splints, somewhat longer than the diameter of the limb at the part to be compressed. A small compress having been placed over the artery, one of the splints is applied upon it, and the other opposite to it, and their ends are tied together beyond the limb on either side. The amount of pressure can thus be easily regulated.

In one of the cases in which he employed this treatment, the disease had been going on for eight days before the patient was seen by him. All the fingers were affected, and the whole of the hand and lower part of the fore-arm were very much inflamed, but no fluctuation could be detected. The axillary glands had become swollen and painful, and there was general feverish reaction. Pressure with the hand over the humeral artery immediately caused a cessation of the pain. The apparatus was applied so as to compress both the arteries of the fore-arm above the wrist, and no bad effects were experienced, notwithstanding the inflamed state of the parts.

The splints were directed to be removed for a short time every three or four hours. No pain was felt as long as the pressure was continued, but when it was removed the pain returned. Next morning the constitutional disturbance had quite subsided, the swelling and heat of the hand were much diminished: and after the pressure had been continued about thirty hours, all the symptoms of inflammation had disappeared.—*Bulletin de l'Académie Royale de Médecine de Belgique.*—1847-1848.

[It seems doubtful how far the relief from pain obtained in those cases was the result of compression of the arteries, and not rather of pressure upon the nerves, as we know that the phenomenon of pain generally precedes the increased flow of blood to an inflamed part. It seems also very doubtful whether compression may not sometimes produce such effects as shall render its use improper. Nevertheless, we have been induced to give this abstract of M. Henroz's memoir, from the belief that the subject merits further investigation.]

91.—*Death from a Pistol Shot.*—At the meeting of the Westminster Medical Society, November 4th, Mr Wade related the

case of a man who placed a pistol, loaded only with powder, into his mouth, and discharged it. The cheeks were literally blown into ribbons, and the lower jaw was fractured. Proper applications were made to the parts. He appeared to be doing well for a day or two, but died suddenly, as Mr Wade believes, from spasm of the glottis, consequent upon removal to an hospital.—*Lancet*, 18*th Nov.* 1848.

92.—*Curious Case of Lipoma under the Deltoid.*—On the 20th January last, a woman about fifty-eight years of age, thin and short in stature, came to La Charité to be freed from a tumour under which she had been labouring for nearly seven years. It was on the anterior and external part of the shoulder, appearing without any known cause. It had progressively attained a considerable size, in form two-lobed, of a moderate consistence, no visible fluctuation, having an obscure and sluggish motion, no difference nor change in colour of the skin. It extended almost over the whole space occupied by the deltoid, which was not destroyed, but appeared to cover the tumour itself; the arm could be moved about with ease, and the general health was good; in fact, there was nothing but a tumour, troublesome from its size. This case was given as a subject of trial to the surgeons at the time standing as candidates for the chair vacant by the death of the younger Bérard. Some said it was in the periosteum, and of a fibro-cartilaginous nature; others gave opinions not better founded. M. Bégue alone declared it to be a lipoma, an analogous case having once before come under his notice. MM. Nélaton and Gerdy were uncertain; the latter introduced an exploring trocar into the tumour, but nothing came out; and the patient, desiring to be freed from it, M. Gerdy performed the operation as follows:—An incision, three or four inches long, extending downwards from the clavicle in the direction of the anterior border of the deltoid, laid bare a very thin layer of muscular fibres covering the tumour; nearly an inch above the inferior attachment of the deltoid, another incision, perpendicular to the first, was made, dividing the skin and the muscle itself. This incision was so made as not to include the whole of the humeral attachment of the deltoid; nearly half of this remained uninjured posteriorly. That was sufficient to enable M. Gerdy, in raising the triangular flap just made, to circumscribe and cut out the tumour without difficulty. An incision was afterwards made at the back part of the shoulder, to enable the flow of the liquid, which otherwise would have accumulated in the *cul-de-sac* formed by the posterior lobe of the tumour. The patient was thus perfectly cured of an affection which examination proved was nothing else than a lipoma, only of firmer consistence than is usually met with in practice.—*Journal de Médicine et Chirurgie.* July 1848.

93.—*Experiments regarding Gunshot Wounds of the Head.* By M. HUGUIER.—At the Société de Chirurgie of Paris, 18th October 1848, M. Huguier showed the skull of a subject at which he had fired a musket loaded with a single ball at the distance of seventeen paces; the shot had struck the temporal region near the base of the petrous portion. The lesion produced was remarkable, all the bones of the vault and base of the cranium had been broken up, the brain had escaped, and the soft parts had been torn into flaps. One not knowing its history, would call it an injury produced by a fall from a great height. After various conjectural opinions to explain the manner these injuries had taken place, M. Huguier stated that he thought that the multiplicity of injuries were owing, above all, to the fact that the ball had struck the point of junction of the vault with the base of the cranium, and had communicated to both simultaneously a violent shock.

At the Association Générale de Médecine de Paris, 6th November 1848, M. Deguise, jun., in reference to the experiment of M. Huguier stated above, said, that M. Huguier had shown a skull so curiously mutilated, that his colleagues had been undecided as to the cause producing such injuries. The fact was so singular, and so important in a medico-legal point of view, that several members, amongst whom was M. Deguise, had determined to repeat the experiment. He stated that he had obtained a similar result.—*Gazette des Hôpitaux.* Oct. and Nov. 1848.

[The explanation given by M. Huguier as to the cause of these remarkable lesions, appears to us to be a just one. Meanwhile a summary stop has been put to the experiments in question by the Minister of the Interior suspending

M. Deguise and his assistant from their functions in the hospital for the space of one year.

Perhaps the minister feared lest such heroic experiments might foster a military spirit in the profession, and considered that, in the present state of Paris, a corps of *Tirailleurs Médicals* was a thing to be discouraged.]

94.—*Observations on a Case of Popliteal Aneurism treated by Galvanic Puncture.*—M. Debout presented a specimen of a popliteal aneurism taken from a man who had been treated by galvanic puncture. He had sent the patient, who was a forest keeper, aged sixty, into the Hôpital de la Charité. M. Velpeau employed galvanic puncture, but after leaving the needles in for eight days, and galvanizing twice during that period, a violent inflammation supervened, followed by hemorrhage, for which ligature of the femoral artery was performed; gangrene of the limb ensued; amputation of the thigh was had recourse to, but with a fatal result; in the preparation their was seen a sanguineous clot filling up the aneurismal sac, which was much more inflamed on the external than on the internal surface.—*At the Société de Chirurgie de Paris.* Nov. 22, 1848; *Gazette des Hôpitaux*, Dec. 5, 1848.

[A case of this kind, though interesting in many respects, does not much elucidate the action of galvanic puncture on the aneurism; for it is a question whether the coagulation of the blood within the sac was the result of the galvanism or of the subsequent operation of ligature of the femoral artery. We think the history of the case rather indicates that the coagulation was the result of the ligature of the artery, judging from the hemorrhage which necessitated that operation.]

95.—*On the Employment of Ligatures formed of Animal Substances.* By Mr Wragg.—The substance which Mr Wragg prefers is the fibrous tissue of the deer, dried. then twisted so as to form a small round thread, smooth and regular on the surface, non-elastic, sufficiently strong to resist the traction made on it by the surgeon in tying the knot. The mode of preparing these ligatures appears to the author to be a matter of great importance, and one capable of insuring or compromising the success of the operation: These tendinous slips ought to be dried slowly, and not used until all the moisture has disappeared; the author prefers those which have been dried for some years. One objection that might be raised against these ligatures of animal substances is, that they do not determine the degree of inflammation necessary for the obliteration of the artery; but this fear must yield to the testimony of all the surgeons who have found in this practice a sufficient hæmostatic remedy. This is not the reason why it has been rejected by some medical men, but rather because they doubted whether the substance of these ligatures could be effectually absorbed, and disappear amongst the tissues; the experience of Mr Wragg fully replies to these apprehensions. During the ten years that he has employed these ligatures, he has never used any others; and during this period he has tied arteries in the fingers, hand, forearm, arm, leg, and thigh, and has never seen any symptom to show that the absorption of the knot had not taken place. Some cases, chosen from a large number, will confirm the truth of these propositions: In 1836, Mr Wragg amputated the leg of a woman above sixty years of age for a malignant ulcer; the ligatures made of the fibrous tissue of the deer were cut close to the knot, and the wound brought together; the stump was healed at the end of three weeks. No part of the ligatures could be seen; no abscess, no ulceration, indicative of the threads having acted on the tissues as foreign bodies.

In the case of a young man, one of the cutaneous branches of the posterior tibial artery was cut by a blow from a hatchet. Mr Wragg tied it with one of these ligatures, which he cut close to the knot; he then brought the wound together by four points of the interrupted suture made of a thread of the same substance. Nothing further was seen of the knot of the ligature; as to the threads used for the suture, they became softened, and, from the time suppuration commenced, had a macerated appearance, their volume diminished by degrees, so that at the end of a certain time he saw, by the effect of a gradual eating away, a segment of the circumference of the thread disappear, and at last the knot gave way just as if it had been divided by scissors.

In 1839, Mr Wragg performed an amputation at the wrist, in consequence of injuries received by a railway accident. He tied the arteries with ligatures made from the fibrous tissue of the deer. On the 12th day, suppuration being established, one of the knots became loose, and came away by the wound, but so dimi-

nished in size, and so softened, that it was with difficulty recognized; and even Mr Wragg himself declares, that he still is in doubt whether it was not a portion of sloughing tendon.

The preceding facts indubitably prove the reality of the absorption of the ligatures formed of animal substances. The following is not less interesting, as an example of the comparative effects of this kind of ligature, and those made of vegetable threads. After amputation at the lower part of the thigh, Mr Wragg tied the femoral artery and vein, the only vessels requiring ligature, with ligatures made from the fibrous tissue of the deer and cut them off close to the knot; the stump was dressed, and the wound brought together with six points of suture, two being ligatures made from fibrous tissue of the deer, the other four of hemp. At the first dressing, on the fourth day, all the wound was united except at two places, where a strong portion of fascia-lata had prevented it. On the sixth day the two ligatures made from the deer came away without the necessity of being cut, whilst the four of hemp had to be cut previously to being withdrawn. The small wounds made by the ligatures of hemp were more inflamed than those made by the animal, ligature.—*South. Amer. Jour. of Med. and Phar.*, as quoted in *Gaz. Méd. de Paris*, Nov. 18, 1848.

[The absorption of ligatures of animal substances has so often formed a subject of experiment, and has so generally been found to fail, whilst in some cases bad results have followed their use, that we think the profession is likely to be very cautious in reviving the practice. At the same time, the cases narrated suggest a mode of testing their effects on an extended scale without risk to the patient; we mean, employing them for sutures, as done by Mr Wragg, and carefully watching and comparing their effects with those of the ordinary thread.]

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

96.—*Renal Dropsy during Pregnancy.* By MM. DEVILLIERS and MIQUELE.—Almost all the cases which have occurred to the author were of the lymphatic associated with the nervous temperaments, very few of the sanguineous. In several cases the women had been in good or even robust health. The primiparous condition is a powerful predisponent. The author has not been able to trace the influence of damp, cold, or spirit-drinking, said to have so powerful an influence in inducing ordinary albuminuria. Most of his patients had suffered from mental disquietude. He does not agree with those who attribute any effect to the pressure of the uterus, which is only competent to the production of ordinary œdema.

Symptoms.—It is to be observed that albuminuria may occur *unaccompanied by any dropsy*, especially when it takes place not long before delivery. When present, the development of the dropsy is sometimes rapid and acute, but generally gradual. It is sometimes even limited to the lower extremities, but usually extends to the upper extremities and face, the precipitate of albumen being just as abundant in the one case as the other. The swelling may vary from mere puffiness to excessive distension, but, like the dropsy from organic causes, it is less liable to variation than simple œdema, and it very readily invades the splanchnic cavities. Whatever may have been the amount of infiltration, or the issue of the disease, the swelling usually disappears in from six to eight days after delivery. The accoucheur has rarely the opportunity of determining when the *albuminuria* first manifested itself. The period indeed seems to be variable, and by no means in relation to the amount of serous infiltration. Nor does the quantity existing in the urine bear any such relation, it being, however, generally found considerable at the approach of delivery, augmenting sensibly during labour, and even persisting awhile after confinement—gradually, however, save in cases of serious complications, diminishing until the tenth or twelfth day, when it disappears. If during pregnancy or after delivery any notable febrile disturbance of the circulation occurs, the albumen becomes proportionably augmented; and the author furnishes a curious case, in which the amount fluctuated with the paroxysms of intermittent febrile action. The same increase is observed during severe labour, at the commencement of puerperal fever or other dangerous diseases, and especially at the approach of death—and that in women who but the day before had exhibited a very small quantity. Other accidents operate critically, and give rise to the sudden disappearance of the albumen; an instance of

which is given, that occurred on the development of an abundant herpetic eruption. In scarcely any of the patients do distinct febrile paroxysms exist, and the various nervous symptoms, analogous to those of chlorosis, are often met with in pregnancy unaccompanied by albuminuria. In some cases, severe epigastric pain seemed a marked symptom.

Complications.—Examples are given of the complication of this affection with effusions into the various serous cavities; but the most important accompanying disease is that first pointed out by Lever, *Puerperal convulsion.* It is well known that some eclamptic women suffer little from anasarca, and others not at all; but it is an essential fact. that *in all cases albumen is found in their urine.* All women suffering from albuminuria do not, however, become the subjects of eclampsia; for of the twenty cases here related, only nine suffered from convulsions; and, according to the author's researches, neither the amount nor seat of the infiltration enables us to predict their occurrence, although the appearance of albumen in the urine may always give rise to fears of this. An important conclusion to be drawn from this relation of albuminuria and eclampsia, is that if the first is the source of the second, we must consider as only occasional causes of the convulsions, the distension of the uterus, the amount of uterine pain, and the various moral and physical sources of irritation regarded by various authors as primary ones. Other forms of convulsions, as *hysteria*, are not always attended with albuminuria.

Terminations. — Contrary to what is usually the case, the albuminuria of pregnancy sometimes terminates in a rapid and spontaneous cure, notwithstanding its apparent gravity. It may also pass into the chronic state; but the serious complications which attend it, and the accidents produced by it, are too often attended by death.

Prognosis.—M. Rayer observes that the albuminuria of pregnancy is comparable to that which is produced by a temporary hyperemia of the kidney, and is less dangerous and more curable than other forms of the disease. Yet cannot this be too absolutely received, for women sometimes die, when the lesions after death are found to be very slight. Nor is Lever's statement to be relied upon—that the albuminuria of pregnancy gives rise to more violent and frequent convulsions, and is more persistent, than when it appears only just at labour. There is, in fact, no relation between the date of albuminuria and the violence of its consequences. A pretty certain ground of prognosis is derivable from the diminution or increase of albumen, the persistence of this giving rise to a very unfavourable conclusion, which cannot be drawn from the mere amount of infiltration. In respect to the production of abortion, the cases of albuminuria may be divided into those occurring *without*, and those occurring *with complications.* Thus, of thirty-seven cases in the first category, in only five could abortion be attributed to the albuminuria, whereas in twelve cases of eclampsia premature labour occurred in six. The author states, as the result of his own and M. Dubois' experience, that the supposition entertained by some, that there is a connexion between the albuminuria of the mother and induration of the cellular tissue of the infant, is destitute of foundation.

Pathological Anatomy. — The author was struck with the numerous instances of disease of the liver occurring in these cases. In some of the cases examined, the kidney had undergone the changes observed in Bright's disease, but in others these were not observed, the organ being in a congested state, and almost always increased in size. While in ordinary albuminuria we estimate the amount and gravity of the renal changes by the amount of the albumen, and the extent of the dropsy, that is not the case in the present form. The only point in which the two diseases have a strict similitude is the altered composition of the blood. This disease, in fact, much more nearly resembles the albuminuria occurring after scarlatina, or that dependent upon temporary renal hyperemia, and seems limited to the period of pregnancy, which is its principal cause. This relation of cause and effect, however, is not local or mechanical, as stated by M. Rayer, but is due to a general modification of the economy, produced by an altered condition of the blood.

Treatment.—Our resources are limited by the obscurity of the indications, and the desire to avoid interfering with the progress of pregnancy. General bleeding may be sometimes resorted to, but strong purgatives seldom should, while diuretics and vapour-baths are useful. When the albuminuria is recognised, we should seek to modify certain of the conditions of the economy by ferruginous preparations. As to the induction of premature labour, with the view of preventing convulsions, the author is averse to it; for it is impossible to be certain that these will occur, and the necessary manœuvres may themselves give rise to complications that would prove dangerous to mother or child.

Threatened suffocation, from the extension of the swelling, would alone, in his opinion, justify it.—*Archives Générales*, tom. xvi. 145-62, 318-32; tom. xvii. 48-69, 287-317.

M. Miquele, after relating several cases, lays down the following rules in reference to the treatment of the albuminuria of pregnancy:—1, That the anasarca with albuminuria of pregnant women is not due to a mechanical obstacle, but to an affection of the kidney, which is shown by the early period at which it may occur; 2, diuretics and other stimuli are, to say the least, useless; 3, much trust is not to be placed in bleeding, which is to be used only as an auxiliary when signs of congestion exist; 4, the most powerful means we have of overcoming or preventing this disease is by an abstemious or vegetable regimen, while a too animalized diet, or any which much disturbs the digestive functions and irritates the urinary organs, produces or increases it; 5, when convulsions occur, opium, given in enemata, in spite of the existing congestion, is very useful; 6, large flying blisters, applied to the groins, are so likewise.—*Révue Médic.-Chirurgicale*, iii. 191-200; and *Brit. and For. Medico-Chir. Review*, No. V. 274.

97.— *Procidentia Vagina during Labour.* By DR TYLER.—Mrs ——, æt. thirty-five. Sixth pregnancy, with her last miscarried at the fourth month. Labour this time commenced on the evening of the 11th of July 1848, at 7 P.M. Soon after, a tumour making its appearance externally, accompanied with some bleeding, the friends applied to the Anglesey Hospital for advice. The gentleman who first visited her pronounced it a case of prolapsus uteri. Dr Tyler first saw her at 1 A.M. next morning, and on making an examination, felt a large pulpy tumour protruded between the labia, as large as the scrotum of a child, for which he at first mistook it; but on passing the finger around its base, he found the tip of the finger arrested at a short distance within the labia; then drawing the finger back over the most depending part of the tumour, he discovered an opening which, admitting the finger freely, led to the os uteri. The uterine orifice was pushed low into the pelvis; it was dilated to the size of a crown piece, and its margin felt thick. The child presented a head with the face towards the pubis. On ocular examination of the tumour, it appeared of a dark livid colour, its surface evidently formed of the congested mucous lining of the vagina. Dr T. reduced the vagina into its natural situation with the greatest ease, but a succeeding pain protruded it again as before. He then re-introduced it, and desired a pupil to keep up pressure on the sides of the vagina with the points of his fingers, so as to keep it *in situ* during each pain. This counter-pressure had the desired effect of preventing a recurrence of the accident; and on visiting the poor woman again, at six and a half A.M., the vagina was found withdrawn into the usual situation, and moistened internally with its natural mucous secretion. The os uteri had contracted to the size of a shilling, and its margin felt thin and rigid, so much so that Dr T. wished to bleed her, but she entreated of him not to do so, as she dreaded its effects.—*Record of Obstetric Medicine*, Dec. 1848.

98.— *Puerperal Convulsions.* By Dr MURPHY.— Dr Murphy lays down the following propositions on this subject:—

1st, Puerperal convulsions should not be confounded with epilepsy, nor with apoplexy. They agree with the epileptic attack in their physiological, but not in their pathological characters. Apoplexy is an effect of the paroxysms, which may or may not follow from them.

2d, The predisposing causes of puerperal convulsions are either an excess of blood (hyperemia), a deficiency of blood (anemia), or impure blood.

3d, The proximate causes of convulsions are chiefly eccentric causes, being the morbid irritation of the afferent nerves supplying the different vital organs.

4th, *Morbid irritation of the uterus* is the most common proximate cause of puerperal convulsions, the result either of hyperemia or anemia. Hence the division into sthenic or hyperemic convulsions, and asthenic or anemic convulsions. Under the latter head we include, not merely loss of blood, but poverty of blood, and impure blood—because the effect seems to be similar, only differing in degree.

5th, *Morbid irritation of other organs* also causes puerperal convulsions, because, during pregnancy, and at the time of labour, the nervous system is more excitable than at any other time: and hence any organ may easily be rendered morbidly irritable. Puerperal convulsions so caused are much more fatal than the former, because the nervous centre is exposed to a twofold source of irritation—the organ primarily affected, and the uterus that is secondarily excited.

6th, In the whole of these phenomena we must perceive a beautiful illustration of the reflex nervous function—the peri-

pheral nerves that supply the affected organ rapidly communicating their irritation to the spinal system, which, as an excito-motor centre, radiates the irritation over the whole of the voluntary muscles, and the muscles of respiration, in violent convulsive paroxysms. Even the involuntary muscles, as the uterus and heart, do not escape, but give every evidence of greatly increased muscular contractions.—*Med. Gaz.*, Jan. 26, 1849.

99.—*Mode of Plugging the Vagina.* By Dr Murphy.—The mode of plugging the vagina is very much governed by fancy; some use a single plug, others several separately introduced; some will employ silk handkerchiefs or sponges for the purpose, others are satisfied with common hemp. I have been in the habit of using two or three small plugs in preference to one large one, because it is necessary to remove the plug from time to time, in order to judge of the extent of the hæmorrhage, and sometimes also to relieve the urethra from pressure. If, therefore, a single plug be withdrawn, the coagula will be disturbed, and the hæmorrhage renewed; but if the outer pieces only are taken away, this will not be the case, and the extent of hæmorrhage may be judged by the degree to which these plugs are saturated: they can be replaced by others, so as more efficiently to favour coagulation. The material that I generally employ is hemp or tow; it is always easily obtained, and I think entangles the current of blood better than sponge. I have found sponges very soon become coated with a thin layer of coagulated blood, and scarcely arrest the discharge. This, however, is a mere question of personal experience; every practitioner has his favourite, and I may be allowed to indulge in this preference. When you have made the necessary vaginal examination, introduce a ball of tow loosely rolled up, and let it be applied directly to the os uteri. Let this be followed by two or three others until the vagina is filled, and support the whole of them by a napkin soaked in ice-water, and applied to the vulva.—*Extract from Lecture, Med. Gazette*, Dec. 15, 1848.

V.—PSYCHOLOGICAL MEDICINE.

100.—*On Monomania.* By M. Baillarger.—The author has devoted a clinical lecture at the Salpêtrière to the consideration of this subject. He defines monomania to be a partial insanity, resulting from an exciting passion; differing in this respect from melancholia, which is produced by a depressing passion or emotion. M. Baillarger accounts for the opinion of Foville and some other authors, as to the rarity of this disorder, by the fact, that many persons labouring under it may succeed in concealing their state from their friends and physician, until the mental derangement has become so great as to preclude the affected individuals being longer regarded as simple monomaniacs. In proof of the general correctness of this observation, he instances two cases:—The first, that of a soldier, who contended for more than twenty years against a constant and powerful desire to murder certain of his relations. Before this propensity became so irresistible, he was forced to acquaint his friends with the power it exercised over him, in order that proper restraint might prevent him from doing the mischief to which he was impelled. The second case is that of a lady, whose hallucination was of a more amiable and harmless character; consisting simply in an overweening concern about the possibility of her regarding her husband with the proper degree of conjugal devotion. This state of mind had existed for three years, to the great distress of the patient, but unattended by any further symptoms of insanity. Hallucinations of this nature are called by the author, and other French writers, "fixed ideas;" they are, for the most part, carefully concealed from notice by the subjects who are rendered so unhappy by their possession. Monomaniacs, therefore, according to the author's definition, are rarely found confined in asylums; they move unchallenged in society, and it is only when very particular attention is directed to the inquiry, that any thing like an adequate idea of the number of persons so affected can be obtained.

Causes of Monomania.—An extreme degree of mental sensibility or irritability is supposed by the author to act most frequently as the *predisposing* cause of monomania, accompanied in several, though by no means in all instances, by a limited degree of mental endowment. Certain events produce a more or less permanent impression on the minds of some individuals, which, on those of others, exercise a very slight or transitory influence;—

such individuals are precisely those in whom we may expect the "fixed ideas" of monomania to become developed. This peculiar impressibility of the mind is more common and better marked in women than in men; and in the former, more particularly, during the existence of certain physiological states proper to their sex. The *occasional* or *exciting* causes of monomania are various; among these, lively mental emotions, especially violent grief, occupy a prominent place. The author quotes several cases in illustration of this fact; of these, the following is one of the most interesting:— Augusta Strohen, when a young girl, witnessed the execution of a criminal at Dresden. The general interest felt in his fate, and the important part he played in the tragedy of the execution, made a deep and lasting impression on her mind; and the desire thus excited, of occupying a similarly conspicuous position in the regards of the public, became at last sufficiently strong to drive her for its gratification to the commission of murder. Irritation is also a common cause of monomaniacal insanity; and to this cause may be traced many of the instances on record of homicidal and suicidal epidemics. This fact illustrates the mischievous tendency of those newspaper paragraphs devoted to stories of murders and executions. A striking dream occasionally acts as the exciting cause of monomania; in this case the "fixed idea" corresponds with the most remarkable idea in the dream. A curious circumstance in the history of typhus fever, is the occasional determination of the accompanying delirium, after the febrile excitement has become somewhat mitigated, in one particular and exclusive direction. M. Louis has recorded some cases of monomania originating in this way; in which, however, the aberration was only temporary, having been corrected after convalescence was considerably advanced. Similar effects sometimes follow the delirium of the "cerebral fevers" of women recently delivered; and it is remarkable, that the insanity which remains after such attacks, which may be monomaniacal or more general in its character, is more common among women of the higher than of the lower classes,—obviously from the greater mental susceptibility encouraged by the habits and education of the former.—*Gaz. des Hôpitaux*, Sept. 1848.

101.—*On Apparitions or Spectral Illusions.* By Dr ROBERT PATERSON.—These the author defines as vivid deceptions of the different senses, especially that of sight, often assisted by external means, occurring with such a degree of distinctness as to give a temporary belief in their reality, during a state of nervous excitement, and while the circulation of the brain is in a more or less disordered condition. In other words, they are ideas or recollected images of the mind, referred to the respective organs of sense, and occurring with sufficient intensity to create astonishment, and often fear. All the senses are liable to be deceived in this way, and various substances would seem to have the power of producing these deceptions.

[The first portion of this paper Dr Paterson has devoted to a very interesting account of the conjuring up of apparitions, divine and human, in ancient times, with a statement of the means modern science has demonstrated to have been put in use for purposes of the kind. The consideration of these particulars our limited space here forbids; but we recommend to our readers a perusal of this part, as well as of the whole paper.]

Dr Paterson refers the origin of all spectral illusions to three heads, according as they arise:—First, from increased quantity of blood in the circulating vessels; or secondly, from a diminished quantity; and thirdly, from certain foreign matters circulating with it.

To the first head are to be referred the illusions of fevers, of delirium tremens, plague, of inflammatory affections of the brain and its membranes, and those probably of mania, of plethora, gout, hypochondriasis, and hysteria. To the second head are to be referred those which occur in weak excitable temperaments, after continued illness and low diet, after large blood-letting to approaching syncope, as well as some of those which take place towards the termination of phthisis, hæmoptysis, &c. To the third head may be referred the apparitions which sometimes arise from the absorption of alcohol, ether, chloroform, and substances of a like description by the circulating current, as well as the inhalation of certain gases, and, as would appear, from preparations of sulphur with oxygen and carbon; and lastly, various narcotic poisons, such as opium, belladonna, conium, hyosciamus, solanum, cannabis, and similar drugs.

Division of Spectral Phenomena. As apparitions are resolvable into ideas or images of the mind, dressed up and impressed on the bodily senses with a vividness which often creates astonishment and fear, so external means often deceive the imagination in like manner, and give rise to phenomena of a very similar kind.

They may therefore with propriety be divided, first, *into those which have their origin in the mind itself;* and secondly, *into those which are entirely referable to external circumstances.*

Under the first class, Dr Paterson has given an epitome of the published cases referable to it, followed by a relation of seven highly interesting original instances. Of the latter we select the following, the seventh case recorded, the particulars of which were communicated to the author by the affected individual:—"I was not a little surprised one forenoon, while busily musing on the probable pathology of my own and similar cases, on perceiving an extremely minute yet very distinct spectral illusion, which for lifelike reality could not, I then imagined, be surpassed. The bed-curtains were partially drawn, and the light from the windows at the time unusually excluded, conditions which probably rendered the spectral phenomena I then observed peculiarly attractive. From a somewhat obscure background, I first noticed a ray of light slowly to emerge, and, while advancing towards me, gradually to unfold itself as it were into a living, active, and altogether grotesque epitome of humanity, so extremely minute, and yet so complete in form, colour, and expression, that I was more agreeably astonished at the very distinctness of the novel and ludicrous illusion, more especially when it reached its complete development, which it seemed to do when it approached within an arm's length of me, when it suddenly disappeared, but only to make way for another and equally comic figure, which also seemed to spring forth on the unfolding of the light, that again appeared slowly advancing from the dark background already referred to. So long as my vision and attention were directed to this phantasmagoric scene, a long succession of these Liliputian comedians continued in like manner to appear, and to give the most amusing and apparently never-ending variety of character and action to the pantomime which the pigmies one by one enacted. For some time I continued to watch with intense interest the individual origin, growth, and dissolution of my tiny and short-lived visitors, and endeavoured, as one vanished, to anticipate the particular appearance which its successor would assume; but generally failed in the experiment, as each succeeding illusion presented, either in its figure, expression, or colour, something quite novel and characteristic. So soon as my particular attention was withdrawn from the imaginary camera obscura, the dark background to the exhibition for the time being, ceased; and it was not till the following day when, under the same circumstances, I again discovered more of my airy performers, with the strange antics of whom I again wiled away what might otherwise have been to me a tedious or lost hour. Their presence, when thus solicited, continued for several subsequent days, after which, however, I could no longer perceive the slightest trace of their existence, the obscure background from which their matrix (the evolving ray) used to emerge, having now also altogether dissipated. I rapidly thereafter regained my former health; and have since then, I am happy to add, remained a perfect stranger to headachs and spectral illusions." In regard to the second class, or apparitions, having their origin entirely in external circumstances, the author observes that, during twilight, external objects lose their distinctness of outline, and become dimmer to the sight, and are under these circumstances more easily passed over by an individual wrapped in contemplation. In darkness and solitude it becomes still more marked. The peculiar arrangement of light and shade, which, under certain circumstances, is produced by the sun's rays, and more especially by those of the setting sun—by the moonbeams—by the decaying embers of a flickering fire—or by the uncertain light of a dying night taper, have all had their share in producing phenomena of this class. Superstitious dread, or a certain degree of mental excitement, add materially to the effect of phenomena of this kind. A striking instance of this variety occurred to the author himself, which he thus relates,—"I was called hurriedly out of bed, on a summer night, to a patient who was said to have committed suicide. I reached the house in time to see her expire; she had divided the trachea and large vessels of the neck, the profuse hemorrhage from which had so alarmed her relations that they all fled from the house. I found her lying huddled up on a door-mat, on which she had fallen in passing from one room to the other—and on which she expired. She was a respectable, young, and good-looking woman, and her history was a most melancholy one. The details of her melancholy end were brought before my mind again and again for several weeks, in consequence of my being concerned in arranging matters with the friends. Many months afterwards I was called again professionally to the same house. It was evening, and the moon was shining brightly as I ascended the stairs; the

door of the house was opened, and to my astonishment, the first thing that my eyes encountered was the door-mat, with its dying burden as bright and distinct as when I first beheld it. I was much struck with the circumstance, and paused for a time to observe with what accuracy fancy, and the effects of the moonbeams had brought back a recurrence of the painful associations connected with my former visit. Upon reaching it, I discovered that it was merely a shawl or some clothes that had been accidentally dropped on the door-mat. It is impossible to describe with what accuracy of colour, outline, and form, this painful image was brought back; nor was it the result of my mind having recurred to the subject in approaching the house; at all events, of this I was not aware, and felt much struck when I suddenly beheld the form, as I had previously so painfully witnessed it, extended on the door-mat. Nor could I see it again as I descended the stair, although the same drapery was there, and the moonbeams fell as before. The spell in fact was broken. Imagination had no longer its full play; and, although I looked at it again and again, I could make nothing out of it but mat, drapery, and moonshine."

Thirdly.— Apparitions may have their origin in the observation of electrical phenomena or phosphorescent emanations. The faculty of seeing luminous appearances would seem to rest in individuals of a highly nervous temperament, and whose organs of sense become preternaturally acute during twilight and darkness. It must be electrical light of which such individuals become witnesses. We know that such phenomena are constantly going forward, and most people can distinguish it in the dark from stroking the backs of certain cats; and it is most probably to the same natural process that we are to refer the power which certain individuals, while labouring under various nervous diseases, possess of seeing lights from magnets and certain kinds of crystals. The author observes, that it yet remains to be explained why this power should be classed amongst the sources of apparitions. He admits his inability to adduce any examples of it, but thinks it highly probable such may occur, and be converted by such individuals into objects of superstitious fear.

Lastly.— Apparitions may have their origin in various stimulating, narcotic, and other substances introduced into the blood. —In mentioning the different substances which are liable to produce, or render the senses susceptible to the production of spectral forms, the author speaks of,— 1st, those of a stimulating kind; 2d, those of a narcotic and narcotic-acrid kind; and lastly, those arising from other substances, of which some of the compounds of sulphur and of carbon form examples. Of the substances belonging to the first class, he specifies alcohol, ether, chloroform, and the nitrous oxide gas; of those belonging to the second class, the author instances opium, tobacco, henbane, solanum, stramonium, belladonna, conium, cicuta, and cannabis Indica,—speaking more in detail of the stramonium, opium, and the Indian hemp, and of the compounds of sulphur and carbon.

In the cases of apparitions recorded, and in those detailed by Dr Paterson, the organ of sight alone was deceived in thirty-five instances; the sense of hearing alone in four; that of touch alone in none. But in three instances the senses of hearing and seeing were together deceived,—in one the sense of sight and touch combined; and in two the senses of hearing, seeing, and touch. Illusions of sight appear, therefore, most common, and the rarest is that of touch alone; of the two senses taste and smell, there is no instance on record of the illusions of either.

The author, in concluding, refers to the very curious manner in which illusions of one sense lead on to another. Thus, during an optical illusion, a very slight concurring noise seems to be turned by the individual into a sound corresponding with his other illusion, and is actually converted into an aural one. In the same way, a pain occurring during the course of an optical illusion is at once converted into a tactile one. The spectre which is seen, by a little accidental noise speaks; and by a corresponding accidental twinge of pain it grasps or wounds the individual. Instances of these compound forms of illusions are rare.—*Edin. Med. and Surg. Jour.* No. 176.

102.—*On the General Paralysis of the Insane.* By Dr JAMES M. WINN.— This paper is a critical treatise, chiefly devoted to a consideration of the opinions of M. Rodrigues, Calmeil, and Bayle, whose opportunities for observation on this subject have been very considerable. All writers are agreed that men are more subject to paralysis than women. It is rarely seen before twenty-five; increases in the frequency of its occurrence up to sixty, and then diminishes. M. Bayle has never met with it in infants. M. Rodrigues has seen three instances before the age of

fifteen. The sanguineous and robust appear to be most liable to this affection. Military men appear peculiarly liable to it. Four out of five cases in the practice of M. Calmeil occurred among revenue officers. Venereal excesses, intemperance, excessive intellectual labour, syphilis, abuse of mercury, deranged catamenia, &c. &c., all operate as predisponent agents. The exciting causes of the disease are very numerous; among these are, strong impressions deranging the impulses and affections—injuries of the head, &c. &c. As the disease is nearly in every instance fatal, it is of great consequence to detect it at its outset.

Hesitation of speech and impeded motion of the tongue are the first signs; the patient speaks with difficulty, and stops between each syllable. Some words he cannot articulate; he passes over some lightly, and lingers on others. Some patients repeat the same word several times. The tongue is protruded with a trembling motion, the mouth is not drawn to either side, but during speech there is observed about its corners a slight trembling. The muscles of the face are unaffected. According to Rodrigues, the arms are the next organs paralysed, according to Calmeil, the legs. The premonitory symptoms are sometimes intermittent, disappearing for hours or days, but only to return with fresh intensity. The second period in the progress of the disease, is marked by an increase in the severity of the symptoms; the mind occasionally becomes greatly disturbed, the patient delirous and furious on being contradicted. On this state epilepsy sometimes supervenes. Deglutition now becomes difficult, and the patient is apt to be suffocated by the food lodging opposite the larynx. The muscles of the jaw, neck, abdomen, alimentary canal, and the sphincters, successively become paralysed: the retina becomes partly insensible to light, and the sensibility of the auditory nerve is blunted. In the third period the patient is far advanced in dementia; hearing and smell are gone; speech is lost; deglutition almost gone. The legs are now unable to support the body. Respiration is short and difficult. Sensation is nearly absent. There may be constipation, but diarrhœa is most common. Emaciation rapidly ensues, and death closes the scene. M. Rodrigues thinks that the paralysis may precede the insanity, but the greater proportion of his cases appear to have been preceded by insanity. Ambitious or exalted monomania is the form of insanity most commonly associated with general paralysis. M. Rodrigues gives some interesting cases of partial and perfect recovery, quoted from various authors. Patients seldom die during the earlier progress of the disease, except from attacks of cerebral congestion. During the second stage, death is apt to occur from epileptiform attacks, and asphyxia. In the third period the patient generally sinks from weakness, cerebral congestion, disease of the lungs, and asphyxia. Apoplexy is a not unfrequent complication.

The description of the pathological appearances, as given by M. Rodrigues, is next analysed. The same vagueness which is generally observed in the description of the pathological appearances of insanity is here also present, and we have not been able to glean much information from this part of the paper.

The treatment of M. Rodrigues is hygienic and medicinal. In the first stage it is heroic, and the lancet is freely employed. The douche he considers hurtful, and the application of ice to the head equally objectionable.

In the second period, setons, moxæ, and issues, he considers useful. In the later stages of the disease he recommends external counter-irritation. Throughout the whole period of the disease most room for treatment is afforded by the complications which are apt to occur.—*Journal of Psychological Medicine.*

103.— *On Double Consciousness.* By Drs Skae and Browne.—Two instances of this diseased condition of the mind have lately been recorded. In Dr Skae's case, religious melancholia alternated with a sound state of the mind. From an early period in the history of the case, it was observed that the symptoms displayed an aggravation every alternate day. On each alternate day the patient will neither eat, sleep, nor walk, but continues incessantly turning the leaves of a Bible, complaining piteously of his misery. On the intermediate days he is comparatively speaking quite well, enters into the domestic duties of his family, eats heartily, walks out, transacts business, assures every one he is quite well, and appears to entertain no apprehension of a return of his complaints. What is chiefly interesting and remarkable in this case, is the sort of double existence which the individual appears to have. On those days on which he is affected with his malady, he appears to have no remembrance whatever of the previous or of any former day on which he was comparatively well, nor of any of the engagements of those days: he cannot tell whether he was out, or what he did, nor whom he saw, nor any transactions in

which he was occupied; neither does he anticipate any amendment on the succeeding day, but contemplates the future with unmitigated despondency; on the intermediate days, on the other hand, he asserts that he is quite well, denies that he has any complaints, and appears satisfied that he was as well the previous day as he then is. On that day he transacts business, &c. &c., and distinctly remembers the transactions of previous days on which he was well. He appears in short to have a double consciousness, a sort of twofold existence, one half of which he spends in the rational enjoyment of life, and discharges its duties; and the other in a state of hopeless hypochondriacism, amounting almost to complete mental aberration. Dr Browne's case consists of trances of two hours' duration, occurring repeatedly during each day, and yielding to a moral impression to the apprehension of being removed to the vicinity of a lunatic asylum, and to the suspicion of being regarded as of unsound mind.—*Report on Progress of Psychological Medicine, by Dr C. Lockhart Robertson, in Ranking's Abstract*, Vol. vii.

VI.—MATERIA MEDICA AND THERAPEUTICS.

104.—*Action of Tartar Emetic.* By M. BONAMY.—M. Bonamy examines, first, the action of tartar emetic on the digestive tube. He arranges the lesions of the gastro-intestinal mucous membrane under five groups—viz., injection, with or without exudation of blood; softening of the mucous membrane, with or without destruction of the villosities; ulcerations; pustules; and hypertrophy of the follicles. But even the mildest of these effects occur only in a small proportion of the cases in which the tartrate is exhibited medicinally, and, according to M. Bonamy, are never occasioned except by larger doses than are necessary to obtain its therapeutic action.

Thus, of thirty-three cases, in which he author noted exactly the state of the tongue and digestive tube before and after the medication, signs of gastro-intestinal irritation were presented in two, and in one only of these were they serious.

[The doses exhibited are not mentioned.]

On the remote or general action of tartar emetic M. Bonamy has made some careful observations; and, although he has not deduced any new conclusions, his researches are important on account of the greater precision they give to our existing knowledge.

From a table, based on twenty-five observations, in which the pulse was examined before and after the use of the drug, we find that, in twenty-three cases, the diminution in the number of pulsations observed on the day succeeding the first administration, was 15, 30, 10, 24, 40, 3, 20, 8, 10, 5, 24, 23, 18, 13, 23, 12, 10, 15, 10. In the other two cases there was no change in the frequency of the pulse. On the second and third days the slowness of the pulse was generally more marked.

Great diversity of opinion prevails in relation to the diaphoretic action of tartar emetic. Of fifty-five observations, M. Bonamy found the cutaneous secretion augmented in four cases only. He considers diaphoresis, therefore, an accidental effect of tartar emetic, probably occasioned by the sickness and vomiting, and not by the remote action of the drug. He does not show, however, that vomiting was present in the four cases alluded to.

M. Bonamy regards the marked sedation of the nervous powers, which ensues from the use of tartar emetic, as an indirect effect, consequent on the weakening of the circulation. We have always regarded the nervous depression as a direct effect, and for the following reasons:—It frequently bears no relation in degree to the state of the pulse; and secondly, it is occasionally present when the circulation is comparatively little affected.

The author's observations on the therapeutic properties of tartar emetic need not detain us. They confirm the almost universal opinion of its value in pneumonia.

In acute rheumatism he found its beneficial action much less constant and less marked than in pneumonia. There is nothing new on its use in other diseases.

Is the establishment of tolerance necessary to the efficient therapeutic action of tartar emetic? M. Bonamy replies to this question in the negative, and maintains that, in many cases where he could not obtain tolerance, the efficiency of the drug was not the less marked. He thinks that, as an antiphlogistic, it is most usefully exhibited in frequent small doses, not exceeding the fraction of a grain.—*Etudes sur les Effets Physiologiques et Therapeutiques du Tartre Stibié*, Paris, 1848.

105.—*Iodide of Potassium in the Diseases arising from Mercury and Lead.* By M. Melsens.—M. Melsens supposes that in chronic poisoning with the mercurial and lead salts these bodies form insoluble compounds with the albumen, fibrine, &c., of the economy, and are thus retained in the system. According to him, the iodide of potassium dissolves these combinations, and the poisonous metals are thrown off by the kidneys and other secretory organs. This solution is evidenced by the fact of mercury or lead appearing in the urine of a patient suffering from lead or mercurial disease, to whom the iodide of potassium has been administered, although they had not been detected previously. Again, if a large quantity of the iodide be at once exhibited to a patient seriously affected, and whose organs probably contain a considerable amount of the noxious metal, symptoms of acute poisoning may arise from the action on the economy of the now dissolved poison. Thus in a dog, to whom, for several days, an insoluble preparation of lead had been exhibited, and who presented only slight symptoms of chronic poisoning, death resulted from a large dose of the iodide. A similar dose of the iodide was given to a healthy dog, without occasioning much derangement. M. Melsens has administered the iodide to a number of patients suffering from chronic lead and mercurial poisoning, with the effect of completely removing the painful symptoms.—*Proceedings of the Academy of Sciences, Paris, Gaz. des Hôp.*, February 1849.

106.—*Adulterations and Tests of Chloroform.* By M. Dorvault.—[We have had occasion repeatedly to direct attention to this subject—(see *Retrospect* for 1848, pp. 19, 49, 125, and 221). The great importance of having so powerful an agent in a state of purity has induced us, at the risk of a little repetition, to lay the following before our readers.]

Pure chloroform is 1. Perfectly transparent and colourless. 2. Entirely volatile. 3. It has a density of 1·49 at the temperature of 15° Cent. 4. It has a peculiar odour resembling that of the rennet apple, and a sweet ethereal taste. 5. It is soluble in all proportions in alcohol and ether. 6. It falls to the bottom of a mixture of equal parts of water and sulphuric acid. 7. It neither reddens nor decolorizes litmus paper. 8. It does not become opaline in traversing water. 9. It gives no precipitate with nitrate of silver. 10. It does not coagulate white of egg. 11. It does not take fire by the application of a lighted taper. 12. When rubbed on the integuments it reddens, but does not vesicate the skin. The foreign substances met with in chloroform are alcohol, chlorine, hydrochloric acid, hypochlorous acid, hydrochloric ether, compounds of methyle, aldehyde, and water. One or more of these may be present from adulteration, careless preparation, or spontaneous alteration. The first three account for the acidity of certain specimens of chloroform, and probably occasion in part the serious accidents which sometimes result from the employment of this anæsthetic.—*L'Union Méd.*, Jan. 11, 1849.

107.—*Action of Nitrate of Potassa on the Kidneys.* By M. Cardon.—A man swallowed, by mistake, three ounces of the nitrate of potassa. Violent intestinal irritation, with copious diuresis, was the consequence. The first quickly subsided, and was followed by a constant desire for food and drink, with tendency to emaciation. He continued to pass from five to six pounds of water every night. The urine was found by repeated examinations to contain sugar of resin. These symptoms gradually disappeared.—*Gaz. des Hôp.*, Jan. 18, 1849.

108.—*Indian Hemp in Neuralgia.* By Dr Rahbaum.—Having already spoken of the use of Indiam hemp in neuralgia—(see *Retrospect* for 1848, p. 184)—we are only induced again to allude to the subject on account of the extensive opportunities of confirming the utility of the medicine in this disease, which Dr Rahbaum has enjoyed in Rathenow, where, from the almost constant prevalence during the winter months of east winds, neuralgia of the head and face is a very common disease.

Dr R. has employed many remedies, but the hemp has exceeded all in efficacy. He prescribes it internally in the form of tincture. As the mode of preparing the tincture is not given by the author, it is useless to mention the number of drops which he administers. It is sufficient to observe, that he pushes the exhibition of the drug until its physiological action is sensibly manifested.—*Pr. Ver. Zeitung*, 17, 1848.

109.—*On Cod Liver Oil in Phthisis.* By Dr C. J. B. Williams.—Dr Williams has retained notes of 234 cases of phthisis in which he has given cod liver oil. In nine cases the oil disagreed, and was discontinued; in 19, although taken, it appeared to do no good; whilst in 206, out of 234, its use was followed by marked improvement, varying in degree from temporary retardation of the progress of the disease,

and a mitigation of distressing symptoms to a more or less complete restoration to apparent health.

The most numerous examples of decided and lasting improvement occurred in patients in the second stage of the disease. Even in a few days the cough was mitigated, the expectoration diminished in quantity and opacity, the night sweats ceased, the pulse became slower and of better volume, and the appetite, flesh, and strength, were gradually improved. There was generally a diminution and gradual cessation of the crepitus ; the breath-sound becoming drier and clearer ; but the dulness and tubular character of the breath and voice sounds seldom exhibited any marked decrease till after several weeks' use of the oil, in conjunction with counter-irritation. In several cases in which the disease has existed long, the restoration has never been perfect ; even when all the common symptoms of disease have entirely disappeared, there have remained perceptible inequalities in the breath and stroke sounds, generally with prolonged expiratory sound, which is more or less tubular towards the root of the lung. " These signs," says Dr Williams, " I have learnt, by the experience of many years, not to consider as exceptional against recovery, for they appear to be dependent on the puckering of the texture, often with pleural adhesions and old deposits in the bronchial glands, so frequently found after death at the summits and near the roots of the lungs of persons who have not for many years exhibited symptoms of any pectoral disease."

In the first stage of the disease, the results seem equally satisfactory. The good effects of the oil is commonly manifested in the abatement of cough and feverish excitement, and in the improvement of flesh and strength. The physical signs of improvement are the same as those which take place tardily in the second stage, after the removal of the hard ronchi ; and Dr Williams believes that the treatment by the oil, combined with counter-irritation, seems to bring back the lungs from the stage of incipient softening to that of simple deposit, which is tardier in its changes of increase or diminution, and may remain long stationary without any obvious alteration.

In the third stage, the effects of the oil are often very marvellous. The whole number of cases with one or more cavities, as indicated by physical signs, which under Dr Williams' hands manifestly improved, amounts to sixty-two. In thirty-four of these there was continued improvement up to the last reports. Eleven cases, which exhibited decided improvement for a time, have since again declined or terminated in death. Of the remaining seventeen, he has had no recent report, and does not know whether the amelioration has been permanent or not.—*London Journal of Medicine*, vol. i. p. 1.

110.—*Nux Vomica in Obstinate Vomiting of Pregnancy.* By Dr W. Hoffman. *On the External Application of Belladonna in the same Disease.* By Dr F. Loffler —In the first of the papers cited, the author recommends the exhibition of small doses of the tincture of nux vomica immediately after each attack of vomiting. A case of several months' duration is narrated, where every conceivable means was tried unsuccessfully. Decided improvement was experienced a few hours from the time the nux vomica was begun, and next day the vomiting had entirely ceased. Rademacher speaks in strong terms of the value of this treatment.—(Erfahrungsheill. 2 Ausg., pp. 180 and 412). In the second paper, by Dr L., the external application of a watery solution of the extract of belladonna is recommended.—*Bernh. u. L.'s Zeitschr.* 1. 4., 1848.

[This is indeed a very efficacious mode of treating obstinate vomiting from whatever cause it may arise. Though it occasionally fails to give relief, yet it frequently succeeds when other means have been unsuccessful. It was first proposed by Bretonneau. We had several opportunities of witnessing its utility in the wards of M. Trousseau, Hôpital Necker, Paris.]

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MONTHLY RETROSPECT

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APRIL, 1849.

CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

111.—*On the Structure of the Synovial Membrane Covering the Surface of Adult Articular Cartilage.* By Joseph Toynbee, Esq.—The author, after alluding to the opinions entertained by various authors as to the vascularity or non-vascularity of articular cartilage, refers to a paper, published by him in the Philosophical Transactions for 1841, in which he endeavoured to prove that articular cartilage should be classed among those animal tissues which are nourished, grow, and are liable to certain diseases, though deprived of the presence of blood-vessels. This has been confirmed by other observers.

The presence of the synovial membrane on the surface of articular cartilage, has been asserted by Bichat and Sir B. Brodie; and Henle states that the epithelium is continued in a thin layer over the whole surface. Todd and Bowman, on the contrary, say that the membrane cannot be traced on that portion of the surface which is most exposed to pressure; while they allow that it is continued over the whole surface in the fœtus. The presence

of the synovial membrane in the fœtus requires—says the author—only a superficial examination for its discovery. The interesting question then is, what becomes of this membrane in adult life. Is it absorbed, or is it worn away by attrition, or does it become incorporated and perfectly blended with the cartilage? The author considers that none of these views is correct; and states that there is no difficulty in demonstrating, fully and satisfactorily, the persistence of the synovial membrane over the whole articular surface, during every period of life, so long as the cartilage remains in a healthy condition.

If the synovial membrane, which surrounds the border of adult articular cartilage, be traced to the margin of the latter, it will be found to adhere very firmly; and on attempting to tear it from the surface of the cartilage it will often give way; in some parts, however, and that not unfrequently, a continuation of the membrane will separate from the surface of the cartilage, to the extent of several lines, in the form of a thin transparent layer. Another mode of showing the presence of this membrane, is to make a very thin flap of the articular cartilage, parallel with its surface, and then, by means of a broad pointed forceps, to draw it in the same direction as the section. As a general result of this process, a layer of transparent membrane, from two to six lines in length, will peel from the cartilage. Another mode of demonstrating this membrane, is to scratch the surface of a piece of cartilage under water, with a fine, firm needle, until shreds of a delicate membrane appear; beneath the edge of these the needle may be carefully insinuated, so as to separate the membrane in a continuous layer of some extent. The question now is, is the membrane so detached, the synovial membrane? Portions of it, from parts of a joint which are not exposed to much pressure, when examined with a power of 500 diameters, appear translucent and interspersed with fine filamentous lines, resembling in character areolar tissue. A portion taken from the central part of the cartilage, shows scarcely any of this areolar texture, and appears translucent with a nearly homogeneous structure. Adhering to its under surface, however, numerous fine points may be seen which appear to be particles of areolar tissue, that have been lacerated in the process of separating it from the cartilage. Sometimes a portion of membrane from the central part of the cartilage will show but few of these points; but on its inner surface very shallow depressions will be observed, which correspond in size and shape to the cartilage cells over which they have been placed, and against which they have been firmly compressed. At other times, a cartilage cell may be seen adherent to the under surface of the membrane. The free surface of this membrane is smooth, and presents a very fine polish, to which is owing the glistening appearance of cartilage, which it loses the instant it is denuded of this membrane. That the tissue just described is not a layer of cartilage, seems clear from its not containing any cartilage corpuscles; from its extreme tenuity, which is so great, that the membrane folds upon itself on being placed in a few drops of water; from the facility with which it is separated from the surface of the cartilage itself; and, lastly, from its being visibly continuous with the synovial membrane round the joint. The only fact that seems to militate against its being a synovial membrane, is its being destitute of epithelium. The absence of this, however, may be accounted for by the fact, of its not being a secreting membrane, and its being subject to great pressure; nor can the absence of it be deemed a sufficient reason for denying that the tissue described is synovial membrane, in the face of so many cogent reasons for identifying it with that membrane.

From these observations the author has been led to the conclusion, that all healthy articular cartilage is invested with synovial membrane, which membrane, however, differs from the condition in which it is ordinarily met with in being destitute of an epithelial covering.

In a postscript, the author refers to the fact of Dr Garrod having observed that gouty deposits in joints are covered by a fine membrane. On examining these specimens for himself, the author found this membrane the same as that which he has described in his paper.—*London Journal of Medicine*, March, 1849.

112.—*On the Origin of Sugar in the Animal Economy.* By Dr CL. BERNARD.—In a memoir on this subject the author arrives at the following results. (1.) It is now a recognised fact in animal chemistry, that during the digestion of saccharine or amylaceous matter, the blood contains sugar, and it has thence been concluded that the sugar is furnished by such food. Bernard finds that *whatever be the nature of the food, and even in animals that have fasted two days,* sugar is invariably present in the blood. Henrich is clearly incorrect to attribute the presence of sugar in the blood to the digestion of feculent matter.

(2.) Whence is the sugar derived in

fasting animals, and in those that have lived strictly on animal food, and where is it formed? On killing a dog, which seven hours previously had eaten a hearty meal of cooked meat and bones, he found that—

α. The alimentary matter contained in the stomach and small intestine had an acid reaction, and afforded no trace of sugar.

β. The fresh chyle taken from the thoracic duct yielded a milky alkaline serum in which there was no sugar.

γ. The serum, which separated on the coagulation of the blood from the portal vein, was opalescent and alkaline, and contained a large quantity of sugar.

δ. The blood taken from the right ventricle yielded on coagulation a milky alkaline serum, in which there was much sugar, although less than in the portal blood.

These results were confirmed by repeated experiments. How was it that the portal blood should contain so much sugar, while none existed in the small intestines? Considering that it must be derived from some neighbouring organ, he proceeded as follows:—He killed a dog, which some hours previously had fed on food devoid of sugar or starch; he opened the abdomen and placed ligatures (1.) on the venous branches, proceeding from the small intestine close to the intestine itself, (2.) on the splenic vein close to the spleen, (3.) on the veins proceeding from the pancreas, and (4.) on the trunk of the portal vein before it enters the liver. From the examination of the fluids between these ligatures, he found that—

1. There was no[1] sugar in the blood of the intestinal veins, any more than in the contents of the intestines.

2. There was no sugar in the blood of the splenic or pancreatic veins, or in the tissue of the spleen, pancreas, or mesenteric glands.

3. In the blood which freely regurgitates from the liver, after the opening of the trunk of the portal vein above the ligature, and in the tissue of the liver itself, *there was an enormous quantity of sugar.*

It was thus evident that the liver was the source of the sugar. But, it will be asked, how is it that sugar is found in the blood of the portal vein and its branches, for supposing it to be formed in the tissue of the liver, the current of blood should carry it forward by the hepatic veins towards the heart, and should not return into the portal vein. This objection, however, does not apply to the hepatic circulation, as it would not apply to the circulation in other parts, for the reflux of the blood into the portal vein is very easy; and may be readily explained in the following manner. In the ordinary physiological condition, the portal circulation is mainly effected by the pressure of the abdominal walls on the viscera. The natural compression being removed on opening the abdomen; and there being no valves in the portal system, the cause of the regurgitation is obvious. In a state of health it is obvious, from the preceding experiments, that there is no sugar in the blood entering the liver.

From this second class of experiments, it follows that sugar exists in large quantity in the liver, and that it is carried forward into the general circulation by the sub-hepatic veins and the *vena cava inferior* to the right side of the heart, where it is always to be found.

(3.) As a guarantee of the accuracy of the statement, that the liver is a source of sugar, the author describes the methods by which he chemically ascertained its presence, and which seem perfectly satisfactory. From the reactions mentioned, it appears to be chemically identical with glucose, although physiologically distinct from it.

(4.) Having ascertained that the sugar contained in the body is concentrated in the liver, we have further to determine whence it is derived. It may either result directly from a transformation of certain elements of the liver; or, it may be formed from certain elements of the food, and merely accumulated in the liver. As it is known that this organ has the power of localizing and retaining arsenic and certain other metals, so it is not altogether impossible that it might retain sugar, which would account for its being found there, even when no food yielding it had been taken for a considerable period. The following experiments are, however, strongly opposed to the latter view.

First Experiment.—A full grown dog was starved for eight days, and then freely and exclusively fed for eleven days on boiled sheepshead. On the nineteenth day he was killed while digestion was proceeding. The blood contained much sugar, and it was as abundant in the tissue of the liver, as in the experiments previously mentioned.

This experiment was repeated three times with similar results. It is hardly probable that sugar derived from food would have been retained for nineteen days.

[1] It is stated in the French that sugar *was found*, but from the sequence this is obviously a misprint.

Second Experiment.—An adult rabbit, after a full meal of herbs and carrots, had his pneumo-gastric nerves divided in the middle region of the neck. He was found dead, but still warm, seventeen hours after the operation. Neither the blood nor the liver contained a trace of sugar. A similar experiment with a corresponding result was performed on a dog.

As a further evidence that the sugar of the blood and liver is independent of the food, M. Bernard has found it in large quantity in fœtal calves. The following are his conclusions from the above facts:—

1. That in the physiological state, diabetic sugar is a constant ingredient of the blood found in the heart and of the liver of men and animals. The author observes, that in a future memoir, when speaking of the destruction of the sugar, he will show that it may disappear before reaching the superficial veins from which blood is sensibly drawn.

2. That this formation of sugar takes place in the liver, and that it is altogether independent of any farinaceous or saccharine food.

3. That this formation of sugar in the liver commences before birth, and consequently before the direct ingestion of food.

4. That this production of saccharine matter, which appears to be one of the functions of the liver, is dependent on the integrity of the pneumogastric veins.

The memoir concludes with a notice of his search after sugar in the liver of man and animals. There are many diseases, he observes, in which the sugar disappears, and is no longer to be found in the liver after death; diabetes is one of them.

With regard to the amount of sugar in the liver of different classes of animals, he finds that in birds (the fowl and the pigeon), and in the mammalia (as dog, rabbit, pig, ox, calf, and horse), the proportion is very considerable; in reptiles (the frog and lizard), it is very slight; while in fishes (at least in the ray and the eel), there is not a trace of sugar. This disappearance of the sugar in cold-blooded animals, is dependent, as he will show in a future memoir, on the less energy of their respiratory functions.—*Archiv. Gaz.*, November 1848.

II.—PRACTICE OF MEDICINE.

113.—*Description of an Epidemic of Scarlatina which prevailed at Kœnigsberg from the month of October* 1844 *to the end of January* 1845. By Dr MŒLLER.—The author commences his interesting narrative by alluding to the peculiarity of the season during which this epidemic continued. It was characterized by a deficiency of provisions, a bad quality of the food, a scarcity of labour, by a long and severe winter, succeeded by a summer at first extremely arid, but afterwards, on the contrary, very humid. All diseases speedily presented the adynamic type. The antiphlogistic treatment could but for a short time only be employed in the treatment of inflammatory affections. The vital powers were observed to decline in an incredibly short space of time. During the whole period from the winter of 1843 to 1845, a remarkable tendency to dropsy was observable. The epidemic began in October 1844. In November and December the cases became more frequent, but without any manifestation of a malignant character. In the two following months the cases increased in number and malignancy. Tendency to the typhoid condition was observable in the greatest number of cases—there was little of fever, little of cerebral congestions, an eruption imperfectly developed, sometimes even entirely absent, little sore throat; on the other hand, the swelling of the lymphatic glands of the neck was almost never absent. Danger was apprehended from inflammation of the organs of respiration, and from the consecutive dropsy, accompanied by albuminuria and degeneration of the kidneys. In the month of March the disease was on the decline, and a change in its character had taken place; in the great majority of cases the disease was preceded or accompanied by catarrhal affections, the eyes were injected as in measles, and the sore throat had become more severe. The eruption was in general more distinct, in some cases resembling that of measles. The consecutive dropsy had become more rare. In April and May the epidemic continued to decline. In June and the two following months, the number of cases again increased, but the disease presented a mild character. From the commencement of September to the end of the year, the epidemic continued steadily to decrease; the eruption was in general less marked; the scarlatina was frequently complicated with hooping-cough; the consecutive affections were frequent in their occurrence. Of 203 cases treated by the author forty-six died. The progress and decline of this epidemic the author divides into three periods. The

1st extending to April, the 2d to August, and the 3d to the end of the year ; and he then proceeds to offer some interesting observations on the different features presented by the symptoms at these periods.

In the 1st the eruption was slight, desquamation trivial. During the other periods it was brilliant ; in some fatal cases of a violet hue, and desquamation was considerable. In some cases a secondary eruption was observable, and some were followed by urticaria. The degree and duration of the fever varied. In the 1st period the pulse was very frequent, but small, the thirst and heat of surface moderate. The febrile symptoms for the most part continued up to the stage of desquamation. During the 2d period the fever was much more violent, but its duration was shorter ; the skin became moist, and perspirations were common during the progress of desquamation. In general the nervous system was much affected, although true cerebral congestions were rarely met with. Affections of the brain analogous to those occurring in the progress of typhus, of an adynamic type, presented themselves at all stages of the disease, and occurred in the young as well as in adults; all of the former who presented this form early in the disease, with the exception of two, died. Serious implication of the nervous system was chiefly observed during August and September.

Of the mucous surfaces, that of the pharynx was the one chiefly and most seriously affected. Next to it that of the nose and bronchial tubes. The affection of the mucous membrane of the bowels, along with diarrhœa, and that of the genito-urinary system were also noticed by the author.

The lymphatic glands of the neck and lower jaw were the most frequently affected. Suppuration and the formation of abscesses sometimes followed.

The implication of the parotid in inflammation was always a symptom of unfavourable import. After death in such cases, the gland was found encased in pale cellular tissue, impregnated with a coagulated matter more or less solid, having sometimes a consistence like that of lard, and with small cavities throughout it filled with yellow serum. The affection of the parotid ended in resolution, suppuration, or gangrene. In its treatment the author employed ointment of cantharides in the case of children, and blisters for adults. In two cases, on account of erosion of the arterial tunics, deligation of the common carotid was required. One of these cases died, the other recovered.

After inflammation of the lymphatic glands, the author directs his attention to the renal affection peculiar to scarlatina. This complication manifests itself in the second or third week of the disease, by augmentation of the fever, scanty secretion of urine, which is muddy and has a sediment, by vomiting, accompanied by pain in the epigastrium. There is little uneasiness in the region of the kidney. Dropsy first of the feet, then of the face, finally of the whole body follows. Effusion into the serous cavities, the thorax, more rarely the abdomen, supervenes. As the dropsical affection gains ground, the fever subsides, but there is always much thirst. The quantity of albumen in the urine is considerable; the urea, on the contrary, is diminished. The urine further contains a portion of the colouring matter of the blood, appearing as a red flocculent precipitate.

The author has found pneumonia frequently allied with pleurisy, to develope itself in a very insidious manner, without any assignable cause. It generally did so during the second or third week of the disease. A physical examination was always required for its detection. Dr Mœller refers to other diseases arising in the course of scarlatina, affections of the heart, &c., and concludes his very interesting paper by some observations on remedies, which, however, do not differ from those generally considered as established in the treatment of this disease.—*Gazette Médicale de Paris*, Decembre 2, 1848.

114.—*Observations on Scarlatina Albuminuria, and a short Notice on the Sequelæ proper to that Affection.* By Dr James Miller.—(Medico-Chirurgical Society of London.)—During the summer of 1848 the author observed 219 cases of scarlatina. In fifty-nine of these the disease was followed by renal anasarca ; and in other ten cases the latter affection occurred without any of the ordinary outward signs of scarlatina having preceded the attack. The œdema of the face is particularly noticed by Dr Miller as a characteristic symptom. The author divides the disease into four species, according to the intensity of the general symptoms, the absence or presence of dropsy, &c. He considers the degree of albuminuria to be, as a general rule, in inverse proportion to that of the dropsy. Dr Miller includes under the name of *scarlatina renum*, those cases in which, after direct exposure to the scarlatina miasm, dropsy followed, after rigors and slight premonitory fever, but unpreceded by eruption, sore throat, or the other symptoms of scarlatina—he also includes under the same title, those cases in

which the kidney exhibits an equally morbid action, preceded by slight affection of the skin.

The epidemic the author describes was one essentially of a renal character. The author concludes his very interesting paper by a reference to the cases of inflammation of serous membranes subsequent to scarlatina—these he properly views as falling under the denomination of sequelæ.—*Medical Gazette*, No. 1106.

[To the last number of the London Journal of Medicine, a valuable paper on this subject has been contributed by Dr S. Scott Alison. In our next number we shall present our readers with an analysis of Dr Alison's observations.]

115.—*On Intermittent Fever in Young Children.* By M. VALLEIX; *Médecin de L'Hôpital Sainte Marguerite, &c.*—On looking over these authors who have treated either in separate works or in notices in Medical journals of intermittent fevers in young children, and children still at the breast, we are astonished at the paucity of our knowledge on this subject. In a paper published in the Union Médicale of January 1848, entitled (*De La Fièvre Intermittente Chez Les Jeuns Enfans, &c.*), and which is of much higher value than all that had preceded it on the same subject, the author, Dr Ebrard of Bourg, comments on the silence of medical writers in respect to this question, stating that M. Bouchut is almost the only one who has furnished some remarks on this disease, based on the result of the cases which had fallen under his notice. In general, those French authors who have written on the disease in young children, have pursued their investigations at Paris, where they have rarely had the opportunity of seeing intermittent fever in children, and they have therefore very generally regarded the disease as a complication of hooping-cough.

The most surprising of all is, however, the negligence evinced in this respect by writers who have treated specially of intermittent fever, and who, from their acquaintance with the disease in the countries and districts where it is endemic, must necessarily have had ample opportunities of observing it in young children. But even here we find nothing beyond a few general considerations on the transmission of the fever from the mother or nurse to the child, and at most a few vague directions regarding the treatment of the disease in young children. Yet the more we reflect on the subject, the more clearly do we recognise the extreme importance of acquiring a correct knowledge of intermittent fever, especially when occurring in infants at the breast, for it appears highly probable that a number of young children sink rapidly under this disease, before its existence had been suspected by the physician.

I have not myself had an opportunity of observing intermittent fever in children at the breast. I subjoin a case which M. Louis has communicated to me, and that I purpose making the basis of some observations regarding the diagnosis and mode of treatment of the disease at that early age.

1. The subject of this case was a boy aged five months. He was a well grown child, rather pale than otherwise. The mother, who suckled him, had never had intermittent fever; his health had been good up to the time of the attack. In the beginning of the month of July, the child was taken to Havre, where he remained a week, during the whole of which time the weather was fine, and he was not exposed to any apparent cause of fever.

On the 11th of July, the evening before his removal from Havre, he had a well marked attack of fever, viz., alternation of shivering and heat, succeeded by perspiration: the following day there were no traces of fever; the child manifesting the symptoms of health, and all the functions being in a normal condition.

On the 13th the attack recurred while the child was on the journey to Paris. On the 14th M. Louis first saw him, and found the child lively and in apparent health. An occasional alteration in the tones of the voice, and a slight and occasional cough being the only symptoms observed. Auscultation and percussion indicated nothing abnormal. On the evening of the 15th the third attack occurred, and was marked by a fit of shivering which continued half an hour, and was succeeded by heat and moisture. Examination of the region of the spleen showed that the latter did not extend beyond the ribs. The mother was ordered to take three pills of sulphate of quinine of two and a half grains each, and on the following day to increase the dose to four pills.

On the 16th the attack recurred four hours in advance, and was less long and less violent than the preceding one. From the 16th to the 21st, five pills of two and a half grains of sulphate of quinine were given daily. The fever retained its tertian form, and the attacks were well marked, but while they recurred four to five hours in advance, they at the same time diminished in intensity. On the 21st there were two attacks separated by an interval of complete apyrexia. (The same treat-

ment continued.) From the 22d to the 27th the fever assumed the quotidian form—the attacks were well marked, and the intervals quite free from symptoms of fever. On the 22d the child was removed into the country to an elevated and healthy district, about twelve miles from Paris, and from that day the mother discontinued taking the sulphate of quinine. On the 27th M. Louis found the child free from fever, the skin cool, the flesh firm; but the face of a straw coloured hue, but no abnormal coloration in the sclerotic. The spleen extended beyond the ribs four finger breadths. The mother was ordered to resume the pills, and to rub the child with an ointment containing one-tenth of sulphate of quinine. Two and a half ounces of this ointment were to be used in the course of the day, that is to say, about fifteen grains of the salt.

The two next attacks were respectively much less violent than the preceding. (The ointment was continued morning and evening, and an injection ordered, containing one grain of sulphate of quinine, with half a drop of laudanum.)

The child retained *some* of the injection, and two days after its first administration the fever ceased entirely. The treatment was continued six days after the last attack.

This case appears to me to present many points of interest. In the first place we have intermittent fever in the child, without the disease being transmitted from the nursing mother; and here the question arises, if the fever were produced by a sojourn on the seashore, why should the mother escape and the child alone be attacked, at an age when it would appear, from the evidence of most writers on intermittent fever, that the disease is less common than in more advanced life? In fact, after considering the case, we are led to conclude, that intermittent fever may occur in children at the breast as well as in adults, without any appreciable cause. The symptoms presented in M. Louis's patient differ in no way from those ordinarily observed. The cold stage never lasted more than half an hour. The spleen did not extend beyond the ribs, until after many fits. M. Ebrard has found in all cases in which he was able to make a satisfactory examination that the spleen extended below the ribs after the fourth fit. But may not the augmentation of volume have been so inconsiderable at first as to prevent its detection below the false ribs? Percussion presents the only satisfactory means of deciding this point; and I do not believe that it would be attended by as great a difficulty in the case of young children as is generally supposed; for as the walls are very thin at this early age, the differences of sound will be proportionally well marked. The course of the disease seems alone to have presented some peculiarities; for here we have a well-marked tertian converted into a quotidian form of fever, after the occurrence of two fits in one day, separated by an interval of perfect apyrexia.

The most interesting point in the whole case is the mode of treatment adopted; for, although there is no novelty in giving to the nurse the specific of the disease from which a child at the breast is suffering, it is not common to adopt such a course where the nurse is herself well. The effect of the sulphate of quinine on the child in this case is very evident, and no less remarkable is the simultaneity of the advance of the attacks, and the diminution of their intensity. Are we to attribute this effect to the action of the sulphate of quinine? The question does not admit of a definite reply; but there is a probability of such being the case, from the fact of the change having succeeded immediately on the administration of the medicine. It must, however, be observed, that this indirect treatment was only attended by an imperfect result; and it was not until after the child had been removed to a purer and clearer air, and frictions of sulphate of quinine had been combined with the treatment adopted for the mother, that a cure was effected. Although I have some doubts regarding the amount of benefit derived from frictions, I do not agree with M. Ebrard in considering that they are indicated only in particular cases, but am disposed to believe that their effect is decidedly beneficial, when they are applied of a strength proportionate to the age of the patient. The question of the administration of this febrifuge as an injection for children at the breast is one of great importance, owing to the difficulty of administering quinine to children by the mouth. M. Ebrard objects to these injections on the score that they cannot be long retained in the intestines; and, although this is undoubtedly true to a certain extent, the case before us seems to prove that they can be tolerated sufficiently long to produce some beneficial result, and I therefore think that the attempt to administer them should never be neglected. Besides these means, and the administration of the medicine by the mouth, intermittent fever may be reduced in young children by the employment of baths of cinchona, &c. M. Ebrard recommends the administration of sulphate

of quinine in an infusion of coffee; but we should certainly feel some hesitation in giving an infant at the breast the quantity (one drachm) that he recommends for the purpose; and before we would venture on such a course we must receive some further evidence regarding the efficacy of a means which, it must be confessed, would more fully than any other substance conceal the bitter taste of the medicine.

The difficulties attending the treatment of the intermittent fever in children of a more advanced age are even greater than those presented in the case of infants at the breast; for when the child is old enough to recognise the taste of the quinine, under whatever form it may be disguised, the mode of treatment is attended by very great embarrassment.

M. Ebrard has observed in a certain number of cases that intermittent fever is often accompanied by more or less violent convulsions. The most treacherous form is, however, that in which convulsions constitute the sole character of the fits, and here it is of the utmost importance to ascertain whether there is a regular intermission in their occurrence, since, if such be the case, the treatment is plain.—*L'Union Méd.*, Nos. 120, 121.

116.—*On Spinal Meningitis.* By M. PIORRY.—In a recent clinical lecture at the Hôpital de la Pitié, M. Piorry called attention to an epidemic of spinal meningitis, in some respects similar to that observed at Strasbourg by MM. Forget and Tourdes. By these authors this disease was observed to prevail chiefly among soldiers, and that class of people who were congregated together in large numbers in the same localities.

M. Piorry had been called to Corbeil by Dr Liounet for the purpose of visiting certain patients then convalescent from spinal meningitis. The epidemic had prevailed in the country in the immediate neighbourhood of Corbeil, and in Corbeil itself. The patients observed by M. Liounet, manifested as symptoms, intense headach, a sense of prickling and of pain in the limbs. Percussion in the course of the spine caused much pain. Convulsions, coma, diminution of power, and sometimes paralysis of the extremities, were also symptoms of the disease observed by M. Liounet. Frequent autopsies demonstrated the existence of pus effused between the arachnoid and pia mater in the cervical region. The encephalon presented no particular morbid appearance. In his lecture, M. Piorry related the particulars of four cases, three of which terminated favourably, the fourth fatally, of these we select the first.

1. A young man aged twenty-two, retained as a prisoner in the Bastion since the insurrection of June. This patient presented the following symptoms:—pain in the neck, extreme rigidity of that part, convulsive movements of the arms; the fingers and toes were rigid and semiflexed; the maintenance of the erect position almost impossible. He complained of excessive pain in the neck and back, augmented by percussion; the sense of pain was more severe at night than during the day. There existed an evident tendency to stupor; the spleen was enlarged. M. Piorry diagnosed spinal meningitis. The treatment adopted was the application of forty leeches to the neck, blisters along the spine, and the exhibition of the sulphate of quinine. On the following day the patient was slightly better, leeches were again applied, and a purgative injection administered. During many days little sensible improvement took place. At the visit of one day, he was found in a much worse condition than on his first admission. Leeches and blisters were again had recourse to; at length convalescence was established, and ultimately a complete cure obtained.

In the examination of the body in the fatal case alluded to, the patches of Peyer in the lower part of the small intestines were congested, the last two or three exhibited superficial ulcerations. The spleen was enlarged; the brain presented nothing remarkable; the surface of the cerebellum was slightly softened at the side of the medulla, in the cervical region; concrete pus was found effused between the arachnoid and pia mater, forming a false membrane. At the inferior part of the spine, also between the arachnoid and pia mater, there existed from three to four spoonfuls of liquid pus. The substance of the cord was not softened.

In the fatal case above recorded, and in two of the others, the symptoms were in most points similar to those of the typhoid fever of France, and in the above instance post mortem examination also revealed similar lesions of the abdomen. In one case of the four, however, no typhoid symptoms were present, and there was none of the extension of the splenic dulness, loading of the colon with the air and fluid, which characterise, according to M. Piorry, the affection in question (the abdominal typhus of the Germans.) Typhoid eruption (taches septicémiques) was present in two cases, and absent in two. The symptoms referrible to the spine were the same in all the cases.

From the observations which M. Piorry himself was enabled to make, as well as from those published in regard to the cerebro-spinal meningitis by MM. Faure-Villar, at Versailles, in 1839, Chauffral at Avignon, Tourdes and Forget at Strasbourg, he concludes that the exciting cause of spinal meningitis, is to be found in the over-crowding of prisons, bastions, &c., and that the agent of its production is an unknown poison, such a poison as is believed to exist in the case of cholera and other diseases of the same kind. M. Piorry attaches considerable importance to the power of energetic treatment when employed early in the disease, in being capable of preventing a fatal termination.—*Gazette des Hôpitaux*, March 8, 1849.

[The reader will find in our *Retrospect* for July 1848, Art. 253, an account by Dr Duncan of Dublin, of epidemic cerebro-spinal arachnitis, as observed in Ireland and on the continent. We would also refer him to the article by Dr Mayne in the Dublin Quarterly Journal for August 1846, and to Dr Darby's communication to the Dublin Medical Press of the same year. The connexion of the disease in France with the symptoms and lesions of typhoid fever, is extremely interesting, and is worthy of further attention. In the limited number of post-mortem examinations made in the Irish epidemic, no abdominal lesion seems to have been found ; but, as the details are not given, we have no means of judging in how far this statement expresses the real character of the disease. The tendency of the disease to attack the spinal column, without in all cases involving the cerebral arachnoid, also suggests the propriety of making the cord a more frequent subject of pathological investigation than is usual.]

117.—*Traumatic Pleuro-pneumonia.*—Traumatic lesions of the lungs are far from being invariably fatal. Thus we frequently meet with very serious cases, accompanied by circumstances against which it would, at first sight, seem difficult for the patient to struggle, which are ultimately cured without leaving any trace.

One of the gardes mobiles, a man about thirty years of age, was wounded in the chest by a ball which lodged in the lungs. A few days after his entrance into the hospital, he expectorated purulent mucus mixed with blood; there was fever accompanied by all the symptoms of inflammation of the parenchyma of the lungs. At this time the patient was on nearly full diet, but had no wine allowed him. M. Malgaigne having made enquiries regarding the circumstances from which this attack arose, discovered that one or two evenings before the expectoration came on, the man had drunk a bottle of wine which had been conveyed to him by his friends. An abscess soon appeared at the portion of the lungs where the ball had lodged, and broke into the bronchi, after which the patient expectorated pure pus.

The condition of the patient became so serious that M. Malgaigne on one occasion thought his case utterly hopeless. He was in a state of the most complete prostration. The pus had forced for itself a passage into the pleura, where a purulent effusion was formed, which escaped both by expectoration and through the wound in the chest. Notwithstanding the serious nature of these circumstances the patient recovered, and was dismissed from the hospital when in a very satisfactory state. Although not kept till his complete recovery, owing to the discovery that in addition to the wine allowed by the hospital regulations, the patient, notwithstanding M. Malgaigne's injunctions to the contrary, continued to drink wine surreptitiously conveyed to him from without.

In reference to this case, M. Malgaigne took occasion to point out that it was one of those cases which show the admirable results that may be expected from a sound constitution, and keeping the patient on a good diet. For how can the system bear up against the debility which necessarily results from continual suppuration if the diet be low? Attention is often so exclusively directed towards the organic condition of the organs, that the vital condition is too often lost sight of, although it is equally worthy of observation. It is generally supposed that where there is inflammation of the lungs the patient must be kept low, but M. Malgaigne observes here, that we should look to the state of the stomach, which is to be discovered not by percussion or palpation, but by the manner in which that organ performs its functions. If it performs its functions in a perfectly normal manner, M. Malgaigne is of opinion that the patient will invariably be benefited by a good diet, however serious the wounds may appear to be.

However much we may agree with the opinions of M. Malgaigne on the subject of the diet to be given to the wounded, it must not be forgotten that, generally speaking, traumatic inflammations of the

lungs are less severe, and less often fatal than idiopathic inflammations, a circumstance that may not have been wholly devoid of influence here.—*Gaz. des Hôp.* Oct. 1848.

118.—*Epidemic of Miliary Fever.*—This disorder, once so common, but now so unusual, broke out several months ago in Nothalten (canton of Barr), attacking principally puerperal women, and cutting off eleven out of fifteen attacked. It is worthy of remark, that a midwife, who had in succession attended the different patients, fell a victim to the disease, and that this put a stop to the epidemic. Soon after, however (December 28), it broke out at Itterswiller, a village of 490 inhabitants, and situate about five furlongs from Nothalten. This time it did not attack in general women, but, with two exceptions, young and robust men, in easy circumstances. Up to the 11th January there had been fifteen attacks in this last place—the first seven individuals had *all* died; eight remained under treatment.

It is to be remarked that the town of Itterswiller presents a very favourable hygienic condition, and that the inhabitants are in good circumstances, making habitual use of wine. There is a considerable Jewish population, but none of the cases occurred among it.

The basis of the treatment was sulphate of quinine, with the acid elixir of Haller (equal parts of sulphuric acid and alcohol).—*Gazette Med. de Strasbourg*, January 1849.

III.—PRACTICE OF SURGERY.

119.—*Removal of the Os Calcis.* By Mr HANCOCK.—At a meeting of the Westminster Medical Society, held January 6, Mr Hancock related a case of caries of the os calcis, where he operated by removing that bone.

R. W., aged twenty-four, a butcher by trade, and of scrofulous diathesis, was admitted into the Charing Cross Hospital, under Mr Hancock's care, on the 23d May 1848. He was suffering from caries of the os calcis of the right foot, with abscess; the bone was rough, but not loose. As his other leg had been removed two or three years before, for scrofulous affection of the knee-joint, Mr H. was anxious to preserve as much of the remaining foot as possible; and as the os calcis seemed the only bone affected, he determined to confine his operation to it alone. Accordingly, on the 2d of June, the patient being under the influence of chloroform, Mr. H., assisted by Messrs Avery and Canton, removed the bone, by carrying an incision from the posterior angles of the inner malleolus, across the sole of the foot, to the external malleolus, the convexity of the flap looking forwards. The flap thus made was carefully reflected, the tendo-achillis divided, and the knife being carried from behind forwards, between the astragalus and the os calcis, the latter was dissected out without any difficulty. Two or three vessels were tied, and the flap brought over; the edges were united by sutures and strapping. All went on very well until the 6th, when erysipelas came on, along with severe constitutional disturbance. On the 9th a large portion of the flap sloughed; and it eventually came away. On the 16th only sufficient skin remained to cover the bones completely. The patient continued to improve until the middle of July, when he was again attacked with erysipelas; several abscesses formed both in the foot, above and below the wound, and in the leg and ham; his strength gave way, and he became very low and weak, and it was very evident that there was very little probability of the limb being saved; but Mr H., being anxious to give him every chance, determined to try the effect of the protein, so highly recommended by Mr Tuson; this was accordingly given in doses of fifteen, afterwards increased to twenty grains, thrice daily. His general health improved, but the foot did not mend; and at length constitutional symptoms returning, and further delay appearing dangerous, Mr Hancock removed the leg, at about five inches below the knee, on the 6th October—four months after the former operation.—*London Medical Gaz.*, January 19, 1849.

120.—*Opinions as to the proper Period of operating for Harelip.*—Dr Mason Warren has recently published a paper, confirmatory of a recommendation he had formerly given, that infants should undergo this operation at as early an age as possible, he having frequently resorted to it twenty-four hours after birth, and with better success than in older children. This arises from the less resistance offered by the child, and the great rapidity of the healing process at that age enabling it to

suckle almost as soon as if nothing abnormal had been present.

In *double harelip*, complicated with fissure of the bones and a projecting tubercle, he operates on one side first, and allows that to heal; for, if both sides be operated on at once the tissues are too much stretched, and suppuration occurs. If one side has united, and a month be allowed to elapse before the second operation, the protuberant intermaxillary bone will be found to have become more or less drawn into its place. Sutures are very preferable to needles, however wide the separation may be; for they can be more easily introduced, cause less irritation, and can be removed in from forty-eight to seventy-two hours, without disturbing the tender adhesions. They allow the part to be inspected, and any excess of inflammation to be kept down by wet compresses; so that, after their removal, the line of adhesion is often free from redness, and, after a short time, is hardly perceptible. The suture needles are most conveniently passed when straight, and sometimes by seizing them firmly with the forceps.—*American Journ. Med. Science*, No. 30, pp. 337-8.

Dr Anselm states, that a long experience has convinced him that the practice of immediate operation, put into force by M. Bonfils, of Nancy, is the best—the child then sleeping much, wanting little nourishment, possessing only an imperfect sensibility, and offering less resistance. The longer the operation is delayed, the less perfect is the adaptation attainable, for the two segments are never developed exactly alike. The imperfect sensibility of the child is so far from favouring, as stated, the occurrence of convulsions, that these are of far more frequent occurrence in older children. The child may easily be nourished for the first three or four days with a teaspoon, and after then it will suck with ease and safety. Much disappointment in this operation results from neglecting to divide the adhesions of the lip to the gum, without which exact coaptation cannot take place. After the operation, constant surveillance of the child by two attendants, during seventy-two hours, is requisite. Each of these, in turn, constantly maintains the parts in exact apposition, by gentle pressure of finger and thumb; for in this way alone can the consequences of the movements of the face be guarded against.—*L'Union Médicale*, No. 76.

M. Guersant observes that there are three periods at which this operation may be performed with different chances of success. The best chance is offered when it is performed within the first fifteen days. Later, we succeed less often, owing to the indocility of the child—its crying, eating, &c., preventing also accurate union. Later still, when the child has reached from ten to fifteen years, we may reason with him, and again operate with more success.—*Gaz. des Hôp.*, No. 75.

In addition to the above, we may observe that M. Paul Dubois likewise, some time since, expressed a strong opinion in the Académie in favour of operating, in simple cases, upon very young infants. He uses very fine insect pins; and, as those usually found in the shops are too long, and bend before the tissues, thus increasing the pain and duration of the operation, they should be shortened before passing. After twenty-four hours the first threads are to be replaced by others, less tightly drawn, such change being repeated daily, and much diminishing the inconvenience produced by the pins. The upper pin may be removed after the seventy-second hour, and the lower one from the eightieth to the ninety-sixth, according to the solidity of the union, which should then be found complete. The children are suckled as usual after the operation, which M. Dubois regards as important for their welfare, and preventive of cries and struggles. He has never met with hemorrhage after the operation, and he believes the best security against this is the bringing the pared surfaces into accurate contact, and the avoiding making incisions into any other part than the lip itself. The detaching from the gum the portion of lip which is nearest to the upper angle of the wound, for the purpose of rendering approximation easier, is in his opinion unnecessary, as the naturally yielding character of the part allows of this being effected.—*Brit. and For. Medico-Chir. Rev.*, Jan. 1849.

Mr Bransby Cooper says:—"For my own part I agree entirely with Sir Astley Cooper in regarding it as unsafe to operate upon infants before weaning—firstly, because, from their excessive irritability, they are totally unable to sustain any loss of blood; and secondly, because, after the operation, they are rendered incapable of sucking; and, indeed, Sir Astley has pointed out in his lectures the frequency of the failures he met with in his own practice in operating upon infants shortly after birth. I consider the best time, under ordinary circumstances, to be soon after the child is weaned, as it is then capable of receiving nourishment independently of its mother, and has overcome the distress incidental to the separation from her.

"At a more advanced age, as the development of the upper jaw increases in proportion to the growth of the teeth, the deformity is very much aggravated, particularly in cases of complex harelip. In addition to this, children of five or six years old can offer resistance during the operation, and are also less patient under the restrictions necessary during the progress of reparation.

"The twisted suture is, I think, preferable to the interrupted; but, from what I have seen of the practice of my colleague, Mr Cock, I am led to consider the uninterrupted suture better than either."—*Med. Gaz.*, June 23, 1848.

121.—*Employment of Collodion in Fistulous Openings.*—Dr Yvonneau, of Blois, relates the following case:—A little girl, five years old, was brought to him, whose right cheek was totally perforated very near the commissure of the lips, in consequence of an abscess which had burst externally (and which had, very neglectfully, not been opened early within the mouth). Both the upper and lower jaw were attacked by caries, and the cheek had formed adhesions with the gums. The part had the shape of a funnel, the apex formed by a fistulous opening, about half an inch in diameter, through which the saliva and the liquid taken into the mouth were dribbling. The continual loss of saliva gave the child an inordinate appetite, in spite of which it was wasting very much. The breath was also extremely fetid. He operated on the eleventh of October, in the following manner:—After having rendered the child insensible by chloroform, freed the adhesions, and removed a portion of the lower jaw which was detached, he then included the fistulous opening in two semicircular incisions, and brought the lips of the wound together. These were kept in contact by a twisted suture upon four needles and strips of adhesive plaster, and a roller around the chin finally contributed in keeping the parts steady. The third day after the operation he perceived that portions of the liquid which the child drank found their way through the fistula as previously; the parts had ulcerated upon the needle, and the fistulous opening was larger than before. Puzzled and annoyed at this failure, he bethought himself of using collodion, which he had employed before with benefit in the place of dextrine for applying bandages to fractures. He obtained perfect stillness in the child by chloroform, and the margin of the wound being exactly brought together by an assistant, he placed strips of very good adhesive plaster across it in an imbricated manner, which included the chin, the cheek, and the ala nasi, and by means of a camel-hair pencil he covered the whole with a layer of collodion. He expected thereby to render the plaster not only thoroughly adherent, but impermeable to the saliva. Three days afterwards he was obliged to remove the dressings, as the child had amused herself by pulling off a strip, and in doing so he was very agreeably surprised to find the wound covered with granulations, and the fistulous opening reduced to a line or two in diameter. The dressings were re-applied in the same manner as above, and not interfered with for the five following days, when he found, instead of the ugly opening a clean linear cicatrix. Dr Yvonneau says, "The collodion has evidently been of very great service here, for not only did it prevent the imbibition of the dressings from capillary attraction externally, but also effectually prevented the saliva from coming in contact with the external part of the wound, and thereby favoured the formation of granulations in the latter. Is it not probable that strips of adhesive plaster thus applied will very conveniently replace the needles in the operation for hare-lip?"—*Union Médicale* and *Lancet*, Dec. 23, 1848.

[Dr Yvonneau, while he appears to us to be right in ascribing much benefit to the collodion in the case he relates, seems to forget that there is one most important point of difference between the treatment for promoting adhesion in cases of hare-lip, and in the cure of salivary fistula. In the former, it is absolutely essential to a perfect cure, that the whole thickness of the margins of the lip be kept in accurate contact; any gaping of the internal mucous surface would be hurtful. In operations for salivary fistula, on the other hand, all that is wanted is accurate contact of the cutaneous margins of the wound; gaping of the deep or mucous surface instead of being hurtful, is positively useful, by re-directing the saliva into the mouth, whilst the external accurate apposition of the cutaneous margins of the opening prevents its passage outwards; and on this principle, indeed, almost all the operations for remedying salivary fistulæ are founded. It is well known that there is greater risk of salivary fistulæ resulting from wounds, where the division of the cheek is only partial, than in those cases where the wound divides the mucous membrane freely, if care be taken to close accurately

only the cutaneous wound, so that the saliva may flow more readily into the mouth than by the external opening. Now, no plasters, however adhesive, can act equally on the deep and superficial parts of an incision; for, whilst they bring and keep the cutaneous margins in accurate apposition, the posterior gape open; and hence the very reason which would induce us to use collodion plaster as an adjuvant to suture in cases of salivary fistula, prevents us anticipating favourable results from its use in cases of hare-lip.]

122.—*On Valvular Obstruction as a Cause of Retention of Urine.* By M. Mercier. In the *Gazette des Hôpitaux* for the 23d and 27th January, there appeared two papers on the remedial measures for retention of urine in old people. M. Mercier states that his researches have shewn him that the cause of retention in these cases, is what he terms valvular obstruction, which he divides into two kinds, muscular and prostatic; the former, he states, arises from the anatomical arrangement of the muscular fibres at the orifice of the bladder presenting, even in their normal condition, a transverse elevation of the mucous membrane covering them; this, he states, increases to such an extent in old people, as to present a true valvular obstruction; and to remedy this cause of retention, he proposes incising the valvular elevation at several points by means of an instrument of the form of the ordinary short curved sound used for exploring the bladder, and containing a small cutting blade which can be projected for the purpose of incising the valve, after the instrument used as an exploratory sound has ascertained its size and position. He states, that at first he tried excision of the projecting portion, but found this means uncertain, and that he now finds deep incisions across the structure of the valve perfectly sufficient. If no accidents occur during the first few days, he applies no other treatment (nothing is said of what these accidents may be) except for the purpose of preventing hemorrhage, which has occasionally though rarely occurred; he recommends that the bladder should not be allowed to be empty, and therefore directs the use of injections of cold water; he finds the presence of the urine sufficient to prevent too rapid union of the incised edges.

By the term prostatic valvular obstruction is meant, the enlargement and projection of the middle lobe of the prostate. For the cure of this cause of retention, it is proposed to twist off or break down the projecting portion. This is effected by means of the lithotrite of M. Jacobson, which consists of two branches enclosed in a sheath; the branch corresponding to the convexity of the curve is formed of separate portions articulated together, so that when the blades are projected from the sheath, the articulated branch forms a sort of noose; when the instrument is closed it presents the appearance and serves the purposes of an ordinary sound. For the operation at present in question, the instrument introduced closed, is used as a sound, and when the valvular projection of the prostate is felt by it, the instrument is opened, the blades are projected from the sheath, and the enlargement of the gland is seized in the noose, and then by drawing back the blades within the sheath, the instrument is closed, and the valvular tumour either twisted off or broken up into fragments which become decomposed in the bladder and pass off with the urine. The only after treatment adopted is the injection of cold water into the bladder to prevent hemorrhage.

It is also mentioned that M. Mequel d'Amboise has obtained favourable results in such cases by the employment of a method at once ingenious and *very simple* (save the mark!) This simple measure consists in taking six small leaden pellets of a conical form, the base of each being about two-fifths of an inch in diameter, and to the apex of each is attached a long and delicate stalk of very flexible iron wire; these are introduced one by one into the bladder by means of a silver catheter open at both ends; and this being effected, the catheter is withdrawn. The operator then unites all the flexible iron wires which project at the orifice of the urethra, and by drawing them towards himself, he pulls all the leaden cones into a mass at the neck of the bladder; this he does with the intention of causing compression of the enlarged lobe of the prostate, but, according to Mr Phillips, it would seem probable that the glandular projection is entangled amongst, and crushed and torn by, the forcible collection of the leaden cones. When the operation is completed, the cones are pushed back into the bladder, and then removed one by one by means of the attached wires.

123. — *Staphyloraphy.* By MM. Gerdy and Ferguson—M. Gerdy, at the Académie Nationale de Médecine, brought forward a young lad of fifteen, on whom he had performed the operation of staphyloraphy, and whose pronunciation was entirely re-established. The cleft-palate in this patient, he stated,

was so large, that the thumb could not cover the opening; there was no separation of the bone. Pronunciation was painful, and very imperfect. The fault of pronunciation was principally on the consonants, especially on the c, s, j, ch, n, b, in fact the whole of the consonants were very much altered from the air escaping by the nostrils. The sounds were so very confused, that the person could hardly be understood. At present the patient is cured, with the exception of a very slight embarrassment, the results of previous habits of speaking: at the same time, the deglutition of fluid, formerly accompanied with difficulty, is now quite easy. M. Gerdy made use of the ordinary process of refreshing the edges; but in place of the interrupted suture, which he always thought bad, from its forming a ring, the pressure of which brought on sloughing of the part, he preferred the quilled suture, which forms only a half circle, and does not strangulate the approximated portions. Instead of quills, he used two small pieces of liquorice root, moistened in warm water; he removed the first thread on the 6th day, and the rest on the 7th. M. Gerdy attributed the success principally to the employment of the quilled suture, which he considers preferable to all others for this purpose.—*Gaz. des Hopitaux*, Oct. 1848.

Mr Fergusson, in his paper on cleft-palate, after describing his plan of operating, by dividing the fibres of the palato-pharyngeal and levator muscles, before bringing the cut surfaces of the cleft-palate into contact, makes the following remarks with reference to the sutures :—

"I still retain the opinion that there is no better mode of introducing the stitches than by means of a slightly curved needle, set in a handle. The point of the instrument, armed with a smooth round waxed silk thread, is passed from below upwards, about a quarter of an inch from the cut margin of the fissure, and made to appear in the middle of the gap, when the thread is seized with forceps, drawn three or four inches out of the mouth, and then the needle is withdrawn. A similar manœuvre is followed on the opposite side; the two threads are then tied together by the ends which have thus been drawn out at the mouth, and, by withdrawing one of them, the other will be carried through the aperture opposite to that where it was first introduced. Hitherto the thread has been double: now, one end must be drawn through the apertures and out of the mouth, and so the thread is ready to be tied. Two, three, four, or five threads are introduced in this way, and then after the cut margins of the flaps are sponged free of blood and mucus, the various threads are fastened.

"In my early operations I generally made a simple knot; or, by turning the thread twice over, made that called the 'surgeon's,' in accordance with the advice of Professor Smith of Maryland. The object of the double turn is to prevent slipping until the completion of the knot. If there be no great muscular spasm, there is seldom any trouble from slipping; if there should be, the twist first made should be held firm with the point of the forceps, or else a favourable opportunity, whilst the parts are very quiet, must be taken to effect the manœuvre. But in preference to such plans, I have latterly adopted a method which I have found to be most satisfactory. A loop is made with a single turn of one end of the thread, the other end is then passed through it, when it is drawn so tight as just to permit the thread within it to slip along on the application of moderate traction. The loop can now be slid up to one of the apertures in the palate, and the cut edges being accurately adjusted, the whole can be kept *in situ* by tying a common knot on the thread close upon the loop. By taking care that the thread is very smooth on the surface, and regular in size, and by drawing the loop with proper firmness, slipping will rarely occur. But, indeed, it is one of the advantages attending my mode of operation, that there is less trouble at this part of the proceeding, than when the muscles are left entire in their natural condition.

"The degree of tightness to which the stitches may be drawn, has often been a puzzling point with me. It has been remarked, that ulcerations frequently take place in the site of the ligatures; and this has been attributed to their tightness. I have no doubt that this is the cause; but if the pressure do not actually strangulate the parts, I believe that no permanent harm will result. If the edges of the fissure are not kept together with some degree of firmness, there is a risk of saliva, or mucus, getting between and preventing union. On the other hand, if all the threads were drawn so as to endanger strangulation, the whole extent of the margins between the threads might slough. On the whole, a moderate degree of tightness should be preferred, rather than that the edges should be kept asunder by saliva or mucus. I have, too, had difficulty in determining the time to remove the stitches. In some of my early operations they were all taken away about the forty-eighth or fiftieth hour; but

latterly I have permitted them to remain longer. I believe that the adhesions are so readily broken on the second or third day, that it is best to permit all, or, at any rate, the most important ligatures, to remain over those dates, in case of any dangerous force being applied at this important period. It is better, in my opinion, to let the threads remain several days too long, than that they should be removed a minute too early. Usually I take one or two stitches away on the third or fourth day, and on the fifth or sixth, remove them all. It is better, I think, to take them out at intervals, than all at once."—*London Journal of Med.*, Jan. 1849.

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

124.—*Tapping for Dropsy of the Amnion.* By Mr Lawrence.—The following is an abridgement by Mr Lawrence, from his note-book, of a twin case in which abortion took place, and in which there was a great excess of liquor amnii :—

"Mrs ——— is four months gone in third pregnancy. At the end of the second month, she seemed larger than in due proportion to the period of pregnancy, but there was no abdominal pain, and the general health was good. The only peculiarity was, that the sickness incident to her state was much more severe than in either of her former pregnancies. About six weeks ago (between the second and third month) she began to experience frequent pain in right lumbar and umbilical regions, which still persists. Her size, since the occurrence of the pain, has been rapidly increasing, and now she presents the appearance of a woman at the full period of utero-gestation. Fluctuation is well marked over the whole abdomen. Diagnosis, 'Pregnancy with ascites.' With the view of removing the latter, she was placed under the usual treatment, and, failing to derive any benefit from it, after eight or ten days I met a medical friend in consultation on the case. He concurred in the diagnosis, and in the pending necessity for the performance of paracentesis. This operation was accordingly performed on Saturday at mid-day, and about six pounds of straw-coloured fluid were withdrawn. The stream through the canula was never full, and never clear, being always more or less tinged with blood ; frequently it was altogether interrupted by a substance which felt soft and spongy when turned aside by the probe, and from which hemorrhage to the amount of five or six ounces proceeded. For some time before the canula was withdrawn, only blood flowed through it. The hemorrhage having ceased, the canula was withdrawn, and the wound closed. The size of the abdomen was not one half reduced by the operation.

Second day.—Passed a good night ; but, between eight and nine this morning, after a little exertion moving round in bed, there was slight hemorrhage per vaginam, followed by rigor and quick pulse, but no abdominal pain. At five P.M. I was summoned suddenly to the patient. About an hour previous, while turning in bed, the membranes burst, and an immense quantity of water was discharged. The bed was literally flooded. In half an hour after this discharge, labour pains came on, and ere I arrived two female fœtuses were expelled, and the half of a double placenta. I delivered the remainder. The quantity of blood lost was trifling. The fœtuses seemed to have been between the fourth and fifth month, and the membranes were of very great size. The uterus was quite contracted, and the abdomen now reduced to its natural dimensions. There was a little febrile excitement for a few days after this; but subsequently the case progressed favourably, excepting that suppuration in one of the mammæ retarded recovery for a time.

"A case very similar to the above is recorded by Desmerais, and quoted by Dr Davis, wherein the same error of diagnosis was committed, and the same treatment pursued. Twenty-one days, however, elapsed between the tapping and the occurrence of labour, whereas in the above case the interval was only about twenty-eight hours. Desmerais' case, like my own, was one of twins, and so also was that of M. Devilliers.—See *Dr Davis's Obstetric Medicine.*

125.—*The Use of Ice to promote Uterine Contractions.* By Dr Louis Mackall.—Dr Louis Mackall, a highly respectable physician of Maryland, in a communication to the committee of the American Medical Association, states, that for several years past he has been in the habit of employing pounded ice in cases of suspended or protracted labour. That when this had been swallowed freely, the pains had immediately returned, the uterus had

contracted strongly, and the labour been speedily completed.

He also communicated letters from Dr B. Mackall, Dr Skinner, and Dr M'Cubbin of Maryland, strongly corroborating his statement of the efficiency of ice in promoting the contractions of the uterus.

Dr B. Mackall remarks, that his experience in the use of ice for this purpose extends through a period of ten or twelve years. "During that time," he says, "I have had frequent opportunities of observing its effects, and I can safely declare, that in no single instance have I been disappointed in its action. I have used it under a variety of circumstances, and always with the most satisfactory result. In cases where labour pains had been suspended for twelve or twenty-four hours, they have been renewed promptly and efficiently. In cases of inevitable abortion, where the uterine contractions are feeble and inefficient, and where hemorrhage is considerable, I regard it as invaluable. In retention of the placenta from imperfect contraction of the uterus, and in cases of alarming hemorrhage after delivery and expulsion of the after-birth, it is equally applicable. In short, wherever the firm contraction of the uterus is desirable, that object will most certainly be attained by the administration of ice." In no instance have I witnessed the slightest ill effect from its administration.

Dr Blackburn of Barnesville states, that he has used a strong decoction of the roots of the cotton plant in two cases of labour, with successful issue, to promote uterine contractions where ergot had failed.— *Transactions of the American Medical Association*, vol. i. p. 234.

126.—*Abdominal Sections.* By Dr CLAY.—The following is a table of forty cases in which the abdomen was laid open by Dr Clay. It includes his whole experience :—

No. of Cases.	Nature of the Disease.	No. of Deaths.	No. of Recoveries.
1	Large fleshy tuberculous tumour of uterus	1	0
1	Extensive uterine disease, with disease of both ovaries	1	0
1	Large ovarian disease, with uterine disease	1	0
32	Ovarian tumours . .	10	22
5	Exploratory incisions	1	4
40	Total cases .	14	26

127.—*Treatment of Uterine Catarrh by Intra-uterine Injections.* By M. STROHL.—The practice of injecting liquids and unguents of various kinds into the cavity of the uterus has frequently been proposed and had recourse to, but the beneficial effects of this mode of treatment, when properly pursued, have never been fully appreciated. The rules which M. Strohl lays down are, *firstly*, to inject only a small quantity of the liquid, and, *secondly*, to provide that the canula through which it is injected be so small as not completely to close the os uteri, but allow the liquid to flow back out of the womb, after its cavity is filled. By attending to these rules the danger pointed out by M. Lisfranc, of pushing the liquid through the Fallopian tubes and into the peritoneal cavity, will be altogether avoided.

The injections may be of very various composition. M. Strohl frequently uses a weak solution of the ioduret of iron. The operation of injecting may be repeated every day, or, better, every third or fourth day ; and they must be laid aside some days before the appearance of the catamenia. In cases complicated with acute or subacute metritis, the injections cannot be safely tried. M. Strohl believes that induration and excoriation of the uterine neck are often caused or kept up by the uterine discharge, and that in these cases the uterine injections are indicated.—*Gazette de Strasbourg*, 1848.

128.—*Bichloride of Mercury in Cases of Hypertrophy and Displacement of the Womb.* By Dr OLDHAM.—The use of the more powerful preparations of mercury in the acute inflammatory affections of the uterus, or where the signs of a true chronic metritis are present, carried to the extent of salivation, is well understood ; but the value of the milder forms of mercury, given in small doses, and continued for a length of time, in gradually absorbing and reducing the thick dense texture of a massive hypertrophied womb, is not, I believe, justly appreciated. The oxide of mercury, and Plummer's pill, are amongst the mild preparations which I allude to ; but the solution of the bichloride of mercury possesses some positive peculiar advantages in the facility with which it may be combined with other remedies, which, in my estimation, give it a decided preference. It commonly happens that the health of females labouring under chronic hypertrophy of the body or the neck of the womb, suffers materially ; and a reasonable fear might be entertained that the protracted employ-

ment of mercury would tend to increase this constitutional feebleness. But, by combining the bichloride of mercury with any of the vegetable tonics, or a chalybeate, it will be found to promote and invigorate the general health, whilst its influence in reducing the hypertrophied tissue is sustained. It is this power of combination which renders it so suitable and efficacious in diseases of the uterus; and it (viz., the solution) may be given in doses of one or two drachms, twice in the day, for three, six, or even twelve months, to delicate females, without injuriously affecting them. It is a perfectly manageable remedy, and very rarely salivates, unless given in large doses, or the patient be excessively susceptible to the influence of mercury. For the last two or three years I have employed this remedy extensively, both at the hospital and in private practice; and the positive amount of good which it accomplishes, with the very trifling amount of evil, has led me to attach great value to it. The reduction of a large and indurated womb is generally slow, and the time which it takes varies extremely in different cases. In some cases the effects are comparatively speedy, and six or eight weeks will suffice to absorb and soften a considerable hypertrophy. A recent case occurred at the hospital, in which the patient had a heavy uterus retroverted, and the angle at which the cervix jutted out from the body was so acute as to give the impression, though erroneous, of a distinct flexion, to which the attention of the clinical clerk was particularly directed. In this case the uterus was greatly reduced, and spontaneously restored to its place, after she had taken the medicine eight weeks. In others a much longer period is necessary, during which the uterus becomes more free and moveable, and, as it diminishes in bulk, its malposition is less and less apparent. If the bowels are torpid, a little tinct. rhei may occasionally be added.— *Guy's Hospital Reports*, Oct. 1848.

V.—MATERIA MEDICA AND THERAPEUTICS.

129.—*Chemical Characters, Composition, and Tests of Cod-Liver Oil.* By Dr PEREIRA.—Some of the fish-oils of commerce are obtained exclusively from the liver, others are procured from the adipose tissue diffused through the body of the animal generally. In the former, therefore, we are prepared to find bile constituents which are not obtainable from the latter.

In fishes, properly so-called, the distribution of oil in the body of the animal is not uniform. In the *Gadidæ* or Cod-tribe (common cod, dorse, coal-fish, pollack, burbot, ling, torsk, &c.), in the *Squalidæ* or Sharks, and in some other fishes, almost the whole adipose tissue of the animal is concentrated in the form of oil contained in the liver. On the other hand, in the salmon, herring, sprat, and wolf-fish, the oil is more diffused through the body of the animal, and the liver is, comparatively speaking, devoid of it.

The oils obtained from the livers of the different species composing the tribe *Gadidæ*, appear to be very similar in their physical and chemical qualities, and there is good reason for believing that they agree in their medicinal properties. To all of them the term *oleum jecoris aselli*, *oleum jecoris gadi*, or *cod-liver oil*, is indiscriminately applied, though it is commonly used, especially in this country, to indicate the oil procured from the liver of the common cod (*Gadus morrhua*, Cuv.)

De Jongh in his *Disquisitio comparativa chemico-medica de tribus olei jecoris aselli speciebus*, published at Leyden in 1843, states that the Bergen (Norwegian) oil is principally obtained from three species, viz., the dorse (*Gadus callarias*), the coal-fish (*Gadus carbonarius*), and the pollack (*Gadus pollachius*), but chiefly from the first.

In general, continental writers distinguish three varieties of cod-liver oil, one white or pale yellow, a second brownish-yellow, a third dark brown. But between the finest pale yellow or almost colourless oil, and the dark brown cod-oil used by curriers, there is an almost infinite variety of shades, so that no absolute difference can be founded on colour only.

De Jongh found the principal constituents of these oils to be *oleate* and *margarate of glycerine*, possessing the usual properties. But they also contained *butyric* and *acetic acids*, *the principal constituents of the bile* (bilifellinic acid, bilifulvin, and cholic acid), *some peculiar principles* (among which was the substance called *gaduin*) and not quite one per cent. of

salts, containing iodine, chlorine, and traces of bromine. Moreover, he found that the oils always contained free *phosphorus*.

From De Jongh's analyses, it would appear that the *pale* oil is richest in oleic acid and glycerine—that the *brown* oil contains the largest amount of margaric, butyric, and acetic acids, and of the substances peculiar to cod-liver oil—and, lastly, that the *pale brown* oil is richest in iodine and saline matters.

Considerable importance has been given to the fact that cod-liver oil frequently or usually contains both *iodine* and *bromine*. To the presence of one or both of these substances has been ascribed the whole or part of the remedial efficacy of the oil. A little consideration, however, would be sufficient to prove that their therapeutical agency in the oil must, if any, be exceedingly small. The proportions in which they exist in the oil is inconstant, though in all cases very small. Moreover, beneficial effects have been produced by the use of the oil, which neither iodine or bromine are capable of producing.

The largest amount of iodine found in genuine oil is less than 0·05 per cent. If the amount obtained be larger than this, fraud may be suspected. It is said by Dr Martiny that some dishonest druggists have introduced iodine into the oil for the purpose of augmenting its commercial value. Nay, it is stated that an artificial cod-liver oil has been made by combining iodine with common fish or train oils.

The proportion of *bromine* was estimated in conjunction with that of chlorine, as the quantity was too small to admit of accurate separation. Together, their amount in the pale oil was 0.14 per cent.

In the same analysis the proportion of *phosphoric acid* was 0·09, and of *phosphorus* 0·02 per cent.

The characters by which we judge of the genuineness, purity, and goodness of the oil are partly physical, partly chemical.

The physical characters are colour, odour, and flavour. The finest oil is that which is most devoid of colour, odour, and flavour. The oil as contained in the cells of the fresh liver is nearly colourless, and the brownish colour possessed by the ordinary cod-oil used by curriers is due to colouring matters derived from the decomposing hepatic tissues and fluids, or from the action of air on the oil. Chemical analysis lends no support to the opinion, at one time entertained, that the brown oil was superior, as a therapeutical agent, to the pale oil. Chemistry has not discovered any substances in the brown oil which could confer on it superior activity as a medicine. On the other hand, the disgusting odour and flavour, and nauseating qualities of the brown oil, preclude its repeated use. Moreover, there is reason to suspect that, if patients could conquer their aversion to it, its free use, like that of other rancid and empyreumatic fats, would disturb the digestive functions, and be attended with injurious effects.

Of the chemical characters which have been used to determine the genuineness of cod-liver oil, some have reference to the iodine, others to the gaduin or to the bile constituents. It was already stated that some fraudulent persons are said to have admixed iodine (either free iodine of iodide of potassium) with train oil to imitate cod-liver oil. The presence of this substance, when mixed artificially, may be readily detected by adding a solution of starch and a few drops of sulphuric acid, by which the blue iodide of starch is produced; or the suspected oil may be shaken with alcohol, which abstracts the iodine.

Sulphuric acid has been employed as a test for cod-liver oil. If a drop of concentrated sulphuric acid be added to fresh cod-liver oil, the latter assumes a fine violet colour, which soon passes into yellowish or brownish-red. Some samples of oil produce at once the red colour, without the preliminary violent tint. It has been erroneously supposed by some persons that this violet colour was due to the evolution of iodine by the action of the acid on an alkaline iodide contained in the oil. If that were the case, the presence of a little starch-paste would be sufficient to convert the violet into an intense blue colour; which is not the case. The colouration in fact depends on the action of the sulphuric acid on some one or more organic constituents of the oil, and the following facts lead Dr P. to infer that it is in part due to the presence in the oil of one of the constituents of the bile. Dr Pereira then enumerates several facts, in favour of this view. He concludes:—

"It follows, therefore, from what has been stated, that oil of vitriol is a test for liver oils. It does not distinguish one liver oil from another, for it re-acts equally with the oil of the liver of the ray and with the oil of the liver of the common cod. Neither does it distinguish good cod-liver oil from bad, for it produces its characteristic re-action both with common brown cod-oil, and with the finest and palest qualities. But it serves to distinguish oil procured from the liver, from oil obtained from

other parts of the animal."—*Ph. Journ.*, Feb. 1849.

130.—*Sulphate of Amorphous Quinine.* By Mr Bullock, Chemist, London.—As a therapeutic agent, Mr Bullock considers this preparation in every respect equal, and for some purposes superior, to the crystalline variety of quinine. It is now some years since Mr B. first recommended it to the profession, during which period its value as a substitute for the ordinary sulphate, has been most extensively tested in all those diseases in which quinine is employed. As a periodic in intermittent fever and neuralgia, it appears to be equally energetic with the crystalline preparation, and as a stomachic and general tonic, many bear testimony to its greater efficiency, from the ease with which it is borne by the stomach. The headach and other unpleasant effects, which frequently result from the exhibition of quinine, are rarely occasioned by the amorphous salt.

The salts of amorphous quinine being deliquescent, the sulphate is sold in solution, five minims of which contain a grain of the salt. This is very convenient in prescribing. Mr B. recommends those who desire to employ it in combination with a vegetable acid, to order the acetate which is prepared in the same manner as the sulphate. The following are the proportions of the different acids required for the preparation of the salts of amorphous quinine.

One grain of amorphous quinine requires
4 minims dilute sulphuric acid.
3 ... hydrochloric acid.
5 ... nitric acid
3 ... phosphoric acid.
7 ... acetic acid.

2 grains citric acid
2 „ tartaric acid
} Mix with the amorphous quinine then add a few drops of water.

Rub the amorphous quinine with the acid in a mortar until it is dissolved.

The price of the sulphate of amorphous quinine, which is less than one-half that of the crystalline variety, strongly recommends it to the physicians of hospitals, dispensaries, and other charitable establishments, as well as to country practitioners, who will find it a considerable economy.

[From extensive trials we are satisfied that the solution of the sulphate of amorphous quinine, represents all the most important physiological and therapeutic properties of cinchona bark. We found it eminently useful in improving digestion and in restoring the normal tone to the stomach of convalescents from cholera. In diseases of debility generally, it is an excellent tonic. Equally active with the crystalline sulphate, it is certainly less apt to disorder the stomach in full doses. M. Winckler's observations on amorphous quinine and cinchonine were noticed in our Retrospect for 1848. P. 151.]

131.—*Physiological Action of Nitrate of Potassa.* By F. Löffler.—The following account of the action of nitre is derived from a series of experiments made by five students on their own persons, while in health. The salt was taken in solution, with the addition of a little mucilage, in quantities increasing gradually from one to five drachms daily. The proportion for each day was divided into five separate doses. Each student took in this manner, during the course of one experiment, from three to five ounces.

After from eight to twelve days' use of the medicine, the blood drawn from the veins presented the following characters:—1. In colour and density it resembled cherry juice. 2. The number and size of the colourless blood corpuscles were increased. 3. The blood globules were paler in colour. 4. The blood coagulated very quickly. (The average time required for the coagulation of blood taken from the five subjects of experiment, previous to the employment of the nitre, was ten minutes—after its use, only five minutes and three quarters.) 5. Increased proportion of water, and corresponding diminution of the solid constituents of the blood. 6. Diminution of its fat. 7. Increased proportion of ash in serum. 8. Diminished firmness and elasticity of the crassamentum, the solid constituents of which were less in quantity than in normal blood.

The symptoms observed from the use of the nitre were general weakness, and indisposition to exertion of body or mind, increasing in intensity with the continued employment of the drug; low spirits; fatigue from the slightest exertion; the muscles and joints felt as if they had been bruised, and the knees were especially weak; constant disposition to sleep; slow and weak pulse. This last symptom began to show itself on the second or third day, and gradually became more marked; so that towards the end of the experiment the frequency of the pulse was several times reduced to twenty beats in the minute. The pulse did not recover its normal strength and frequency for seven or eight days after the discontinuance of the medicine. Towards the end of the experiment, the face became distinctly paler and thinner. The appetite

continued good, and the digestion was not disordered. The action of the bowels was for the most part healthy, at other times the drug occasioned some pain of the belly, followed by purging. On account of the great heat which prevailed while the experiments were made, no certain deductions can be drawn in reference to its action upon the kidneys. The quantity of urine, on several occasions, exceeded by as much again the amount of fluid drank, and generally there was more or less diuresis.

The author promises to repeat his experiments when the temperature is more suitable, to ascertain precisely the changes induced in the composition and quantity of the urine.—*Schmidt's Jahrb.*, 1848.

[At p. 71 of last month's *Retrospect* we noticed M. Cardan's interesting case, where three ounces of nitre, administered accidentally to a man, occasioned severe intestinal irritation and marked diabetes. In the *Union Méd.*, of March 3, M. Vanoye reports another case, where one and a half ounces of the nitrate of potassa were given, by mistake, to a young female, ill of typhus fever. For an hour she experienced considerable uneasiness and inclination to vomit. Her face became remarkably pale, contrasting strongly with its previous febrile flush. Repeated vomitings, alternated with fainting, soon succeeded. The vomited matter contained bile, and a large quantity of blood. She complained of acute pains in the epigastrium. From being strong and full, the pulse was now small and irregular, and fears were entertained for the patient's life. She recovered. The treatment consisted in cold emollient drinks, a little laudanum, and sinapisms. She had no desire to urinate until about four hours after taking the nitre, when she passed some clear, high-coloured urine, which gave no deposit on cooling. Afterwards the quantity of urine was not greater than the normal. It is worthy of remark that, on the day following, the patient was convalescent from the typhus fever. This fact is the more surprising as, of three members of the same family who had typhus at the same time, one died, and the other two were long and seriously ill.

Compared with M. Cardan's case, M. Vanoye's is peculiar in the entire absence of diuresis, which can be accounted for only by supposing that the salt was rejected by vomiting. The action being purely local on the gastro-intestinal mucous membrane, absorption was prevented, and hence the secondary effects could not be manifested.]

132.—*Powder of Cinchona Bark in Typhoid Fever.* By M. VESIGNIE.—The treatment recommended by M. Vésignié is applicable only to the second stage of typhoid fever, and its object is, to apply directly to the ulcerated surface of the intestines an agent which will promote cicatrization of the ulcers, and at the same time exert an antiseptic action on the contents of the bowel. The drug best adapted to accomplish this end is, according to the author, the powder of red bark, which traverses the entire canal, and reveals its presence in the fæces, by the colour which it imparts to them. He considers the beneficial action of cinchona powder, when applied to gangrenous sores on the external surface of the body, an established fact. To avoid irritation of the stomach, he administers the bark in small and frequently-repeated doses—(8 grs. every two hours). The author suggests, but has not himself tried, the addition of one-tenth part of camphor. *L'Union Méd.*, Jan. 9, 1849.

[M. Vésignié's experience of this mode of treatment has not been sufficiently extensive to satisfy us of its utility. The administration of cinchona bark in severe fevers is no novelty; but, although the practice is old, M. Vésignié's theory of the action of the drug is new. Formerly its general tonic power was desired, and with this view it was given frequently in decoction and infusion, the more readily to secure absorption. In therapeutics it is a good general rule always to apply drugs directly to the diseased part, where that is possible—as the local agency of medicines is greatly more certain and effective than their general or remote action. We have, therefore, always approved of attempts to act locally upon the intestinal lesions of typhoid fever; but we fear that the agents (nitrate of silver, chlorides, &c.) hitherto exhibited by the mouth with this intention, rarely arrived at their destination, and it is scarcely possible to reach the ulcers by injection into the rectum. The proposal of M. Vésignié is worthy of a trial.]

133.—*Cauterization with Sulphuric Acid in Articular Rheumatism.* By M. LEGROUX.—The author relates several cases of articular rheumatism where the joints continued obstinately painful after all fever had subsided, notwithstanding the frequent application of blisters and other

local remedies. Ultimately cauterization with sulphuric acid, repeated three or four times, effected a cure. The acid is lightly painted over the more painful spots of the joint with a hair-brush, or piece of lint. A superficial brown eschar is formed, which leaves no cicatrix.—*Bull. de Thér.*, Jan. 1849.

134.—*Experiments on Senna and Argol Leaves.* By HEBERLEIN.—According to Heberlein, spirit of wine extracts from senna-leaves only chlorophylle and extractive matter, the *cathartine* of Lassaigne and Feneulle, which does not, however, possess in the slightest degree the purgative effect ascribed to it by these gentlemen; for after repeated experiments with smaller quantities, the alcoholic extract of one and a half ounces of senna leaves were taken without any effect. The uselessness of treating senna-leaves with spirit of wine, and the inefficacy of tinctura sennæ are therefore obvious. The aqueous extract of four drachms of senna leaves, which had first been exhausted by spirit of wine, effected evacuations with griping; so that the griping principle had not been removed by the spirit. The leaves used for these experiments were those of Tripoli senna, which are quite free from the leaves of *Cynanchum Argheul*. The latter, which are found among the Alexandrian senna, are in bad favour among physicians, but without just grounds, for experiments made with the picked leaves of *Cynanchum Arghuel* showed them to be harmless. An infusion of two and a half drachms produced no effect or inconvenience.—*Pharmaceutisches Central-Blatt*, No. 54.

135.—*Hydrochloric Solution of Arsenious Acid; De Valangin's Solutio Solventis Mineralis.* By Dr PEREIRA.—Arsenious acid, gr. xxx.; hydrochloric acid, gr. xc.; distilled water, f℥xx. Dissolve the arsenious acid in the hydrochloric acid diluted with about f℥j. of water; then add the remainder of the water to the solution.

By dissolving arsenious acid in hydrochloric acid, we obtain a solution either of the *terhydrochlorate of arsenious acid*, or of the *terchloride of arsenic*. $As\,O_3 + 3\,HCl = As\,Cl_3 + 3\,HO$.

For the preceding formula for the preparation of De Valangin's solution, Dr Pereira is indebted to Mr Warington, who tells him that it is the one which is intended to be introduced into the forthcoming new edition of the *London Pharmacopœia*. De Valangin's solution is considered by some practitioners to be superior to any other preparation of arsenic.

Dr Pereira has on numerous occasions employed De Valangin's solution, and he is not satisfied of its superiority to the solution of arsenite of potash, which cures or greatly relieves a very large portion of the cases of chorea and lepra which usually present themselves. It is supposed to be less apt to disturb the stomach on account of its not suffering decomposition and separation of the arsenious acid, as does arsenite of potash, by the acid gastric secretion. Before its absorption, however, its acidity must be neutralized by the bases (soda of the bile principally) which it meets with in the alimentary canal. It is probable, therefore, that the arsenic of De Valangin's solution passes into the blood as arsenite of soda.

One fluid ounce of the solution, prepared according to the formula above given, contains only one grain and a half of arsenious acid; whereas the same quantity of Fowler's solution contains four grains of arsenic. It is probable, therefore, that the real explanation of the infrequent occurrence of gastric symptoms under the use of De Valangin's solution is referable to the smaller quantity of arsenic administered.—The dose is from ♏ij. to ♏x. thrice daily.—*Materia Medica*, p. 669.

VI.—FORENSIC MEDICINE AND TOXICOLOGY.

136.—*The Poisons of the Animal Kingdom.*—The poisons of the animal kingdom have not usually been considered under a general point of view. These poisons fall into two groups; and this division closely corresponds with the differences in their mode of operation, and in the therapeutic indications. Those of the one group exist ready formed in certain animals; and, as these belong to a state of perfect health, they should be termed normal animal poisons. Those of the second group are accidental, being produced in a state of disease; these are the anormal or pathological animal poisons. The first belong to the family of sedative agents (hyposthénisants, or apyretiques); the second are excitants (hypersthénisants).

The normal organic poisons of the animal kingdom occur only in the lower parts of the

zoological scale, and particularly among the cold-blooded tribes. They fall chiefly under three heads,—reptile-poisons, fish-poisons, and insect-poisons. To the last head belong the poisons of cantharides, of bees, of wasps, of hornets, &c. Some natural products of quadrupeds, such as musk and castor, might come under this head, were these to be considered as poisons. There are also some altered animal substances accidentally rendered poisonous, which do not, like the last, coexist with life; of this latter description are lard, puddings, sausages, cheese, &c. These substances should be ranked with the first group, on account of their sedative action (à cause de leur action hyposthénisante). All the poisons of this first group require a stimulant treatment, as has been shown by many memoirs, rich in facts, scattered through the five first volumes of this journal (*Annales de Thérapeutique*). The anormal or pathological poisons are of a very different character. The morbid poisons, as that of rabies, glanders, malignant pustule, variola, vaccinia, syphilis, belong to this head. Besides their specific character, which renders them inoculable, these poisons produce in the animal economy inflammatory and febrile phenomema, requiring in general a reducing treatment, based on remedies of special action (une medication hyposthénisante et speciale, savoir basée sur des remedes à action élective). The majority of epidemics and of eruptive diseases fall under this head.—*Annales de Thér.*, Dec. 1848, and Jan. 1849. P. 361.

137.—*Poisoning by Mushrooms.*—Cases of poisoning by mushrooms have increased in Italy of late to a frightful extent. Very recently an accident of this kind at Pisa was reported, which proved fatal to seven persons. The Journal of the Medico-Chirurgical Academy of Turin, which has just come to hand, recounts three other like accidents; one in Piedmont, and two at Rome. In that of Piedmont, the family of a peasant at Lombrioseo suffered, the whole family consisting of seven persons having perished. In one of the cases at Rome, the mushrooms were gathered by a joiner near the Pontine Gate; in the other, by a dyer near the Popolo Gate. Both carried the mushrooms to their families, and five persons in all were destroyed, namely, the joiner, his wife, and his daughter, a girl of ten years of age; the wife of the dyer, and his daughter, twelve years old. All these deaths took place within forty-eight hours.—*Annales de Thér.*, Dec. 1848, and Jan. 1849. P. 361.

138.—*Case of attempted Poisoning by the introduction of Sulphuric Acid into the Rectum.*—M. PINJON of Saint Etienne, has given in the *Jour. de Méd., de Lyon*, a detailed account of the history of a case in which a wife attempted to destroy her husband, first by poisoned wine, and then by the use of enemata, containing sulphuric acid. The symptoms, as might be anticipated, were those of extreme irritation of the bowels within, and of the external parts adjacent to the anus. The case was treated without any suspicion of the cause of the patient's sufferings—nor was the real nature of the case discovered till three months had expired. About the fourteenth day from the commencement of the symptoms, a portion of intestine was passed by stool—after which the amendment, though very slow, was gradual, and a complete recovery took place. The event occurred in the end of 1844, and four years after the man (Maisonneuve), was examined by M. Pinjon, and found to enjoy good health, though with some peculiarities in the action of the bowels. The account before us does not enter into any detail of the evidence on which the charge of poisoning is founded, reference being made only to the effect produced on the straw of the chair on which he sat when the first enema was administered, and on the curtain of the bed on which he lay where the second was used.

Two cases besides are referred to in which sulphuric acid was thrown into the rectum, and yet recovery for the time took place, one detailed by M. Fouquier, in the *Gazette des Hopiteaux*, 1846, p. 575, the other in the *Annales de Thérapeutique.* Vol ii. p. 457.—*Annales de Thér.*, Dec. 1848, Jan. 1849. P. 359.

139.—*Poisoned Confectionary.*—DR WALTER FERGUS has published the case of three children who were attacked with symptoms of poisoning in consequence of having eaten portions of the green sugared ornament of a cake. The symptoms were of considerable severity for some time, but all recovered. From the residue of the ornament arsenic was distinctly obtained. Dr Fergus ascribes the recovery of his patients in part to the immediate use of the hydrated peroxide of iron. As this agent is believed to exert a chemical effect on the arsenite of copper, the form of arsenic supposed to be present in such ornaments, a difficulty arises as to the soundness of this conclusion.—*Lond. Med. Gaz.*, Feb. 16, 1849, p. 304.

140.—*Effects of the Use of Arsenic in Agriculture.—Poisoned Game.* By Dr

FULLER.—Dr Fuller of St George's Hospital has recently called attention to the probable injurious effects resulting from the use of arsenic in steeping seed-corn.

"For some months past," says Dr Fuller, "in certain parts of Hampshire partridges have been found dead in the fields, presenting a very remarkable appearance. Instead of lying prostrate on their side, as is usually the case with dead birds, they have been found sitting with their heads erect and their eyes open, presenting all the semblance of life. This peculiarity, which for some time had attracted considerable attention among sportsmen in the neighbourhood, led to no practical result until about ten days ago, when a covey of ten birds having been found nestled together in this condition, two of the birds, together with the seeds taken from the crops of the remaining eight, were sent up to London for examination. I was requested to undertake the investigation, and the result of my experiments I will now briefly detail.

"I first examined the seeds taken from the crops of the birds, and detected, as I anticipated, a large quantity of arsenic. I then proceeded to ascertain whether the flesh of birds so poisoned might not itself prove poisonous when eaten, and with this view I carefully cut the flesh off the breast and legs of one of the birds, and gave it, together with the liver, to a fine healthy cat. She ate it with avidity, but in about half an hour she began to vomit, and vomited almost incessantly for nearly twelve hours, during the whole of which time she evidently suffered excessive pain. After this nothing would induce her to eat any more partridge. I kept her without food for twenty-four hours, but in vain; she resolutely refused to touch an atom more of the bird. This being the case, I gave her some beef and some milk, which she eagerly swallowed—proving, beyond doubt, that her instinct, and not her want of appetite, induced her to forego the dainty meal which had just been offered her.

"I cut the flesh off one side of the breast of the other partridge, and after about an hour's boiling obtained, by Reinsch's process, a thin incrustation of metallic arsenic—thus demonstrating, beyond question, what the previous experiments had left little room for doubting.

"It is notorious that many of the dealers in game are supplied through the agency of poachers and others, who have a direct pecuniary interest in supplying them with the largest possible number of birds. It is certain, moreover, that if men of this sort were to find a covey of partridges in a field, dead, but fresh and in good condition, they would not hesitate to send them with the remainder of their booty to the poulterer, who would as certainly, without suspicion, sell them to his customers. And, after the experiments above detailed, there can be no reasonable grounds for doubting that these birds, when eaten, would produce disagreeable and injurious, not to say poisonous, effects on those who partake of them. It is obvious, therefore, that in all cases of supposed cholera, or of suspicious bellyache, occurring at this season of the year, we shall do well to make particular inquiry as to whether our patient has recently partaken of pheasants or partridges purchased at a poulterer's; and it is further manifest that in all cases of poisoning, or suspected poisoning by arsenic, the fact of the persons having lately eaten of partridges and pheasants must form an important element in the inquiry, and must tend to cast a suspicion on the evidence adduced to prove a criminal intent in the administration of the poison. So that in a medico-legal point of view the question is one of the gravest import."—*Lancet.*

[The subject to which Dr Fuller has very properly called attention has been pretty fully discussed by Mr Taylor, in his recently published work on poisons. Mr Taylor had found arsenic in the flesh of game which had been poisoned by steeped corn, and arrived at the same conclusions as Dr Fuller. The subject has also been investigated in France, where a commission was appointed by the Academy of Sciences to prosecute an inquiry as to whether the flesh of sheep suffering from the effects of arsenic was poisonous. It was ascertained that the flesh of poisoned animals is noxious; but, if they live sufficiently long, the whole of the arsenic is voided in the urine and fæces, and the flesh may then be eaten with impunity.]—*Ph. Journ.*, Jan. 1849.

141.—*Poisoning by the Berries of the Yew.*—There are very few cases recorded of poisoning by the berries of the Taxus baccata; indeed, many persons disbelieve in its poisonous nature altogether. Gray, in his treatise on Pharmacology, says, "the berries have been thought to be poisonous, but they may be eaten." I believe they are not mentioned by Dr Christison in his valuable work on poisons. Drs Copland, Guy, and Taylor, in their respective works, bear testi-

mony to the extremely poisonous nature of the Taxus baccata.

Sunday, Oct. 28, 1838. Mary Baker, a fine healthy child, between five and six years of age, ate freely of yew-berries just before going into church. About an hour after, during divine service, she fell from her seat, and was instantly removed, in an insensible state, to her home. I saw her immediately; the surface of the body was cold; the countenance pale; breathing laborious and frequent; pupils very dilated; pulse feeble; convulsions, and vomiting. Having carefully examined the head, and finding it was not injured by the fall, I gave an emetic, and from what was ejected, it was evident she had eaten a considerable quantity of the berries; not the mucous part only, but the seeds, wherein I believe is the most active principle of the berry, for the mucous or fleshy part of the berry has been frequently eaten with impunity. As soon as it appeared the stomach had been freed of its contents, a purgative was given, and had the desired effect, but the child never rallied from the first. She continued in a comatose state, and died in *four hours* after eating the berries. An inquest was held, but no post-mortem examination allowed. I stated, in my evidence, I considered yew-berries poisonous, and that the child's death had been occasioned by them, but I remember several of the jury were very sceptical on the point.—*Dr Taylor in Prov. Journal.*

142.—*Process for the more certain Detection of Arsenic.* By Dr Geoghegan. —The author proposes the following procedure, by which a given quantity of arsenic may be transferred undiminished to each of the fluid tests in succession. As minute precautions in manipulation vitally affect the result, he premises that want of success in the application of the fluid tests to small sublimates, sometimes arises from not reducing the latter to powder before attempting their solution. The sublimate being carefully detached by a glass rod, aided by a fine stream of distilled water, should be received in a small porcelain mortar, and carefully triturated. The solution having been effected by boiling, should (1) be precipitated when cool by ammonio-nitrate of silver. The yellow arsenite obtained is to be next decomposed by a slight excess of pure hydrochloric acid, and the filtered solution treated (2) by a current of sulphuretted hydrogen. Having ascertained the solubility of the resulting sulphuret in ammonia, it should now be dissolved in nitro-muriatic acid, and evaporated to dryness (avoiding excess of heat at the close), re-dissolved and precipitated (3) by nitrate (or ammonio-nitrate) of silver, which yields the brick-red arseniate (4.) Finally, the latter being decomposed by hydrochloric acid, in minimum quantity, the filtrate should be heated with a few drops of an aqueous solution of sulphurous acid, the excess of the latter expelled, and hydrated oxide of copper, with ammonia, in minute quantity, added. We can thus elicit the reactions of the *four* fluid tests from a quantity of arsenious acid which would prove refractory by the common method of subdivision, and are hence enabled to ensure a satisfactory issue in difficult cases. The final step of the operation is not always successful, the ammonio-sulphate of copper being, even in experiments on larger quantities, a much less delicate test than those previously named. Having obtained, however, the antecedent results, the evidence of the presence of arsenic may be deemed complete. Modifications of the foregoing method will at once suggest themselves, and may be adopted at pleasure. It may occur to the instructed reader, that the success of the copper test might be secured by re-precipitation and sublimation of the arsenic subsequent to the formation of arsenite of silver; as, however, there is reason to believe that no inconsiderable portion of the metal is often retained by the copper foil as an arseniuret, this procedure is not to be recommended.—*Med. Gaz.*, Oct 6, 1848.

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CONTENTS.

I.—PRACTICE OF MEDICINE.

143.—*On the Symptoms of Disease of the Pancreas.* By Professor Siebert of Jena.—The author enters into an analysis of the symptoms in fifteen cases, which were concluded to be examples of pancreatic disease *by the method of exclusion.* These cases presented in common the following characters:—1. Pain in the epigastrium deeply situated and increased on pressure, and in the exacerbations radiating towards the back and thorax. 2. Pain, oppression, and burning eructations or vomitings of watery matter at the time of the duodenal digestion, *i. e.*, a few hours after taking food, accompanied either by constipation or diarrhœa, but with little alteration of the primary digestion, or of the state of the tongue and appetite. 3. Emaciation, followed sooner or later by anæmia, while the quantity of nutritious food consumed was considerable. 4. Pulsation in the epigastrium, often visible, increased by pressure, and occasionally accompanied by an arterial bruit, communicated to the stethoscope. This sign, when others harmonise with it, is supposed by the author to be pathognomonic of disease of the pancreas.

Professor Siebert has never found sugar in the urine of persons labouring under the above symptoms, nor has he generally found these symptoms to be present in diabetic patients. His views, therefore, afford no support to Bouchardat's theory which ascribed the diabetic condition to disease of the pancreas. (See the review on Diabetes—*Monthly Journal*, September 1848).—*Haeser's Archiv. für die Gesammte Medizin.*, and *Œst. Medizin. Wochenschrift*, April 22, 1848.

[We need scarcely point out that the *method of exclusion* is a very slender protection against error in so bold an assumption as that of Professor Siebert. With-

out, however, adopting his speculative diagnosis too hastily, we think the above group of symptoms worthy of attention. Individually, they have long been known as characterising that protean disorder, dyspepsia; and it is not at all improbable that they may be more or less closely connected with the derangements of an organ which every day teaches us more and more to regard as of the greatest consequence to the assimilative functions. The epigastric pulsation, to which such importance is attached in the paper before us, is a not unfrequent symptom of deranged digestion; but it certainly occurs, as we can attest from repeated observation, entirely apart from the other symptoms mentioned by the author, and apparently without any other organic cause. Dr Parry, it is well known, ascribed it to the pressure on the aorta of fæces in the transverse colon; and various other theories of its production have since been given to the world. That of the author seems, on the whole, to have a good deal in its favour. "When we think," says he, "that the pancreas is supplied by numerous and large arteries springing from the aorta on which its head rests, and that it is furnished with nerves from the same plexus which surrounds the aorta, we may consider the pulsation in question as bearing the same relation to irritation of the pancreas, as the pulsation of the regions over an inflamed paratōd, or a vascular struma (inflamed goitre)."]

144.—*Anæmia—Disease of the Suprarenal Capsules.* By Dr ADDISON.—Dr Addison described a remarkable form of anæmia, which, although incidentally noticed by various writers, had not attracted, as he thought, by any means, the attention it really deserved. It was a state of general anæmia incident to adult males, and had for several years past been with him a subject of earnest inquiry and of deep interest. It usually occurs between the ages of twenty and sixty; sometimes proceeding to an extreme degree in a few weeks, but more frequently commencing insidiously, and proceeding very slowly, so as to occupy a period of several weeks, or even months, before any serious alarm is taken either by the patient or by the patient's friends. Its approach is first indicated by a certain amount of langour and restlessness, to which presently succeed a manifest paleness of the countenance, loss of muscular strength, general relaxation or feebleness of the whole frame, and indisposition to, or incapacity for, bodily or mental exertion. These symptoms go on increasing with greater or less rapidity: the face, lips, conjunctivæ, and external surface of the body, became more and more bloodless; the tongue appears pale and flabby; the heart's action gets exceedingly enfeebled, with a weak, soft, unusually large, but always strikingly compressible, pulse; the appetite may or may not be lost; the patient experiences a distressing and increasing sense of helplessness and faintness; the heart is excited, or rendered tumultuous in its action, the breathing painfully hurried by the slightest exertion, whilst the whole surface bears some resemblance to a bad wax figure: the patient is no longer able to rise from his bed; slight œdema perhaps shows itself about the ankles; the feeling of faintness and weakness becomes extreme, and he dies either from sheer exhaustion, or death is preceded by signs of passive effusion or cerebral oppression. With all this, the emaciation or wasting of the body, though sometimes considerable, is not unfrequently quite disproportionate to the failure of the powers of the circulation—relaxation and flabbiness, rather than wasting of the flesh, being one of the most remarkable features of the disorder.

Dr Addison next proceeded to give the details of several cases which had fallen under his own immediate observation. In only two of these did the patients recover: the one, a man below the middle period of life, who was looked upon as past all hope, and suspected to be suffering from some latent malignant disease, slowly but steadily recovered under the free use of brandy, but with the singular result of the hair of one side of his head turning permanently grey, whilst the other retained its original brown colour. The second case of recovery occurred in a gentleman above middle age: it was by no means far advanced, but was sufficiently well marked to excite alarm. He left his business, quitted London, and sought recreation in the country. After a time he returned, and appeared to have shaken off the disorder almost entirely. In three cases only was there an inspection of the body after death, and *in all of them was found a diseased condition of the suprarenal capsules.* In two of the cases no disease whatever could be detected in any other part of the body. Dr Addison inquired if it were possible for all this to be merely coincidental? It might be so, but he thought not, and making every allowance for the bias and prejudice inseparable from the hope or vanity of an original discovery, he confessed that he felt it very difficult to be persuaded that it was so. On the contrary, he could not help enter-

taining a very strong impression that these hitherto mysterious bodies—the supra-renal capsules—may be either directly or indirectly concerned in sanguification; and that a diseased condition of them, functional or structural, may interfere with the proper elaboration of the body generally, or of the red particles more especially. At all events, he considered that the time had arrived when he felt himself warranted in directing the attention of the profession to these curious facts. In thanking the society for the patient hearing with which they had favoured him, he ventured to bespeak their interest not only in regard to the anæmia he had described, but also in cases of purpura, and some of the more anæmiated forms of chlorosis in the female, which he could not but regard as being more or less allied to the morbid state to which he had directed their attention. Indeed, not only had he found the anæmia in question occasionally occurring in connection with purpura, but had observed in cases of the latter disorder certain local symptoms which pointed somewhat significantly to the seat of the supra-renal capsules; whilst the bloodless and waxy appearance of certain chlorotic females bore so close a resemblance to the anæmia described, that it was difficult not to suspect the existence of something common to both.—*Rep. of South Lon. Med. Soc., in Med. Gaz. March* 3, 1849.

145.—*Diagnosis and Treatment of Biliary Calculi.* By M. Martin-Solon.—A man was admitted into the wards of the Hotel Dieu at Paris, who had a year before admission been subject to attacks of violent spasmodic pain in the abdomen, accompanied occasionally by jaundice. These had afterwards become supplanted by fixed uneasiness in the epigastrium and right hypochondrium, with painful digestion, which symptoms continued on admission. The pain was always much increased by movements of the body. On pressing with some force over the region of the gall-bladder, which was slightly tumid, M. Martin-Solon discovered a dull crepitation, not unlike that which is found in the hepatic region when superficial hydatids are present, but quite limited in extent. Calculi had not at this time been found, nor had they been sought for in the stools. To the sign above mentioned, M. Solon attributed very considerable importance.

The prescription was a mixture of oil of turpentine and ether, in the proportion of two parts of the former to one of the latter. Of this mixture the patient took 15 grs. (ʒij by weight), on two successive days, after which, he passed by stool without any pain, five calculi, the surfaces of which were from a quarter to half an inch in diameter.

This method of treatment was proposed in the end of last century by Durande, a physician of Dijon, and after having for some time a great reputation, was again forgotten. M. Martin-Solon inclines to believe it efficacious, and ascribes the neglect into which it has fallen to its not having been pursued with the constancy which is usually necessary, the medicine being generally repugnant to the taste of the patient. In obstinate cases Durande continued the treatment for about fifty days, till the patient had taken 500 grammes (16 ozs.), of the mixture.—*Gaz. des Hôp.* March 10, 1849.

146.—*On Scapulalgia.* By M. Malgaigne.—This is an affection of the shoulder, resembling rheumatism in some respects, but differing from it in all essential particulars, and which, although not of very unfrequent occurrence, does not seem to have been noticed as a peculiar affection of this joint. In October last, a surveyor, aged seventeen, was suddenly seized in the country with a violent pain in the left shoulder; it continued with such intensity for forty-eight hours that the patient had not an instant of repose. The third day he was taken into an hospital in Paris when some relief was obtained by cupping; however, as there appeared no further progress made in the cure, he was advised to go to St. Louis, where he could get sulphur baths, as he was considered to have a rheumatic tendency. He was taken into that hospital on the 6th November, and presented the following symptoms:—The arm was close to the side, and the slightest attempt to move it produced the most intense suffering; the scapular region was but little swollen, and very little painful on pressure, except in one circumscribed spot, on which M. Malgaigne's attention was particularly fixed. On pressing with the finger upon the anterior part of the head of the humerus, the patient cried out with the pain in the part, and some accessory pains in its neighbourhood, particularly at the inferior angle of the deltoid muscle, but none in the elbow or other joints, which could give the idea of articular rheumatism. M. Malgaigne diagnosed a scapulalgia; that is to say, a pure and simple arthralgia of the shoulder, and for its treatment he fixed the arm immoveably with the bandage he employs in the treatment of fractured clavicle. The result was immediate. For the first time during seventeen days the patient slept.

From the 7th to the 17th, the relief continued uninterrupted; on the latter day the apparatus was removed, but moving the arm was found to be neither less painful nor difficult than at first. Although he passed tranquil nights, yet uninterrupted sleep was impossible, from his being obliged constantly to lie on the right shoulder; there was besides uneasiness of the biceps, and stiffness of the elbow of the affected side, from the long-continued immobility of the limb. M. Malgaigne was of opinion that liniments, vapour baths, sulphur baths, blisters, moxas, cauteries, &c., were worse than useless. On removing the bandages, he pressed on the painful spot at the anterior part of the head of the humerus (and which he considers indicates the acute or inflammatory stage of the affection), but it no longer gave pain on pressure, and he thence concluded that all the morbid phenomena still observed were exclusively owing to retraction of the ligamentous structures, and that the treatment by antiphlogistics was no longer necessary; he proceeded to extend the forearm, which required some exertion from its having been so long flexed. Gradually he ventured on giving the scapulo-humeral joint itself the motions of rotation and abduction without giving the patient any pain, and the patient was soon able to move it himself, and with so little pain or difficulty, that on the 18th he was able to take his cap off his head with his left hand, and in a few days more the cure might be said to be complete, except for some weakness that existed in the deltoid, which had been paralyzed from the commencement, but which M. Malgaigne does not consider an essential character of the disease, but only the result of long-continued inactivity, and which will disappear by use.

On the 28th of November, a few days after the preceding patient had been discharged, a jeweller, aged forty-five, was admitted. This woman never had rheumatism or neuralgia; three days before, while at work, she was suddenly seized with a severe pain in her right shoulder, followed by shiverings and nervous agitation during the whole night. An apothecary had given her a liniment and an anodyne draught, which gave her no relief. She remained without sleep, or the power to move her arm, for three days; the night of the day she was taken into hospital she also passed without sleep. On the 29th, M. Malgaigne saw her; there was the painful spot at the place of election, and slight pain all round the joint, but as usual without fever. The apparatus for fractured clavicle and a poultice were applied, but the former was badly fixed, and the patient did not sleep. On the 30th, the bandage was reapplied, and properly, and an excellent night's rest followed; on the 2d of December the pain had greatly diminished, and the patient had continued to rest well at night; on the 4th, there was pain on pressing over the anterior part of the head of the humerus. The bandage was now removed, and the forearm, which had been kept flexed, was extended. On the 5th, the motions of abduction and rotation were given to the limb; and by the 8th, she was herself able to use her arm perfectly, and was discharged. In this case there had been no paralysis of the deltoid muscle.—*Jour. de Méd.* and *Dub. Med. Press*, April 18.

147.—*On Asthma occurring in a Child.* By Dr TOTT.—A child, aged one and a half year, had been seized daily, at midday, for three months, with asthmatic paroxysms of difficulty of breathing, terminating in cough without expectoration. An intermittent fever prevailing in the vicinity, the author supposed that the disease might partake of its nature, and administered quinine with hyoscyamus, &c., as well as external derivatives; but without any avail. The *tinct. lobel. infl.* (fifteen drops every three hours) was then given in weak tea, and by the third day the paroxysms had become much diminished in intensity and duration, and in fourteen days no traces of the affection remained, the child continuing quite well when seen a year and a half afterwards.—*Neue Zeitschrift für Geburtskunde*, Band XXV. p. 197; *and Brit. and For. Med. Chir. Rev.*, April 1849.

148.—*On the Inflammation of the Umbilical Cord in Infants.* By M. MILDNER of Prague.—The separation of the remains of the cord after birth takes place either by a dry or moist gangrene. In both cases, a certain degree of inflammatory action accompanies the separation. In the first form, which is the most common in healthy and vigorous children, the inflammation is of limited extent and suppurative. In the latter there is left after separation of the dead portion, an ulcerated depression in which a conical projection shows the situation of the occluded vessels; and this ulceration may extend down to the peritoneum. In these cases, which almost always occur in the ill-nourished children of diseased mothers, and especially during epidemics of puerperal fever, inflammation of the umbilical vessels of the peritoneum, with purulent infection, are very

apt to occur. Purulent infection is denoted by the sudden accession of fever with pungent heat of skin, dry tongue, thirst, dyspnœa, tumultuous action of the heart, constipation, and general convulsions. The most certain sign, however, is the formation of metastatic abscesses, which, in infants, take place much more frequently in the skin and joints than in adults. The inflammation usually attacks several joints at once; it is in its consequences not dissimilar from simple inflammations, which, however, are rare in the joints of the infant, except as the consequence of injury, or strain during birth. Metastatic inflammations of internal organs differ little from those of the adult; lobular pneumonia (mostly with pleurisy), and purulent infiltration of the mediastinum with abscess of the thymus gland, are not uncommon. Hemorrhage from the umbilicus occasionally occurs in purulent infection. Convulsions occurred in 5 out of 48 cases of inflammation of the umbilical cord. In two cases they were due to universal purulent arachnitis, in one to an extravasation on the dura mater; in the others they were probably reflex. The convulsions were always general, but were strongly marked in the muscles of the face.—*Präger Vierteljahrschrift* Jahrgang V., Band II., and *Œster. Med. Wochenschrift*, 15th April 1848.

II.—PRACTICE OF SURGERY.

149.—*Ligature of the Left Subclavian Artery for Subclavian Aneurism; with a Remarkable Deviation of the Vessel and Consequent Change of its Relations.* By J. Mason Warren, M.D.—Dr Mason Warren relates the following case of ligature of the subclavian:—

Miss A., thirty years of age, of delicate constitution, had a congenital club-foot of the worst kind, and, in consequence, a double curvature of the spine. For the former of these she was treated eight or ten years since by Dr Brown at his infirmary, and the foot after the section of the tendons, followed by the appropriate treatment, was completely brought into its natural position, so that she was enabled to walk with ease, without the aid of any mechanical support. The curvature of the spine was submitted to a similar treatment with the same successful result.

At the request of Dr Brown, she consulted me in the early part of December 1847, for an aneurismal tumour situated just above the scapular end of the clavicle, about the size of a pigeon's egg, of which she gave the following history:—

Four months previous, while in attendance on a sick brother, she had occasion to draw the cork from a bottle, and felt at the moment a sudden crack at the point where the present tumour is situated. Her attention was not attracted to it at the moment, but a short time afterwards a small swelling, having a decided pulsation, was distinguished at that spot, which has gone on increasing until it has attained its present size. It had a powerful pulsation, and possessed the usual thrill characteristic of an aneurismal affection.

After having examined the tumour and learned its history, I endeavoured to discover the subclavian artery in its normal situation beneath the clavicle, at the point where it passes over the first rib. To my surprise no large vessel or any osseous protuberance answering to the tubercle of the first rib, usually taken as the guide to the artery in this position, could be found. Different parts of the neck were then explored, which finally led to the discovery of a large artery passing obliquely upwards, parallel to, and about an inch removed from, the external border of the trapezius muscle. Compression being made at this point, the pulsations of the tumour ceased, as well as the pulse at the wrist. There was no question, therefore, in my mind that this was the subclavian artery, but it was more difficult to determine this remarkable anomaly.

I now sought for the first rib, and to my surprise discovered both the first and a part of the second rib passing obliquely across the neck above the clavicle. The insertion of the scalenus anticus muscle into the first rib, was at length distinguished; the tubercle, however, was not sufficiently developed to be manifest to the touch. The whole osseous system of the chest in this case seemed to have undergone a partial displacement. The spine and ribs attached had been, as it were, moved upwards; while the sternum was carried in an opposite direction.

Making a strong compression on the vessel above the tumour, the arm became extremely painful, with a sensation of numbness, and on a subsequent and more careful examination the whole brachial plexus of nerves could be discriminated, in immediate contact with the artery.

As the tumour was rapidly increasing, it was evident that, considering its situa-

tion and the great danger of delay, no time was to be lost, if any surgical operation was to be resorted to for its relief.

The operation was performed on Dec. 24th, in the presence of Dr J. C. Warren, Dr Brown, Dr Buckminster Brown, Dr Bartlett of Roxbury, Dr Morland, and Dr Slade.

An incision, about two inches long, was made, extending from near the outer and upper edge of the sterno-mastoid muscle downwards, in the direction of the scapulo-clavicular articulation, and an inch from the edge of the trapezius muscle, the pulsations of the vessel being the principal guide, as the other anatomical marks were wanting. This incision divided the skin and superficial fascia; a second cut opened one of the branches of an artery given off from the thyroid axis, which was tied. A nervous band of some size was now encountered, and at its side, and directly over the artery, a large vein, apparently the external jugular. The vein was carried to the upper part of the wound with a silver hook, and the nerve to the lower; the dragging upon the latter caused a disagreeable and somewhat painful sensation in the arm.

The sheath of the vessel was next opened, the cellular membrane around it cleared away, and the aneurism needle, unarmed, passed from below upwards, on account of the difficulty of introducing it in the contrary direction from the interference of the scalenus anticus, which had its insertion just below. The needle at once encountered and raised the lower nerve of the brachial plexus, which was in the most intimate contact with the artery. By depressing the handle, and urging the point forwards, with careful manipulation the eye of the needle was without difficulty brought out between these two organs. The instrument was now threaded with the ligature and withdrawn. Careful exploration being made to ascertain if any nerve was included in the ligature, the painful sensations in the arm caused by drawing the ligature downwards at first led to the supposition that this might be the case. But when the same traction was made directly upwards, no pain was felt; the former sensations being produced by the dragging on the cervical portion of the brachial plexus, owing to their connection with the vessel.

The ligature was now tied, and the wound dressed. The pulsations in the aneurismal sac, as well as those of the radial artery at the wrist, at once ceased, and all appearance of the tumour vanished. The patient's arm and hand were a little cold directly after the operation, but being rolled in flannel they soon regained their natural temperature. The patient went on favourably, but the ligature did not separate till the 30th of March, 96 days after the operation. When Dr Warren saw her last, on the 14th September, she was quite well, and the tumour had almost entirely disappeared.—*American Journal of Med. Sciences*, January 1849.

150.—*Means of rendering the Ulnar Artery more accessible.* By M. MALGAIGNE.—The means suggested by M. Malgaigne, the efficacy of which the reader may at once test upon his own person, will be found of great utility, when circumstances prevent our feeling the pulse at the radial artery, or when it is desired to take up the ulnar. He thus describes it:—"I have several times had occasion to place a ligature around the ulnar artery for lesions of this vessel; and when the cellular tissue is gorged with effused blood, and it is necessary to seek it at a considerable depth, I do not hesitate to term it a very difficult operation. Perhaps the means I am about to state will assist in removing the principal difficulty, which especially depends upon the depth of the artery. If the fingers and hand are turned forcibly backwards upon the dorsal aspect of the forearm, the relations of the ulnar artery become surprisingly changed. The deep-seated muscles upon which it lies are forcibly raised, and cause a sensible projection under the skin. The tendon of the flexor carpi ulnaris, on the contrary, retreats inwards and backwards; so that the artery, which, in the natural position of parts is partly concealed by it, is now forced to a much more anterior plane, and lies four or five millimetres on the inner edge of the tendon. In many subjects it becomes more superficial than the radial, and it may be seen raising the skin at each pulsation.

"In traumatic lesions of the vessel, the same position brings the wounded extremity of the vessel towards the surface, and enables us to seize it; and in any case, when we wish to pass a ligature around the vessel, there will be no longer occasion to denude and draw away the tendon of the flexor."—*Revue Médico-Chirurgicale; as quoted in the Brit. and For. Medico-Chirurgical Rev.*, July 1848, p. 265.

151.—*High Operation of Lithotomy—Continuous Irrigations of the Bladder with Tepid Water.* By M. AMUSSAT.—M. Amussat, after performing the high operation in the usual manner, placed a large curved gum elastic tube into the bladder through the wound; this tube was retained

in the wound by means of several threads from each side, which were fixed with collodion to the integuments of the abdomen: he then introduced a small gum elastic catheter into the bladder through the large tube, this small catheter was connected externally with a very long tube, furnished with a stop-cock and receiver filled with tepid water. By means of this apparatus a continuous stream of tepid water was directed into the bladder, mixing with and diluting the urine, and which was received into a vessel placed between the thighs of the patient, the genital organs being protected by means of oiled silk. The Parisian editor remarks, "Thanks to these means (the irrigations) the urine caused not the slightest irritation, and the inflammation consequent on the operation was of the most moderate kind. There was no urinous smell about the bed or chamber of the patient, as used to be the case before M. Amussat employed this plan of irrigation."—*L'Union Méd.*, Dec. 28, 1848.

152.—*Slight Catarrhal Cystitis—Hæmaturia, Perforation of Bladder and Rectum—Recovery.* By Dr A. Berton.—Dr A. Berton relates the case of a merchant, a strong, healthy man, about forty-eight years of age, married, and leading an active, sober, and regular life, who applied to him, suffering from the usual symptoms of vesical catarrh, such as frequent desire to pass water, and the urine passed becoming thick on cooling. After a short time the deposit instead of being merely cloudy, became glairy, like the white of egg; but all this was unattended by any febrile symptoms, or other appreciable derangement of the general health.

At the end of a fortnight, and immediately after having had sexual intercourse, the urine became bloody, and continued in that state for a period of twenty days. At which time (although still without any sensible derangement of his health) he passed about two litres of fluid daily, composed nearly of equal parts of blood and urine; there was no excessive thirst, and the quantity of drink taken was nearly equivalent to the quantity of urine passed.

All kinds of hemostatics, blood-letting, counter-irritation, &c., failed to produce the slightest good effect during the whole of this time; shortly afterwards the urine, without ceasing to be bloody, became of a darker colour and more muddy, and at the same time began to exhale a marked sulphuro-ammoniacal smell. On exploring the bladder with a silver sound, and when introducing gum catheters for the purpose of injecting first astringents, and afterwards detersive and antiseptic lotions, air frequently escaped with noise; and subsequently the sulphuretted hydrogen odour, and the mixture of particles of feculent matter, left no doubt as to the existence of a communication between the bladder and the rectum. The patient was always rather constipated, and required the frequent use of lavements and gentle laxations; the principal remedial measures consisted of one application of the nitrate of silver upon the mucous membrane of the inferior fundus and posterior part of the bladder by means of an armed bougie, and the exhibition of the iodide of potassium and of the proto-ioduret of mercury internally.

The urine became gradually less bloody, but before completely losing its red colour and fetid smell, which it retained for nearly a fortnight, the patient found one morning in the night-stool two irregular fragments of a musculo-mucous tissue, about four or five millimetres in size, evidently the detritus of the bladder. Twenty days after all sensible traces of blood had disappeared from the urine, it only deposited a very slight cloud of mucus on cooling, and at the beginning of January, about two months from the time the patient consulted Dr Berton, the urine passed was perfectly limpid and in every respect natural, and the patient was quite cured.—*Gaz. des Hôp.*, Jan. 13, 1849.

153.—*Fracture of the Left Clavicle.* By M. Jobert (de Lamballe).—In May last a young man, rather above middle height, of robust constitution, came to the hospital of Saint Louis, complaining of not being able to use his left arm. His usual occupation was unloading vessels on the banks of the Seine; he stated that eight days previously whilst so engaged on board a vessel, having lost his footing, he fell suddenly forwards, and rather to the side; the shock was chiefly borne on the point of the left shoulder. He was, however, able to continue his work without much pain, and it was not till eight days after, on trying to raise a very heavy load to his right shoulder, that he felt a sudden severe pain at the top of the left shoulder, and his arm fell by his side. From this moment the limb was useless, or at least voluntary movement was reduced to a simple motion in the antero-posterior direction; all movements by another person caused excessive pain at the top of the shoulder. On examination, the clavicle was found fractured obliquely at the union of the external with the two internal thirds, the ordinary symptoms of this kind

of fracture were present. Ordered rest in bed, lying on his back, and the simple bandage to support the arm. He made a good recovery.

M. Jobert says, "this circumstance is remarkable in the annals of science. As far as we know, there are no examples in which the ordinary symptoms of fracture of the clavicle did not manifest themselves till eight days after a fall, the only cause to which the existing injury could be referred." What conclusion must be drawn from this observation? Was the fracture incomplete at first? Were the two fragments kept in relation by an uninjured portion of bone then displaced, and made to ride one on the other by the influence of muscular action which completed the separation during a violent effort? M. Jobert says, "I dare not take the responsibility of this explanation, although it appears to me the only one admissible under such circumstances. Perhaps subsequent facts may clear up what is in this case obscure, and give an explanation of a circumstance at least singular."—*Gaz. des Hôp.*, Dec. 19, 1848.

154.—*Case of Severe Laceration of Scalp, with Remarkable Reproduction of the Tissue.* By Mr FLEMING.—On the morning of the 8th day of June last, Jean Jones, aged fourteen years, a brusher in Henry Houldsworth and Sons' Spinning-Mill, Cheapside Street, Anderston, came under my care. The following were the circumstances of her case:—

While engaged in brushing beneath the inner end of a mule frame, in a kind of half-sleepy state, she had inadvertently allowed her hair to come in contact with a small revolving horizontal shaft, which, in pulling round the hair, carried along with it about *thirty-five square inches* of the scalp, leaving the upper, front, back, and lateral parts of the skull, completely exposed to that extent, the thin transparent covering of the pericranium being all that was left. On reaching the mill, I found her in a weakly, half faintish state, sitting upon a chair, supported by her friends. She had lost but little blood, but the left temporal artery soon began to bleed so freely, as to require a ligature. The wound was dressed with the common adhesive plaster, covered with a cloth moistened with cold water, and the patient removed home to her bed, where she spent the first day and night in a much more comfortable state than could have been expected under the circumstances. On the second day, I found her in a remarkably comfortable state, compared to what I expected to find; and was not a little surprised at her informing me that, at the time of the accident she did not experience the slightest pain, nor was in the least aware of her misfortune, until she applied her hand to her head!

June 13.—Going on favourably; the whole surface of the wound studded over with healthy granulations, with the exception of a dark-coloured spot having a sloughy appearance, of about two inches in diameter in the centre of the wound.

June 17.—The whole of the dark spot sloughed off to-day, leaving about four square inches of the skull completely deprived of its pericranium—a superficial slough had separated from it on the 15th. Continued going on favourably, the wound diminishing in size very much; on the 27th it measured only *twenty-five* square inches. The denuded bone is dotted over with healthy granulations.

July 7.—Still going on favourably. Wound measures only *nineteen* square inches. On the 22d it measured only *twelve* square inches; the denuded bone is quite covered with healthy granulations.

July 30.—Wound diminished to *nine* square inches.

August 7.—The wound to-day measures only *seven* square inches, being only one-fifth of its original size two months since. The whole of the *new skin*, with the exception of about half an inch surrounding the wound, is as completely covered with *hair* as any other part of the *uninjured scalp*. The patient continues to be doing well, and is actually gaining flesh, and in a very few weeks will have completely recovered from the accident.—*Report of Inspectors of Factories*, p. 148.

155.—*Phymosis.* M. VIDAL.—For the cure of phymosis, M. Vidal prefers the operation of circumcision to that of making a simple incision through the prepuce, on account of the deformity and inconvenience to which the latter gives rise. He performs the operation in the following manner:—A line is marked with ink upon the skin of the prepuce in the direction in which the sutures are to be placed. The skin having been neither drawn forwards nor backwards, that part in front of the marked line is laid hold of, with a pair of broad pincers, and four threads are then passed through the prepuce with a fine needle. The part held by the instrument is then removed by means of a bistoury or strong scissors. The threads are now divided in the middle, and the eight sutures, thus obtained, are immediately tied so as to keep the cut edges of the skin and mucous membrane in accu-

rate contact. When the operation is performed in this manner, M. Vidal finds that there is seldom any hemorrhage, and the wound almost always unites by the first intention, so that the stitches may generally be removed after forty-eight hours.—*Gazette des Hôpitaux*, December 16, 1848.

156.—*Excision of the Head of the Femur.* By Mr H. Smith.—Mr Smith gives a detailed account of a case of spontaneous luxation of the femur, the result of disease of the hip-joint, in which he performed the operation of excision of the head of that bone, having, after careful examination and consultation with Mr Ferguson and several other surgeons, formed the opinion, that the disease was entirely confined to the femur. Little difficulty seems to have been encountered in the performance of the operation, owing to the superficial position of the bone upon the dorsum ilii. The case went on favourably for some time, but unsatisfactory symptoms afterwards appeared, the wound continued to discharge unhealthy matter; the patient gradually became more and more exhausted, and died about three months and a half after the operation. On examination after death, extensive disease was found to exist, both in the ilium and in the lumbar vertebræ.—*Lancet*, December 1848.

[This case affords an example of the extreme difficulty of determining to what extent the bones are affected in hip-disease; the absence of any symptoms indicating disease of the pelvis or vertebræ, having very naturally led to the conclusion, that the head of the femur was alone affected. We are only aware of three cases being on record, in which a similar operation has been performed with success; one by White in 1818; another by Professor Textor of Wurzburg in 1845; and the third by Ferguson in the same year.]

157.—*Case of Long Existing Curvature of the Spine.* By Samuel Hare, M.R.C.S.—The patient, a young woman, first came under the care of Mr Hare in the middle of October 1847, being then sixteen years of age. She had been a delicate child, and had suffered severely from the hooping-cough and measles; but it was not till her seventh year that it was observed she bent to the right side, and that the right shoulder was considerably enlarged. From that period the disease and the consequent debility had gone on increasing. The head was now fallen considerably forward and to the left side, and the chin approached very near the chest. The whole chest was very much contracted in front; the sternum being projecting, and the ribs excurvated on the right side. The dorsal portion of the spine was curved excessively to the right, and was likewise very much excurvated, so that the spine and the ribs formed a large projection backwards and upwards; this projecting mass was marked by two ridges nearly parallel to each other, the one being formed by the spinous processes of the vertebræ, and the other by the ribs of the right side which were bent upon themselves at an acute angle about an inch and a half from their spinal extremities. Three of the vertebræ (the second, third, and fourth dorsal), instead of being placed perpendicularly, formed an almost horizontal line; and the left hip projected exceedingly. She suffered from dyspnœa and palpitation, which had been becoming much worse for some years.

Thinking, from there being some mobility in the deformed part, that anchylosis had only partially taken place, Mr Hare determined on making an attempt to rectify the distortion. The patient was accordingly directed to keep the horizontal posture for several hours each day; frictions and firm pressure with the hand being occasionally employed. "Afterwards," says Mr Hare, "I applied firmer and more constant pressure, by means of a contrivance which I now generally employ, and which consists of a pad placed at the end of a spring, the power of which can be exactly regulated so as to suit any individual case, by raising or depressing at the side of the plain upon which the patient reclines, the upright piece to which the spring is fixed at a right angle. This is used at first for a short time, and afterwards for a longer period, as may be required, while the patient is in a prone position, and is applied in such a direction as gradually to press those portions of the spine which still retain their mobility towards their proper position. A constant but very gentle extension of the spine is likewise maintained during the time that the patient remains in the recumbent position, by the application of moderate weights to the head and extremities."

Under the above treatment the slight elasticity or mobility of the deformed part manifestly increased. This Mr Hare considers to be usually one of the earliest signs of amendment; and in this case, it was soon followed by an improvement in the appearance of the deformity. When

she had been nearly eleven months under this treatment, she was in the following improved condition. Her head was quite erect, and did not incline to the left side, and the neck was longer and well formed; the chest was more expanded, and its two lateral halves were nearly symmetrical, while the sternum did not project more than in an ordinarily formed chest. The spinal column was much more perpendicular than it had been; scarcely any thing of the lumbar curve remained, and the upper one was much improved. With this alteration in her figure, her health and strength had increased, and she was quite free from dyspnœa, being able to expire sixty-nine cubic inches of air in place of thirty, as was the case when she first came under treatment. — *London Medical Gazette*, October 1848.

158.—*Observations on a Rare kind of Aneurism of a Branch of the Femoral Artery.* By Mr CANTON.—The subject of these observations, a man about fifty-six years of age, on his admission into the hospital was of a cachectic appearance, and had a tumour situated on the upper part of the left thigh; it was of the size of a large walnut, hard, moveable, circumscribed, solid, indolent, and not pulsating. The tumour, he said, had come on within two or three days in consequence of a blow he had received, but in interrogating him more closely, it came out that he had struck himself against the corner of a desk five or six months previous. Three weeks after this examination, the tumour had reached the size of a hen's egg; it was situated on the inferior part of Scarpa's triangle, was always solid, and no bruit or pulsation heard in it. Doubting its nature, the author made a slight exploring puncture at a point which had seemed to be softening for some days previously; a very small quantity of serous fluid escaped, quickly followed by a jet of blood, in colour between arterial and venous. The mode of operating was thus indicated, and it was performed by dissecting carefully through the superimposed texture. When the tumour was laid bare, it was seen that it was united to the femoral artery by a very short branch; it was necessary to cut through the sartorius muscle to isolate completely, and then it was evident it was the muscular branch to that muscle that was the seat of the aneurism. A ligature was placed on a level with the origin of the branch from the femoral artery, and the tumour removed by scissors; it was found composed of concentrated fibrous laminæ, so arranged as completely to close up the orifice of communication with the femoral artery, thus accounting for the absence of all pulsation or abnormal sound in the tumour.—*Lancet*, March 1848.

159.— *Observations on Strangulated Congenital Hernia, with Internal Strangulation cured by Operation.* By Dr H. HANCOCK, Charing Cross.—There are numerous examples of portions of small intestine strangulated by a fold of the peritoneum, and the individuals labouring under it, perishing with all the symptoms of strangulated hernia without being able to perceive any swelling externally to indicate the nature of the disease. Along with these truly embarrassing cases, there are others which are no less embarrassing, for along with strangulated hernia, there may be present an internal strangulation, which, if not attended to, would cause fatal results. The following is a remarkable instance: A man fifty-seven years of age, had from birth been labouring under an inguinal hernia of the right side, which seemed to have caused very little annoyance, as he only commenced wearing a truss when twenty years old. On the 4th of September last, he was going to take a bath, and had consequently taken off his truss, and forgot to resume it. Immediately he felt pain at the position of the tumour, and all his efforts to reduce it, and also those of a surgeon who was sent for, proved unavailing. When Dr Hancock came, he found the patient very feeble, pulse slow and intermittent, the abdomen tense, the hernial tumour the size of a large orange, and very tense, and unable to bear the slightest touch. The integuments were already inflamed, and the operation was immediately performed. On opening the sac, a portion of intestine was seen very much inflamed, there was a tight constriction in the external ring, as also at the neck of the sac, both of which were freely divided; the reduction was then expected to have been easily performed, but it was impossible. As soon as the intestine was pressed within the abdomen, and the fingers withdrawn, it again came down; there existed some obstacle, some diverticulum of new formation preventing reduction. Accordingly, drawing down the intestine, and at the same time passing the finger into the abdomen, Dr H. found the intestine firmly constricted by a rounded band. The division of this band was rendered difficult by the intestine constantly moving in front of the instrument, but its division was effected, and immediately the intestine was reduced, and the symptoms relieved, and the cure completed.—*Lancet*, March 1848.

III.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

160.—*Of Prolapsus of the Funis during Labour.* By Dr Hoffman.—Dr Hoffman does not admit the validity of the explanation of this occurrence, which refers it to a disproportionately large pelvis or small head. If this were the case, the accident would be met with far more frequently than it is, and especially during premature labours. He believes it to be dependent upon an irregular contraction of the uterus, whereby the lower segment of the organ becomes unduly relaxed. He has never met with it in cases in which the pains have manifested their normal activity, but only in those in which they have assumed a spasmodic character. Upon these grounds he declares the mere reposition of the funis, unless the character of the pains can also be changed, to be of no avail; for the lower segment of the uterus not being applied to the head in these irregular pains, as it should be, the prolapsus is sure again to recur.

Moreover, the reposition of the funis is opposed by a general law which, however easily demonstrable, the author does not recollect to have ever seen stated. It is that *when during the progress of labour any portion of the ovum has quitted the cavity of the uterus, it can never be replaced.* As soon as any of the liquor amnii is discharged, the walls of the uterus become closely applied to the contour of the child, and the size of its cavity *pro tanto* diminished. Just in proportion as the parts of the child quit this cavity does its size continue diminishing, and neither a spontaneous or artificial return of these is possible. So it is with the funis; the cavity of the uterus having diminished in size since its descent, there remains no longer room for it. The general conclusion to be drawn is, that when the funis is prolapsed, to save the child, we must resort to turning, and place no reliance in the various instruments which have been contrived for its replacement.—*Zeitschrift für Geburtskunde*, Band xxv., p. 45; *and Brit. and For. Med. Chir. Rev.*, April 1849.

161.—*Quintuple Birth.* By James Russell, M.R.C.S.—On Sunday, January 14th, I was sent for to see Mrs W——, a healthy, well-formed woman, aged twenty-four, the wife of a shoemaker, living in Rochester Terrace, Rochester Row, supposed to have been with child between four and five months. She stated that, having occasion to go from home, she had proceeded but a short distance, when she was attacked with what appeared to be the pains of labour, and returned immediately; almost as soon as she entered the house, the membranes ruptured, and before I could get to see her, she had brought forth four fœtuses, and as I entered the room, another was born, making a total of five well-formed male fœtuses. The largest was six inches, and the smallest five inches long; of course they were all dead. There was not any hemorrhage, and each fœtus was expelled by one separate pain. The uterus now contracted so firmly that it was impossible I could get my finger within the os, for the purpose of removing the placenta; I consequently remained with her, and after an hour and a half, no other pain manifesting itself, I desired that she might take a draught, with infusion of roses, and a drachm of ergot of rye. This, in about four hours, was followed by a solitary pain, and the placenta came away. Upon examination, it was found to be of the ordinary size for the period, and had attached to it five umbilical cords, arranged in a circular form around the centre.

The case I have just described is interesting, both as to the number of pains, and the arrangement of the umbilical cords. I am aware there are cases on record where more than the number of fœtuses I have mentioned have been expelled at one birth, but I am in doubt whether in those cases the pains were limited to one for each fœtus, and whether there was one or more placentæ. The subject of this freak of nature has one child living, two years and a half old, and has had two miscarriages. She is progressing favourably, and has never had a bad symptom.—*Lancet*, Feb. 3, 1849.

162.—*Case of Hydrometra occurring in an Unimpregnated Uterus.* By Dr Grandidier. This case occurred in the person of D. F., aged twenty-one, unmarried, and of a scrofulous habit of body. In Nov. 1842 her menses, which had been very irregular, were arrested, and the belly began to swell, so that in twelve weeks it resembled that of a pregnant woman in her last months. The distension was as equable as in ascites, but a fluctuation was only very obscurely felt. The extremities were swollen, respiration hurried, and the urine small. Examination, *per vaginam*, having proved the groundlessness of the charge of pregnancy, she was treated by various hydragogues, &c., as for ordinary ascites; and it was not until paracentesis had been in vain attempted that a hydrometra was

diagnosed. Ten grains of *secale cornutum* were now ordered every two hours, until uterine action was developed. Great pain and anguish were thus produced, which continued for twenty-four hours, when (120 grains of secale having been taken) a small plug of mucus was expelled from the vagina, and followed by the uninterrupted flow of six *maas* (sixty-four oz.) of a clear watery fluid. The patient's sufferings were much relieved; her general condition improved; and while taking Stahl's pills her menses returned. Still her belly never resumed completely its normal size, and at intervals, varying from one to three weeks, there were gradually expelled other eighteen maas of the same fluid. In June 1843 she repaired to the sulphureous waters at Neundorf. The belly being as large as in advanced pregnancy, and the menses again disappearing, ten maas of fluid were discharged from the vagina. In August, seven maas, and in September, thirty-nine, were discharged; but after this period, the mineral waters and other means employed having removed the deranged condition of the digestive organs under which she had long laboured, and the discharge of water, *per vaginam*, which had probably accumulated during the stasis of the venous abdominal circulation, entirely ceased.—*Neue Zeitschrift für Geburtskunde*, Band xxiv., pp. 261-8; *and Brit. and For. Med. Chir. Rev.*, April 1849.

IV.—DIETETICS, HYGIENE, AND MEDICAL POLICE.

163.—*Bloody Rain on Articles of Food.*—Under the influence of circumstances, of which it would be difficult, if not impossible, to form at present a precise idea, there have occasionally been observed on bread and articles of food of various natures, spots of a bright red accurately resembling drops of blood. It is easy to conceive the terror which such a phenomenon would inspire, in times when there was no science to dispel the mystery which seemed to shroud it. During the seige of Tyre, Alexander himself was terrified by this appearance of blood-stains on the bread of the soldiers. At a more modern epoch, in 1510, similar spots having shown themselves on consecrated wafers, thirty unhappy Jews were accused of having caused their appearance by sorcery, and expiated their imputed sacrilege on the scaffold. Almost at our day, in 1819, these same red spots put into commotion the whole of Padua and its environs. In the beginning of the month of August of that year, a farmer of Legnaro, named Pilarello, was horror-struck on beholding drops of blood on a mess of maize pottage cooked the previous evening. His horror was redoubled, when several days after he saw similar spots on all his food, on fresh bread, rice, veal, fish, boiled and roasted fowls. The *curé* was called to banish the evil spirit, the presumed author of this terrible phenomenon, but all his spiritual efforts were unavailing, and it became evident to all the district, that the unhappy Pilarello was under the wrath of heaven. The rush of curiosity mongers to Legnaro becoming daily greater, and superstition having seized on this fact to draw from it many strange conclusions, it was thought proper to appoint a commission to enquire into the nature and causes of this phenomenon. M. Lette was entrusted with the investigation. On examining the miraculous blood spots under the microscope, he saw that they were formed of myriads of little bodies which he conceived to be microscopic fungi, and to which he gave the name *Zao-gàlactina imetropha*. He even succeeded in propagating these little organisms, and gave a detailed history of them in an able memoir which was published in Venice in 1824.

In the course of 1848, the same phenomenon manifested itself at Berlin, and engaged the attention of Ehrenberg. This able micrographist has examined the red spots, and believes that he has recognised in them, not a microscopic fungus as Lette supposed, but an animalcule of the lowest class in the zoological scale, a monad, to which he has given the name of *Monas prodigiosa*, from its extreme minuteness. This little creature presents itself under the form of corpuscles, nearly round, about a 8000dth to a 3000dth of a line in size, which appear transparent when examined separately, but which, when viewed in mass, seem to be blood-red. They are terminated by a little rostral beak, in length equal to about the half of the entire body.

M. Ehrenberg has calculated, that to occupy the space of a cubic inch, would require from 46,656,000,000,000 to 884,736,000,000,000 of these monads [!]—*L'Union Méd.*, 1849, No. 26.

164.—*Chicory Coffee.*—The admixture of chicory with coffee, has of late been engaging the attention of the *Times* newspaper, and of its medical namesake. From

an article in the latter journal, we learn some curious facts, drawn from a memorial by Mr Cook, at present lying before the Lords of the Treasury and Board of Trade. It appears that when chicory was first imported to Great Britain, a duty was levied on it equal to that on coffee. As, however, it could be, and was, grown easily at home, it escaped the duty, and subsequently in 1840, was patronised by a treasury order "authorising the excise for the future, not to object to grocers selling chicory, or *mixing it with coffee*." The effect of this has been—"what might have been expected, for while home grown kiln dried chicory can be delivered at 2½d. per lb. to the wholesale dealers (retailed at 8d. per lb.) the average price of duty paid on coffee is from 7d. to 9½d. per lb. Accordingly, even respectable grocers add at least 2 ounces of chicory to 14 ounces of coffee, *while others make the mixture half and half.* The most experienced officers of the excise estimate the average proportion of chicory to what is sold in London as coffee, at one-third; in the manufacturing towns in the country, it is said to be fully one-half."

It further appears that the chicory itself has been adulterated to such an extent, that the wholesale dealers were induced to take into their own hand the manufacture of the chicory which they sell, purchasing themselves the root, and kiln-drying it on their own premises.

On the effects of this practice on the commercial interests of the country, we do not care to enter. We concur with the *Medical Times* in his statements as to its deteriorating effect on the properties of the coffee itself. This adulterated stuff cannot possess the effects of coffee as an excitant of the nervous system, as an antispasmodic in asthma, and a stimulant in narcotic poisoning. It is true the qualities of the chicory are chiefly negative, it has no intrinsically bad qualities, but "even if chicory were proved to be the most wholesome and agreeable article in existence, it would still seem hard that it should be in the power of any dealer *legally* to foist it upon those who do not ask for chicory, but for coffee, and who part with their money in the full belief that coffee has been served to them."—*Med. Times*, March 3, 1849.

165.—*Bread for Diabetic Patients.* By Dr Percy.—It appears to be now generally admitted, that in the treatment of diabetes mellitus, amylaceous matter should in a greater or less degree be excluded from the diet. But, as is well known, under such restriction of food the diabetic patient soon becomes weary of the ordinary kinds of azotized matter, as beef, mutton, &c. Hence various substitutes for common bread have been proposed. Some years ago, Mr Morson, of Southampton Row, London, prepared at Dr P.'s request, specimens of bread containing gluten in various proportions. However, the result was not satisfactory; it was only relished by the patient when it contained a considerable quantity of starch; and when the proportion of gluten was increased beyond a certain amount, it became so tough and tenacious, as to be very difficult of mastication. Dr P. has also made trial of gluten bread, brought from Paris by Mr Morson, but with no better success. Recently Dr Prout has published a receipt for a kind of bread devised by his patient the late Rev. J. Rigg (*vide* Stomach and Renal Diseases, 5th edition, p. 44); and this is probably the best substitute for common bread which has hitherto been proposed. Some time ago Mr Charles F. Palmer of Birmingham prepared for Dr Percy, specimens of bread from Dr Prout's receipt; but patients to whom it was given complained of the difficulty in swallowing it, owing to the large quantity of bran which it contained. Mr Palmer then suggested the matter of rasped potatoes, left after the complete removal of the starch by washing, to replace the bran. He carried the suggestion into practice, and produced a kind of bread which well deserves the attention of the profession. It has been extensively employed in the General Hospital of Birmingham, and also by several private practitioners, with decided advantage. In composition it may be considered as Mr Rigg's bread, in which the bran has been replaced by the residual matter of the potatoe above mentioned. And in the fact of its being rendered light and porous by hydrochloric acid and carbonate of soda, precisely as in the preparation of Dodson's unfermented bread, it is, as must be obvious, an expensive article; but with many diabetic patients this will not be an object of consideration. It is improved in taste by being slightly toasted and eaten warm. The following is Mr Palmer's receipt:—

Take the ligneous matter of 16 lbs. of potatoes washed free from starch, ¾ of a pound of mutton suet, ½ a pound of fresh butter, 12 eggs, ½ an ounce of carbonate of soda, and 2 ounces of dilute hydrochloric acid. This quantity to be divided into eight cakes, and in a quick oven baked until nicely browned. At first gum-arabic in sensible quantity was also introduced into this bread, on the ground of the as-

sertion of Professor Graham, that when that substance is taken by the diabetic patient, the proportion of sugar evolved from his system is not thereby increased, and that consequently it might probably supply matter for pulmonary oxidation. However, it was found that it rendered the bread tenacious and disagreeable ; so that its use was subsequently abandoned. This bread would probably be improved by the addition of a certain proportion of bran. Some gluten might also be added with advantage.—*Chem. Gaz.*, March 15, 1849.

166.—*Cleansing and Purifying of Feathers.*—The importance, in a sanitary point of view, which attaches to the purification of articles of bedding that have been long in use, and especially of those which have been used by persons suffering from contagious diseases, lends an interest to the following brief description of the different methods adopted by upholsterers for cleansing and purifying feathers :—

One system consists in washing the feathers, by which means they are cleansed from the lime, sand, &c., which are added to them to increase their weight—a fraud largely practised in Ireland, and with the usual effect of recoiling upon the culprits. This method is attended by the serious disadvantage, that the feathers are caked together in large lumps by the dirt and animal matter which is in them.

A second method consists in putting the feathers into an oven heated to a moderate temperature, and allowing them to get dry by degrees. They are afterwards put into canvass bags, and beaten with long poles. This is believed to be decidedly the best method which the upholsterers have of cleansing the feathers, as it is less destructive to the down than any other adopted by them.

But perhaps the best of the methods in common use is that practised in farm-houses. The oven, after being used for baking, is allowed to get moderately cool, when paper bags containing the feathers are put in, there to remain till the oven is cold. A portion of the animal matter is absorbed from the feathers by the paper bags, which accounts for the superior purity of farm-house beds.

Another method which we have had an opportunity of witnessing consists in first exposing the feathers, after the fragments of quill have been picked out, to the steam arising from a chemical solution, then spreading them on a floor to dry, and lastly, separating all the lighter adhering matters by mechanical means. In this way the feathers are completely purified, and all adhering matter removed, the feathers still retaining the elasticity on which their value depends. Beds so purified lose a considerable fraction of their weight, but gain in bulk, softness, and elasticity. This very efficient process is the invention of Mr Gilbert of Tyssen Place, Kingsland Road.—*Journ. of Public Health*, Oct. 1848.

[We had recently an opportunity of carefully inspecting Mr. Gilbert's process. The first trial was made on a lot of very inferior, dirty-looking feathers, such as would have been entirely rejected by some upholsterers. Their appearance, on being thrown out from the boiler, quite surprised us. They were clean and elastic, and had lost entirely the oily feeling they formerly had.

In another trial, a quantity of feathers, which appeared perfectly good and clean, had so much dust and oil removed from them that their weight was considerably diminished.

Mr G. has frequently obtained from a bed, considered "clean and pure," as much as 14 lbs. of dirt and unwholesome animal matter. The process does not occupy more than a few minutes.]

167.—*Hygienic Properties of Animal Charcoal.* By M. MOZIERE.—The removal of bad odours by charcoal is notorious, but it is not so generally known that it possesses the property of removing from waters the calcareous salts, and even the greater part of the saline matters which they contain. It is to this property, which was discovered by Payer in 1822, and which belongs exclusively to animal charcoal, that M. Mozière directs attention. It is well known that many waters are rendered unfit for the use both of man and animals, not merely by their excessive proportion of saline constituents, but by putrescent matters, and it is of vast importance to possess a means of easily removing both these sources of deterioration. M. Girardin, of Rouen, has found that the unpleasant saline or alkaline taste of waters may be corrected by throwing a few pounds of animal charcoal into the cisterns, and according to M. Mozière it is easy to effect the purification of calcareous waters by passing them through a very simple filter, constructed in the following manner :—

A barrel, set upright on one end, is divided into three compartments, by two horizontal diaphragms; the water to be filtered is poured into the upper compartment; the second compartment contains a layer

of animal charcoal between two layers of sand, the whole enclosed in a woollen cloth; the lower compartment receives the water as it filters through; and to enenable it to reabsorb the air which the charcoal has removed from it, holes are made in the sides of the upper part of the lower compartment, and the water is exposed to the air, by making it fall on a dish, shaped like a mushroom, fixed on the bottom of the barrel. At the bottom of the upper compartment, a contrivance, like the head of a watering pan, is placed to retain the solid matters which the water may contain. The water thus filtered is agreeable, and fit for drinking and cooking.—*Journ. de Chemie Médicale*, Feb. 1849.

[This is on the same principle as the patent filters in common use here. The diaphragms, we presume, are to be made of wood, pierced with gimlet holes. A moveable diaphragm of flannel, in the upper compartment, would answer for keeping back solid matters better than the author's "watering pan" (*arrosoir*), the exact application of which, as given by him, we do not understand. This would make a cheap filter for farms or villages supplied with water of bad quality.]

168.—*Proportion of Nicotine in Tobacco.* By M. Schlosing of Paris.—The author has found, in 100 parts of dry tobacco, the following proportions in the various kinds:—

Lot et Garonne	7·34
North [of France?] ...	6·58
Ille et Vilaine	6·29
Pas de Calais	4·94
Alsace	3·24
Virginia	6·87
Kentucky	6·09
Maryland	2·29
Havannah, less than ...	2·

The varieties containing most nicotine are most useful for making snuff. It appears, moreover, that in the preparation which the tobacco undergoes, more than two-thirds of the nicotine is lost by the fermentation of the leaves. Ammonia exists in snuff, in the form of a salt. Nicotine exists there as salt or subsalt. It is to the presence of these substances that we must ascribe the stimulating qualities of snuff.—*Gaz. des Hôp.*, No. 126.

[These results correspond in a great measure with a table given by Dr Thomson in his "Vegetable Chemistry," apparently from analyses made by a French chemist, though this is not stated.

According to Duflos, some snuffs are acid, or feebly alkaline. The latter contain ammonia. The former developed acetic, or purposely added hydrochloric acid. The acid snuffs are generally more or less mixed up with foreign matters, technically termed *sauce*. In some red oxide and cinnabar, in others orpiment, have been found.]

169.—*Effects of Sudden Changes of Temperature.*—It is well known that the Russians expose themselves, generally without any bad effects, to remarkable changes of temperature, passing, as they often do, from rooms heated to 100° Fahr. into the open air, where the thermometer is nearly at zero. But strangers who have passed part of their lives in warm climates, generally sink under it rapidly. A German physician, Von Litterow, states that at Perm, a town to the south of St Petersburgh, there was no example of a German surviving this practice more than five or six years, if he settled there as an adult. Children and young persons appear, on the contrary, to accommodate themselves pretty well to the rigour of the climate. But the Russians themselves are not exempt from peculiar accidents arising from these sudden variations of temperature. It sometimes happens, that in approaching an open door or window, they experience a very disagreeable sensation, followed by general constitutional disturbance; and immediately they are seized with sense of rending of the limbs, intense headache, and acute pains about the eyes. The only thing to be done is to restore the suppressed cutaneous transpiration. For this purpose the patient is put to bed, is buried literally under a mountain of clothes and coverlets, and drinks a large quantity of tea, as hot as possible. Diaphoresis soon occurs, and the patient, who appeared dying, is in a quarter of an hour as gay and well as if nothing had happened. It is true that the Russians perspire with remarkable facility, a circumstance due undoubtedly to their frequent use of hot baths, and of drinks at almost boiling heat.—*L'Union Médicale*, No. 13.

170.—*Prison Discipline.*—In a report laid before the Academy of Medicine of Turin, Dr Bruna Guiseppe Carlo has given an account of the hygienic and sanatory condition of the prison for young criminals at Turin. This establishment is under a mixed regulation, as regards isolation of prisoners; they are separated during the night, but work together in the day. It has been open since 1845, and in 2200 prisoners who have been received, there have occurred only 229 cases of illness in three years, and a single death in

July 1847, from phthisis. The number of such prisoners is very inconsiderable, averaging only two or three per cent. per diem, while in other penitentiaries the proportion is five, six, or seven per cent. At first, young prisoners under eighteen years of age, were received in this prison, but it was soon seen that this limitation of age was still too high, and it has been reduced to sixteen years.—*L'Union Méd.*, 1849, No. 26.

V.—MATERIA MEDICA AND THERAPEUTICS.

171.—*On an Improved Method of Preparing Collodion for Application to the Skin.* By Mr STARTIN.—Mr Startin observes that a varnish intended for application to the cutaneous surface should possess the following qualities. It should be opaque, of a colour resembling that of the skin, elastic, and lastly porous, so as to imitate as nearly as possible the cuticle, and avoid the heat and irritation which attend the application of an impermeable covering to the skin. The colouring is readily attained by adding to the collodion an ethereal tincture of turmeric or saffron, and of red Sander's wood, or alkanet root, so as to produce the required tint. The opacity and elasticity are best accomplished by the addition of a drying or a fat oil, as linseed, cocoa nut, pure cod liver, or lard, previously dissolved in ether; the proportion being half a drachm to a drachm of oil, to an ounce of collodion,—the exact quantity being regulated by the greater or less degree of elasticity and opacity required. It is remarkable how completely this simple procedure will accomplish the desired end; for by its means, and the coloured collodion, so exact a representation of the cuticle can be obtained, that the varnish produced, when applied in a thin coat, cannot be distinguished as differing from the surrounding skin, without close observation and magnifying power. It would also appear to be equally elastic with the cuticle, whilst its contractility is much modified, or entirely lost, according to the proportions of the oil employed: care must, of course, be taken to *use the best materials only*, or the colour will not be permanent, but liable to change to a yellow dirty hue, whilst it will prove an irritant instead of a soothing application. The fourth object alluded to, namely, that of rendering the varnish porous, is obtained by the addition of a small quantity of purified, highly concentrated, nearly anhydrous glycerine. With this substance the prepared collodion can be rendered as soft as a thin layer of ointment, which it resembles in most respects, except that it forms over the part a uniform covering which is coherent, and not liable to be washed away by slight discharges, or external gentle ablutions, whilst it does not require the support of lint or linen. As a simple varnish in cases of chaps, chilblains, and other minor affections of the cutis, at this season so prevalent, the prepared collodion will be found useful, and in the bed-ridden, who are not provided with the hydrostatic bed, it will be found no ordinary boon, as also in cases of incontinence of urine, and excoriations from the pressure of instruments, trusses, &c.—*Medical Times*, Dec. 23, 1848.

172.—*Means proposed to Remedy the Fragility of Nitrate of Silver Crayons.* By MM. CHASSAIGNAC and BLATIN.—The brittleness of nitrate of silver is the source not only of considerable loss of the material itself, but frequently of danger to the patient, as when the fauces, œsophagus, urethra, bladder, and cavity of the uterus are being cauterized. M. Chassaignac has succeeded in remedying this evil, by having in the centre of the stick of caustic a thread of platinum wire. M. Blatin secures the same object by a wick of cotton, which is placed in the mould before the fluid nitrate is poured into it. The crayon thus prepared is rendered more solid, and, when broken, the fragments remain attached to one another.—*Bulletin de Thérap.*, January 1849, and *L'Union Méd.*, Jan. 18, 1849.

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MONTHLY RETROSPECT

OF THE

MEDICAL SCIENCES.

JUNE, 1849.

CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

173.—*Exhalation of Carbonic Acid in Health and Disease.*—(In a memoir read to the Academy of Sciences by MM. HERVIER and ST LAGER).

Physiological State.—1. The exhalation of carbonic acid varies from hour to hour, with the variations of the barometer, having two maxima, at nine in the morning and eleven at night; and two minima, at three in the afternoon and five in the morning. The morning maximum is greater than that of the evening.

2. The variations (the increase?) of temperature and of barometric pressure act inversely in relation to the exhalation of carbonic acid, the former diminishing, the latter increasing it.

3. During digestion less carbon is burned.

4. The use of animal food diminishes, while a diet exclusively of feculents increases, the quantity of carbonic acid.

5. In a rapid race, the expired air ceases to contain carbonic acid.

6 Inspiration of ether and chloroform produces the same effect.

7. The use of alcoholic drinks has the same effect.

8. During sleep less carbonic acid is expired than in the waking state.

9. The air expired by infants contains a larger proportion of carbonic acid than that breathed by adults.

Pathological State.—1. In well-defined phlegmasiae in general, the exhalation of carbonic acid is increased.

2. In inflammations of the organs of circulation and respiration, however, or in such as tend to impede the action of these organs, this rule is reversed.

3. In the paroxysms of intermittent fever there is an increase of carbonic acid, especially in the last stage.

4. In diseases not accompanied by fever or marasmus, such as chlorosis, diabetes, nervous affections, there is no variation in the expiration of carbonic acid.

5. In the exanthemata, including erysipelas and erythema, there is diminished exhalation of carbonic acid.

6. The same is the case during suppurative process; and also in scurvy, purpura, anæmia, and anasarca.

7. In the last stage of scrofulous, syphilitic, cancerous cachexiæ, and in pulmonary consumption, the exhalation of carbon is likewise diminished.

8. The same thing takes place in typhoid fever, dysentery, and chronic diarrhœa.

In addition to these conclusions, the authors find that the temperature of the expired air does not vary sensibly in the state of health, but that in disease it varies with the number of respirations.—*Gazette des Hôpitaux*, Feb. 20, 1849.

[It will be seen from the following article that diametrically opposite results to the above have been arrived at on one of the points above-mentioned; and we have not before us any details of the experiments in either case by which to judge of the source of the difference.]

174.—*Effects of Ether on the Phenomena of Respiration.* By MM. VILLE and BLANDIN.—After making a series of experiments, these gentlemen have found that, in the state of complete insensibility and apparent death which follows the inhalation of ether, there is more carbonic acid produced by the lungs than there is during the natural play of these organs; and they further add, that, in the course of etherization, the amount of carbonic acid which is given out by the lungs is in a direct proportion to the insensibility.—*Comptes Rendus*, xxiv., p. 1016; and *Brit. and For. Medico-Chir. Review*, January 1849.

175.—*On the Minute Structure and Mode of Contraction of Voluntary Muscular Fibre.* By W. MURRAY DOBIE, Esq.—The first part of the author's paper contains a short statement of the various discoveries which have been made in the minute structure of voluntary muscle. The last author referred to is Mr Bowman, who has described the ultimate fibrilla of muscle as composed of clear and dark spaces, arranged alternately in longitudinal series. The author then refers to the descriptions taken by various writers from the specimens of muscular fibre prepared by Lealand, a London optician. These specimens show the ultimate fibrilla to consist of clear, oblong, rectangular spaces, bounded by a distinct line, and joined end to end. In the centre of each there is a small, dark, oblong space, between which and the peripheral line of the clear space there is a clear interval. From his observations on the muscles of all classes of animals, the author considers that the structure of muscle is still more complex than has yet been described. He finds an ultimate fibrilla to consist of quadrilateral spaces, which are of two kinds—the dark and the clear; these alternate regularly, and are arranged in single longitudinal series.

The dark and the clear spaces are sometimes equal in length—more frequently the latter are the shortest, and in the lobster and salmon appear sometimes as a mere line. When the fibre is stretched, the clear space is elongated and flattened, while the dark space appears somewhat elevated. These spaces are bounded laterally by a distinct line, which appears continuous; they are also separated from each other by distinct lines.

The clear space is crossed transversely at right angles by a *dark* line, which divides it into two equal quadrilateral spaces. The dark space is similarly divided by a *clear* line. Each space, therefore, consists of two compartments, which are similar in every respect to each other. Such is the appearance presented when the centre of the fibrilla is in perfect focus. When the surface is brought into focus, the light space appears *dark*, and does not show a cross line, while the dark one appears light, and shows the cross line *dark*, and more decided than before. The author has further found that, when the fibrillæ are separated, a delicate homogeneous membrane stretches from one to the other. This membrane is quite distinct from, and much more delicate than, the sarcolemma. In the skate it is striated, the striæ corresponding to those seen on the fibrillæ; this appearance is attributed to the membrane

being more elevated or thicker opposite the dark spaces.

The author has made some observations on the contraction of muscular fibre, as it is seen to take place in the tail of the tadpole, when the animal is placed uninjured under the microscope. On contraction taking place, the transverse striæ are seen to approach rapidly, and to recede as rapidly on relaxation. The blood is driven from the part by the contraction of the muscle, but again returns on relaxation taking place.

Mr Dobie concludes his paper with some directions as to the mode of preparing specimens.—*Annals of Nat. His.*, Feb. 1848.

[We have ourselves repeatedly observed the phenomenon of muscular contraction in the tail of the tadpole, and the remarkable acceleration which takes place in the circulation in the neighbourhood of the part thrown into action.]

176.—*On the Absence of Vomiting in the Horse.* By M. Flourens.—Every one knows that the horse cannot vomit; but, as to the cause of this peculiarity, there has been a difference of opinion. From his experiments and dissections, M. Flourens is led to the conclusion, that the obstacle to the reflux of the contents of the stomach,—which is such as to prevent the exit of a single drop of fluid by the pylorus, when the stomach has been distended with water and subjected to violent pressure,—is to be found partly in the very oblique mode of entrance of the œsophagus, and partly in the peculiar arrangement of the muscular fibres. These are so disposed, that various bands, arising from the coats of the stomach, pass round a portion of the tube, and then return into the muscular wall of the viscus; from which it results that, the more the latter is distended, the greater will be the constriction exercised around the pyloric orifice.—*Annales des Sciences Naturelles*, September 1848, *and Brit. and For. Med. Chir. Rev.*, April 1849.

177.—*On the Pancreatic Fluid.* By Dr C. Bernard.—Dr Bernard, after describing the mode in which he obtains the pancreatic juice in the living animal, states as the general result of his thirty-four experiments, that when it is desired to obtain the largest portion of this fluid, the experiment must be performed at the commencement of digestion, and conducted with such celerity as to leave the pancreas exposed for as short a time as possible. In this way the secretion of the juice does not become suspended; the quantity obtainable never, however, exceeding thirty grains per hour in a large dog. But a very important circumstance, which has never hitherto been remarked, is, that the secretion of the pancreas becomes considerably increased under the influence of the inflammation consequent on the operation, which sometimes is set up shortly, and in other cases not for a day or two. This increased secretion has, however, become deprived of the physiological properties of the normal fluid; so that, under different circumstances, the experiment may furnish us with a normal or a morbid juice.

The *normal* fluid is colourless, limpid, and viscous, flowing slowly out in large pearly or syrupy drops, and frothing-up on agitation. It possesses no peculiar odour, and imparts to the tongue a saline taste like that of the serum of the blood. It is invariably alkaline. Exposed to heat, it coagulates into a very white, concrete matter, as completely as does the white of an egg—not a drop of free liquid remaining. It is also precipitated by nitric acid, sulphuric acid, and concentrated muriatic acid. Alkalies redissolve the coagulated matter. We may allow, with Magendie, Tiedemann, and Gmelin, that this fluid possesses the characters of albumen, but in a physiological point of view, there is no relation between it and albuminous fluids; and indeed chemical distinctions between the two exist. Thus, when the organic matter of the pancreatic juice has been coagulated by alcohol and dried, it may be easily and entirely redissolved in water, to which it imparts the viscosity and physiological properties of the pancreatic juice.

The *morbid* pancreatic juice is generally colourless, sometimes opalescent, and at others reddish, possesses no viscosity, and produces a nauseous saline taste. It is less dense, and coagulates neither by heat or acids. The transformation of the normal into the morbid juice is so gradual, that various intermediate shades exist, as indicated by the quantity of coagulable matter, upon the amount of which the activity of the juice depends.

No fluid of the economy is so liable to alteration. Exposed to a low temperature (42° to 52°), it may be preserved for several days, increasing in viscosity, and acquiring the condition of a light jelly. Exposed to from 104° to 112° for some hours, its properties, with the exception of the alkaline reaction, become entirely altered. During the heats of summer, or in stormy weather, such changes may be effected in a few moments. The deposition which takes place furnishes to the microscope a peculiar silky

aspect, and a large quantity of needle-shaped crystals, resembling those of margarine or margaric acid. These changes in the composition of the fluid explain the discrepancies of authors in respect to its quantity of albumen.

The special action of the pancreatic juice on neutral fatty bodies out of the body.—Exposure of fatty bodies to the juice, at once produces a complete emulsion, and all fatty substances are resolved into glycerine and fatty acid, and in the case of butter, butyric acid. Parallel experiments instituted with other fluids, as bile, saliva, gastric juice, serum of the blood, produce no such effects on fatty bodies. These experiments have been frequently verified in the presence of distinguished men, as Magendie, Berard, Andral, &c. If a *morbid* or *altered* juice be employed, it exerts no action, soon separating from the fatty matter without modifying it. Partial changes are attended with imperfect results.

The pancreatic fluid is indispensable for the absorption of fatty matters, and the formation of chyle. The chyliferous vessels are only found to contain a white, milky, homogeneous fluid, on condition of their having absorbed fatty matters in the intestine; so that a limpid, transparent chyle (improperly called vegetable chyle) is a chyle without fatty matters; and a white, homogeneous chyle (improperly called animal) is a chyle containing fatty matters, emulsioned and modified. That this is effected by the agency of the pancreatic juice, may be demonstrated. If dogs are killed during digestion, oil will be found unaltered, until it comes in contact with this fluid; and if the pancreatic ducts be tied, all alteration is prevented. In the *rabbit* the pancreatic duct opens into the intestine very low down, fourteen inches below the choledochus; and if fatty matters be introduced into its stomach, and the animal be killed in three or four hours, they will be found to become emulsioned only at that low distance down, and only after then it is that the white absorbents are seen.

If it be asked how it happens that a fact now so easy to demonstrate, that it is the pancreatic fluid and not the bile which emulsions fatty matters, has been overlooked, the author is disposed to attribute it in a great measure to the prevalent belief in the salivary character of the pancreatic fluid having misled inquirers. Brodie's experiments on *cats*, showing that the chyle was rendered limpid by ligature of the choledochus, were not verified by those of Magendie on *dogs*, who found the fluid milky and homogeneous. But in the *cat* the pancreatic duct anastomoses with the choledochus before opening into the intestine, so that Brodie, unaware of the importance of the pancreatic juice, might easily have tied both vessels; while in the *dog* the choledochus is completely isolated from the two pancreatic ducts of that animal—*Archives Générales*, tom. xix, pp. 60-81, and *Brit.* and *For. Chir. Rev.*, April 1849.

II.—PRACTICE OF MEDICINE.

178.—*Clinical Observations on the Pathology and Treatment of the Dropsy which follows Scarlet Fever.* By Dr S. Scott Alison.—The author, in the first portion of his very interesting paper, illustrates the natural history of this disease, by a reference to twelve cases, selected from many which have recently come under his own observation, because they were narrowly watched, and laboriously recorded as materials for future comparison and analysis. The views of the author are, however, more fully given in the following part of his paper, in which he offers some general remarks on scarlatina dropsy. Speaking of the differences in the twelve recorded cases, as founded on the presence of albuminuria and desquamation of the cuticle, the author classifies his cases under four heads. 1. Anasarca with albuminuria and desquamation, illustrated in four cases. 2. Anasarca with albuminuria and without desquamation, illustrated in two cases. 3. Anasarca without albuminuria, but with desquamation, illustrated in two cases. And, 4. Anasarca without albuminuria or desquamation, illustrated in two cases.

In regard to the causes of dropsy as occurring after scarlatina, the author thinks that cold has too generally and absolutely been considered as the exciting cause. Under the greatest care and best management, cases of the disease have occurred; he believes, therefore, that in some cases, as in these, the dropsy is a natural consequence of scarlet fever, and not one which, had greater caution been exercised, might have been warded off. A careful observation of such cases has led Dr Alison to believe, that in them blood-letting and very lowering practice can seldom be borne. In cases of partial œde-

ma, confinement to bed, and the exhibition of purgatives, are alone required. In those cases where the circulation is excited, and congestion of the kidneys obviously exists, perspiration, and the free action of the bowels, should be early secured, and blood taken from the loins by means of leeching or cupping. In the event of the disease of the kidney remaining obstinate, a seton in the loins will form a most useful drain. In some cases the author has found suppression of urine continue, notwithstanding the exhibition of diuretics, and in other cases where these have not been employed, he has found the urine to regain its normal amount and characters. Such facts point to a careful discretion in the employment of this class of remedies. The diet should always be a well regulated one, the unnecessary consumption of azotised food, in particular, avoided. As means capable of diminishing the liabilities to dropsy, the employment of the warm bath is highly recommended—the author has found it serviceable, when taken every night during the continuance of the eruption. The security of sufferers from scarlatina would be much greater if, however mild the disease, they were detained in bed during the eruption, and for several days after its decline; and further ordered to remain within doors for three or four weeks from the commencement of the eruptive disease.

The dropsy following scarlatina is, like other dropsies, attended by inflammatory symptoms, the result of increased exhalation; it, therefore, differs materially in this respect, from chronic or passive dropsy, the consequence of venous obstruction and diminished absorption. The cellular tissue is the first seat of dropsy after scarlatina, and then the serous cavities become occupied; here, from the liabilities of the pleura, peritoneum, &c., to inflammation, the effusion is frequently mixed with coagulable lymph, or is sero-purulent. Judging from the 2d and 4th division of his cases previously referred to, the author believes that no essential connection subsists between the presence or absence of desquamation and the dropsy; and judging from other cases enumerated in that division, he believes the existence of albuminuria likewise not essential to the production of dropsy. The reduction in the amount of the secretion of urine, the author has noted as occurring in nearly all his cases; in two, which proved fatal, the amount, during twenty-four hours, was reduced to a few ounces. In some cases of scarlatina, however, on which no dropsy supervened, the quantity of urine voided has been observed by Dr Alison to be a "mere trifle." This fact, taken in connection with the changes observed in the secretion itself during eruption, the author thinks favours the idea of the kidney becoming the seat of disease at a very early period. The changes noted have been—an abnormal colour; an unnatural odour; in one case the discovery of albumen on the third day of illness; the sp. gr. in some cases 1·005, in others, as high as 1·030; the deposition of the urate of ammonia, and of uric acid on adding nitric acid. The author has only had one opportunity afforded him of examining the body of a patient dying at an early stage of the disease, the fifth day, before the eruption had declined. Convulsions terminated the case. The left kidney was found larger than the right (it generally is so), and was much congested; the right kidney was normal. The author attaches great importance to the early affection of the kidney: when it escapes implication, it is merely, he thinks, in the same way that the skin presents no eruption, and the fauces are not affected. In his opinion it is at once the cause of the suppression of the secretion of urine, of its alteration (as containing albumen), and of the general dropsy. In the experience of the author the cases of scarlatina most likely to be followed by anasarca, are marked by smart inflammatory fever, not very violent, and general vivid persistent eruption, or repressed eruption, moderate inflammation of the fauces, persistent desquamation, and scanty, turbid, high-coloured urine, sometimes of a reddish tinge. On the other hand, those cases least likely to be followed by dropsy are marked by fever of an asthenic type, and in which local disease of serious import manifests itself in some organ remote from the kidney. Very mitigated forms of the disease, have, in his experience, been altogether exempt from dropsy.—*Lond. Jour. of Med.*, No. 3, March 1849.

[From the unusual prevalence of scarlatina in Edinburgh, during last winter, we have had abundant opportunities of carefully and frequently examining the secretion of urine, and have been enabled to note, from day to day, the changes presented in its characters. An account of these changes, in so far as one particular and very important one—its coagulability in the simple cases—is concerned, was published in the January Number of the *Monthly Journal*, and in regard to it, we need only here observe, that more recent observation has in other cases con-

firmed our statements. Our experience, in regard to the amount of urine voided in the eruptive disease, differs materially from that of Dr Alison; the quantity always continued good, certainly as good as during the same stage in other febrile diseases. When the quantity fell, it was always a most valuable prognostic sign of the occurrence of dropsy. During the period of eruption, and up to the occurrence of desquamation, the colour varied but little from that of health, and the sp. gr. of the urine was normal. In general, after standing for a short period, amorphous urates were deposited—the reaction being invariably acid. Shortly after the period of desquamation was reached, the following changes ensued:—The urine, from being clear, became muddy, epithelium in large quantity was always detected by the microscope, albumen in small quantity by heat and nitric acid; amorphous phosphates were not unfrequently deposited by heat. At this stage of the disease it is, that the examination of the urine is peculiarly valuable; a decided diminution we have always observed, in cases where dropsy has supervened; on the other hand, in cases unattended by dropsy, the quantity has always remained normal; in a few has increased from that time. The changes in the condition of the urine, noticed by Dr Alison, have really not any very special significance in the urine of a febrile disease, at a time, too, when the fever is at its height; they are equally well marked in the urine of ordinary continued fever, about the same period of the disease, and yet renal affection is not generally considered as essentially connected with this affection. We are inclined to differ from Dr Alison in the importance he attaches to the affection of the kidneys in the early stage of the disease; at all events, his examinations of the urine, and his single post-mortem inspection, have failed to convince us of that importance.—J. W. B.]

179.—*On the Treatment of certain forms of Neuralgia.* By Dr SANDRAS.—Dr Sandras has been long known for his researches in various points connected with neuralgia. The present paper is devoted to the consideration of certain local forms of this affection, his point being to show that the treatment must be modified according to seat of the affection.

Neuralgia of the fifth pair yields more readily than any other to the administration of extract of belladonna, of which a third of a grain may be given every quarter of an hour, or nearly a grain as a single dose. He prefers this medicine to the extract of hyoscyamus, to the meglin pills,[1] and to morphia, whether given internally or applied according to endermic method. This last (the endermic) method ranks, however, next to the belladonna. He has seen good effects from a plaster containing black[2] cyanide of potassum. He has no faith in electricity or in the magnet, but finds that pressure on the artery anterior to the painful spot causes an immediate alleviation.

Of the subdivision of this form of neuralgia, he observes, that in *temporal* neuralgia in addition to the administration of belladonna, the temporal artery must be compressed, and the jaw held as fixed as possible.

In *sub* and *supra-orbital* neuralgia, the endermic application of muriate of morphia, as of cyanide of potassum, answers better than in temporal, ocular, or cervical neuralgia.

Sub and *supra-maxillary* yield more readily to belladonna than any other variety. The maxillary artery should be compressed at the side of the lower jaw.

Neuralgia of the *eye* also yields very readily to belladonna.

Neuralgias of the ear and in the cervical regions yield more readily to topical applications of opium than to the internal administration of belladonna. Compression, which affords much relief in neuralgia of the ear, is of little service when the neck is affected.

He likewise notices the form of neuralgia connected with the brachial plexus. These, as also sciatica, crural, and intercostal neuralgia, are most readily removed by the endermic application of the salts of morphia. In the last case he adds, that to lessen the pain accompanying the act of respiration, a combination of extract of belladonna and datura stramonium may also be administered with advantage.—*Gaz. Méd.*, No. 53, 1848.

180.—*On Polydipsia.* By M. VIGLA.—M. Vigla took the occasion of an example of this rare form of disease being in the Hotel-Dieu to deliver a clinical lecture upon it. It occurred in the person of a shoemaker, aged forty, who, two months before admission, suffered from severe frontal neuralgia. Shortly before he came in he was seized with so tormenting a thirst, that he was forced to drink six or

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1 These pills contain a grain each of extract of hyoscyamus, powdered valerian root, and oxide of zinc.

2 We must confess that we do not know what salt is meant by the *cyanure noir*. The ordinary cyanide of potassum of the French pharmacopœia is *white* salt.—ED.

seven quarts of water a day, and two or three by night. This state continued for three weeks, during which the neuralgia entirely left him; but a week prior to admission the thirst diminished and the neuralgia returned. Blisters to the head and purgatives relieved this; but the thirst now returned as intensely as ever. On the 2d of November he was found to have passed from eight to ten pints of urine since the prior evening, which was of a very pale citron hue, inodorous, nearly neutral, and of a density (1002) but little above that of water, &c. The tongue was nearly normal, the gums pale, mouth dry, and spitting difficult, saliva slightly acid, and so sparing that he could not swallow two mouthfuls without drinking; appetite gone, having some desire for vegetable food, and a loathing for animal. No pain in the abdomen, and stools are normal. Skin dry, and very susceptible to cold. Some emaciation; little sleep; suspension of sexual desires; pulse fifty-six, and regular.

There are three diseases in which excessive thirst and secretion of urine are prominent symptoms; polydipsia, diabetes mellitus, and diabetes insipidus. *Polydipsia* is distinguished from *diabetes mellitus* by there being no sugar in the urine, and mere congestion or augmentation of volume of the kidney, but no organic change. Although the odour of diabetic urine is slight, it is of a more animalised nature than that of polydipsia; and if the latter be left to itself, it passes into the putrefactive fermentation, while that of diabetes passes into the alcoholic, depositing a whitish substance, which is a true ferment. The difference of *density* sufficiently distinguishes the two urines; for while that of diabetes furnishes a specific gravity of from 1026 to 1044, that of polydipsia furnishes one of but from 1000 to 1004, or at most 1008: the density in the one affection being greater, in the other less, than in any other disease, and forming the two extremes of the scale. The urine of diabetes polarises light, which that of polydipsia does not. In diabetes the appetite may be much increased, while in polydipsia it is diminished; meat and gelatinous aliment are taken and digested in the former, vegetables in the latter. Nutrition is much more seriously affected in diabetes than in polydipsia; the continued emaciation, in spite of enormous alimentation, observed in the one, not taking place in the other. The diabetic patient easily takes cold, each cold becoming more and more obstinate, and usually terminating in phthisis. All those patients who do not die of a complication of the original disease, die tuberculous, a termination not observed in polydipsia. Arrived at such a period, the diabetes may seem cured; but in fact less sugar is secreted, because the patient now takes less food whence to elaborate it. Towards the end of the case the patient becomes œdematous, which he does not in polydipsia. Polydipsia does not easily make ravages in the constitution, the patient bearing it as well for twenty years, as for six months, which is very far from being the case with diabetes. In both affections, the complication of a febrile disease may temporarily suspend their course. In one case seen by M. Vigla, the polydipsia was suspended during an intense reaction excited by blisters, and reappeared when this had subsided.

As to *diabetes insipidus*, M. Vigla is aware of no well-ascertained example of such a disease, which, without sugar in the urine, gives rise to emaciation and eventual phthisis.

The *causes* of polydipsia are unknown. It may occur at any age, in any climate, and in either sex. Generally its access is sudden, and it becomes fully developed in a few days. M. Vigla regards both it and bulimia as *neuroses*, deranging the health no more, or even less, than other neuroses. It obstinately resists all treatment; the only remedies which are of any occasional avail being anti-spasmodics.—*Gazette des Hôpitaux*, 1848, No. 130; *and Brit. and For. Med. Chir. Rev.*, April 1849.

181.—*On Crises and Critical days in Pneumonia.*—The question of the actual existence of critical days in various acute diseases is at least as old as the time of Hippocrates. In the first twenty days of disease the critical days were, according to him, the fourth, seventh, eleventh, fourteenth, seventeenth, and twentieth. Andral having examined this point in eighty-six cases, of which he had a perfect history, has found that in much the greater number of cases the disease *terminated* on the seventh, eleventh, fourteenth, or twentieth day (*Clinique Médicale*,[1] 2d ed., t. i., p. 558). In thirty-six cases of non-traumatic pneumonia, observes Dr Josset, critical phenomena were carefully watched for twenty-three times. In thirteen cases there was a crisis by the urine, in three by sweats, and in one by epistaxis—in all seventeen cases. In the remaining six there were no critical phenomena. It is worthy of remark that of the seventeen cases where one or other of these critical phenomena presented themselves, thirteen

[1] In Spillan's Translation the cases observed by Andral are 112. See page 402 of that work. The result is, however, the same.

were in perfect accordance with the Hippocratic law; four only terminating on non-critical days. It must be added that the six cases in which no appearance of a crisis could be detected, terminated fatally, and on non-critical days, while the seventeen cases in which there was a crisis, terminated favourably, with only a single exception. In reference to the thirty-six cases observed by M. Josset, it is worthy of observation that (1) out of twenty-seven cures, twenty-two took place on critical days and five on intercalary days;[1] and that (2) all the deaths, amounting to nine, took place on non-critical days, including, however, three intercalary days.—*Gaz. Méd.*, No. 53, 1848.

182.—*On a Sign indicating the Threatening of a Relapse in Intermittent Fever.*—M. Vanoye maintains that the appearance of the conjunctive lining of the lower eyelid is of diagnostic value in this affection. In the normal state it presents a more or less bright red tint, but in persons who have long suffered from intermittent fever, it often presents a pale streak, running round the lower portion of the globe of the eye. On depressing the eyelid, and making the patient turn the eye upwards, this streak presents a crescent-like form, the concave border surrounding the lower portion of the sclerotic, while the convex border may be traced in the palpebral conjunctiva. The degree of paleness of this streak is proportional to the degree of the disease. From numerous observations M. Vanoye draws the following inferences: 1. That where this appearance does not exist, the fever has usually not been of long duration, or at all events that it will soon yield, without being followed by a relapse. 2. That where it does exist, the due administration of a febrifuge sometimes causes it to disappear in a very short time, and that then there is no fear of a relapse. 3. That when it persists, after the disappearance of the febrile symptoms, there is a relapse in the great majority of cases, and it is not till this streak disappears that we can feel sure of a thorough cure.—*Ann. de la Soc. Méd. de la Flandre Occidental*, 1848. [We shall be glad to hear from those of our readers who practise in places where intermittent fever is common, whether they can confirm the observations of M. Vanoye.]

[1] Intercalary days were days on which crises sometimes occurred, although much more rarely than on critical days. They were the third, fifth, sixth, and ninth days. On this subject we may refer to Mr Adams' learned Commentary to Paulus Aegineta, vol i., p. 196.

183.—*On the Diseases of the North American Indians.* By Dr THOMAS STRATTON, R.N.—The author has been stationed in Canada for several years, and has enjoyed opportunities of seeing and treating many of the diseases prevalent among the North American Indians. For a considerable period Dr Stratton held the post of surgeon to the Chippawa Indians of Lake Huron. The diseases, with the exact number of cases treated, and, in one instance, the number of deaths, and their causes, are placed in the form of tables. Dr Stratton suggests that if each of the four surgeons employed in the Indian department sent to the head office in Montreal yearly returns of births and sexes, deaths, ages, and causes of death, diseases and results, and also the total number of the Indian population — that such reports would form a very interesting contribution to medical and national statistics. On a general view of these tables, by far the largest number of cases is found classified under the head of fever; this again being subdivided into intermittent, bilious, intermittent and remittent fevers. At the conclusion of one table an important observation is made in regard to these fevers, that none of them were attributable to malaria. The deaths are more numerous from fevers than from any other cause. Of other febrile diseases, scarlatina, measles, and erysipelas, are mentioned, and under them a considerable number of cases classed. In regard to the former of these, the author remarks, that the Indians were less susceptible of an attack than the whites; further, that scarlatina appeared much less severe among them, and was much less frequently followed by glandular swellings and dropsy. Of affections of the chest there are recorded —bronchitis, pleuritis, pneumonia, and phthisis. The above affections, together with diarrhœa and dysentery, include by far the greater proportion of the cases recorded. Under the denomination of peculiar ulceration of various parts of the body, are given several cases. These ulcerations, says the author, are the remains of a disease resembling the yaws of West Indies, and the sibbens of Scotland. From their having prevailed more among the Ottawas than any of the other tribes, Dr Stratton has named the disease, of which they are the most prominent feature, the Ottawa disease. The Indians themselves have no distinct name for it. The disease is stated to have made its first appearance among the Indians round Lake Huron, in 1740 or 1760, and tradition says, its first subject was a woman, from whom it was observed to spread.

The leading symptoms of the disease are langour and lassitude; dull, almost constant pain in the orbits, and in the upper part of the nose, ulceration of the nostrils and soft palate, sometimes destruction of the hard palate, or bad odour from the nostrils, and pains in the bones. Small ulcers form in the groin, on the inside of the thighs, and at times on the arms. A thick crust, when removed, discloses an indolent-looking scooped-out ulcer of no uniform size. Sometimes an eruption appears in the groins and on the inside of the thighs, and, in some cases, a peculiar, scrofulous looking superficial ulceration exists over the axillæ, groins, thighs, or arms. No eruption about the mouth has been observed, no destruction of any bone except the palate; the genital organs are never affected. It prevails more among females than males. No doubt seems to exist as to the contagious nature of the disease. The Ottawa disease has not been seen in the whites. The Indians call this affection and syphilis twins. When the disease first made its appearance, it was frequently fatal, it is now milder, and admits of a favourable prognosis. Treatment required consists in good diet; citrine ointment to the nasal and palatine ulcers, a mild course of mercury, or the application of the nitrate of silver to the sores, and the internal administration of iodine, or the hydriodate of potass.

Two other affections peculiar to the inhabitants of these regions are mentioned. The mal-de-racquette or snow-shoe evil, a painful affection of the instep in persons unaccustomed to snow shoes, and after their first wearing them for a few days. Snow ophthalmia is also apt to come on, in walking over ice and snow; the Indians, to guard against this affection, wear veils. Smallpox, when first appearing among the Indians, was very fatal, carrying off whole bands and tribes. They appear to suffer as much as the whites from ague and remittent fever. Dr Stratton never saw goitre among them, although prevailing among other races in the neighbourhood. Accidents and operations, owing to a less susceptibility of constitutional disturbance, are better borne than by Europeans. Among the Indians there is seldom seen any congenital bodily deformity, and they are much less subject to mental diseases than nations living in a more civilised, or artificial manner.—*Edinburgh Medical* and *Surgical Journal*, April, 1849.

III.—PRACTICE OF SURGERY.

184.—*Volvulus cured by Gastrotomy.* By M. Reali.—Luigi Stella, well formed and strongly made, 30 years of age, ate one evening a number of cherries, stones included; next morning he was obliged to lift heavy weights (for a long time he had had an inguinal hernia, which he kept up in the worst way possible). Owing to these efforts, he felt severe pain in the lower part of the right side of the abdomen, which soon spread all over it. He was sent to the hospital of Orvieto immediately, when M. Reali found the hernia not strangulated, but a tumour about the size of a hen's egg in the right iliac region. There was as yet no stercoraceous vomiting or absolute constipation, but M. R. suspected a volvulus. The patient had again two small stools, but after that, notwithstanding the use of most powerful medicine, no alvine evacuation occurred for five days. He vomited muco-bilious matter and lumbrici; the torturing pain continued, perspiration clammy, prostration great, pulse small and cord-like. At last stercoraceous vomiting ensued, which determined M. Reali to perform gastrotomy. Ether was administered, and an incision was made along the linea alba, four inches in length, from an inch below the umbilicus to near the pubis. The coverings were successively divided with care, and the peritoneum opened. The intestines, enormously distended, were pushed to the left side. The tumour was at the termination of the ileum, near the cœcum. On account of peritoneal attachments, it could not be brought to the external wound. The strangulation deserved the name of Solomon's knot, (? from the wisdom required to undo it, or from Solomon's proposed method of settling the knotty question of the dead and living children) for a knuckle of ileum, an inch and a half long, containing a cherry stone, was circularly embraced by another in such a manner, that at whatever extremity you pushed, you could not undo the knot, although you could relax it. Not being able to undo it, the operator proceeded to cut it (Solomon II.), he made three incisions in the intestinal ring, the reduction was then made, and the incisions closed by enteroraphé, and the intestine replaced. The operation lasted eleven minutes. The external wound was brought together by

the twisted suture, and a uniting bandage. Ice was kept on the abdomen for several days, and the patient had doses of castor oil and oil of bitter almonds. After the first day, flatus escaped per anum, and the next day solid feculent matter, with a number of cherry stones. The fever present at the commencement rendered bleeding necessary ; it lasted for ten days, with symptoms of acute entero-peritonitis. The circumference of the wound soon became gangrenous ; this spread a good way ; sloughs of cellular tissue, with portions of peritoneum, came away ; there was also discharge of feculent matter by the wound. But, notwithstanding these complications, and an error in regard to his diet at a later period, the patient was cured at the end of four-and-a-half months.—*Gazette des Hôpitaux*, Feb. 17, 1849.

185.—*New Instrument for the Treatment of Strictures of the Urethra.* By M. RIGAUD.—At a meeting of the Académie de Médicine, on the 23d January, M. Honore, in the name of M. Rigaud, Professor to the Faculty at Strasbourg, read a paper on a new instrument for the treatment of stricture of the urethra. The author believes that by the aid of this instrument, the solution of the problem of dilatation is completely determined, a solution consisting, according to him, in constructing a catheter of very small diameter, which could, when once introduced into the canal, be dilated uniformly, gradually, regularly, equally, in its whole length. The paper, and instrument accompanying it, were returned to be examined by MM. Segalas and Huguier.—*Gazette Médicale de Paris*, Jan. 27, 1849.

186.—*Treatment of Varix by Galvano-Puncture.* By M. CAPELLATI.—M. Capellati states, that the application of the galvano-puncture to the treatment of varix of the lower extremities, constitutes a means both very prompt and without danger to the patient, which gives it a great advantage over all other methods, as ligature, incision, excision, cauterisation, &c. The galvano-puncture, he adds, acts in two different ways, by causing the approximation of the venous parietes, and consecutively the coagulation of the blood there enclosed. It may be repeated several times without inconvenience. As might be expected, it is of no avail for varix arising from disorder of the abdominal viscera, giving rise to the disease of the vena portæ. The cure of varix by galvano-puncture, as by all other methods, depends on the cure of the disease which causes it or pre-disposes to it ; after the cure of the varix it is advisable for the patient to wear a laced stocking for some months, to prevent engorgement of the venous system of the affected limb. M. Capellati adds, that he believes that the galvano-puncture will be found of very great use in the treatment of varicocele and hemorrhoids ; which is partly confirmed as far as regards varicocele, by an observation of Dr Gambarini.—*Archives Générales de Médecine*, October, 1848.

187.—*On the Operation for Tying the Subclavian Artery Internal to the Scaleni Muscles.* By Dr HARGRAVE.—Dr Hargrave, after stating the general causes of failure in ligature of the subclavian in the first part of its course, says—"It has been proposed, to facilitate the operation for securing the vessel in question, "to saw the clavicle," which would certainly afford more space for the subsequent dissections ; this suggestion is borne out by performing the operation on the dead body : Cruveilhier has also advocated such a practice.

It is this step in the operation which I would again propose, not so much for the facile exposing of the artery, but to allow it to be gently relaxed, after having been secured; the section of the clavicle would allow this to be done by permitting the approximation of the shoulder to the trunk, and so remove any strain or tension that the ligature might cause on the vessel ; it would also remain more imbedded in the surrounding cellular membrane, and receive its supply of blood more freely to assist in the sanatory processes consequent on the operation ; while the movements of the upper extremity would produce but little, if any, disturbing effects upon the artery.

The mode of conducting the operation I propose, would be, after the vessel was exposed and encircled in the ligature, carefully to saw through the clavicle about its middle, having previously guarded the subjacent parts with a spatula. If any alterations followed this step in the relations of the artery, they would be of little consequence, it being noosed prior to the section of the bone ; no delay or hindrance would then prevent the tying of the artery. The action of the muscles which draw the shoulder to the trunk, as the subclavius and pectoralis minor, should then be aided by position, and the arm retained *in situ* by a bandage."—*Dub. Quar. Jour.*, Feb. 1849.

188.—*Cases of Fœcal Abscess.*—By JOHN THURNAM, M.D.—After noticing the Memoirs by Dr Barne, in the 20th and 22d volumes of the Medico-Chirurgical Trans-

actions, and to Dr Battersby's Report in the Dublin Journal for May 1847, the author gives two cases, which appear to throw some light both on the pathology and the treatment of the disease.

Case 1.—A clergyman, æt. fifty-six, and suffering from mental aberration, had long been the subject of what was regarded as an incipient inguinal hernia on the right side, for which he wore a truss. On the 20th of January he complained of much swelling, and a tumour as large as an egg was found in the situation of the external abdominal ring, which was supposed to consist of omentum, and defied all efforts to return it. The patient recollected that, some days previously, he had experienced a sensation of "something giving way in that situation." The tumour was very closely connected with the front of the spermatic cord; it had a pyramidal form, and was evidently situated beneath the spermatic fascia. There were no symptoms of intestinal obstruction, nor yet of constitutional disturbance. There had been an evacuation from the bowels within twenty-four hours. The tongue was clean, and the pulse not accelerated. The tumour, however, increased in size, and was the seat of some dull pain. Calomel, followed by castor oil, was given, and leeches and hot fomentations applied. On the fourteenth day it had so much increased as to distend nearly the whole of the right side of the scrotum, encroaching on the testicles, and giving rise to some little serous effusion into the tunica vaginalis. The pain became more severe. On the twentieth day, the tumour was nearly as large as the two fists, and something like softening was detected at the lower and anterior parts. There had been a distinct rigor a day or two previously, and the pain was of a more severe, burning character. On the twenty-fourth, the pain had still increased; and, as fluctuation was detected, a seton-lancet was introduced, and somewhat less than half an ounce of a dirty, olive-coloured, semi-purulent fœcal matter escaped, mixed with, and followed by, a few bubbles of gas. A pledget of lint was introduced, and poulticing was continued. Great relief was afforded; and about half an ounce of matter was discharged daily, which gradually became less offensive. The patient's strength was kept up by more generous diet, and bark with sulphuric acid; and the bowels were opened by castor oil. At the end of a week it was found, that while the discharge of matter had much diminished, a second little abscess was forming below the former one; this also was opened, and yielded about three drachms of serous pus. About a month afterwards the sinus left by the second abscess was laid open, and on the lint with which the wound was dressed, there was found a small triangular bit of bone, with sharp angles, and not measuring more than a quarter of an inch in any direction—the fragment, probably, of a mutton chop. After this there was no more pain, the suppurations entirely subsided, and in ten days from the discharge of the bone, the tumours entirely disappeared, the whole duration of the case being ten weeks. In the course of a few weeks his general health was as good as ever.

The author concluded, that the mucous membrane of the cœcum was predisposed to disease by the habitual constipation to which the patient was subject; that ulceration of the mucous membrane of the bowel, or of its vermiform appendix, was thus produced; that this had terminated in perforation of the bowel, and in the escape of some of its contents into the surrounding cellular tissue; and that these latter had in their turn given rise to the inflammation and abscess which were the subject of treatment. This case confirms the importance of opening the abscess as soon as fluctuation can be detected, and thus preventing the formation of sloughs, which so frequently prove fatal in cases of fæcal abscess. The patient died shortly afterwards from a distinct cause, and the dissection showed the general accuracy of the above view.

Case ii.—An unmarried female, æt. sixty-eight, who had spent more than half her life at the Retreat, and was distinguished by a pale, wax-like complexion, flabby muscles, and feeble gait, and had been imbecile for several years, was observed, on the 13th of January, to be paler than usual, and very fretful. On examination, there was a fulness on the right side of the abdomen, and tenderness on pressure. The tongue was moist and white; the bowels confined, and the stools dark and offensive. Leeches were applied, and appropriate remedies exhibited; and although deep-seated hardness was still to be detected, she on the 18th left her bed, and on the 24th, though more feeble than before the attack, discontinued her medicine. She remained apparently well till the 6th of February, when a circumscribed tumour, the size of an orange, was detected immediately below the umbilicus. It was firm, dull on percussion, and could be handled without occasioning pain. We need not describe the local and general treatment; it is sufficient to observe

that on the 12th it had attained to twice its former bulk, was of a blueish-red colour, and some indications of fluctuation, combined with an emphysematous crepitation, were communicated to the fingers. The tongue was dry, and covered with a yellow fur; the bowels free; there was slight nocturnal perspiration, but no sickness or rigor. There was no difficulty in deciding that the case was one of fæcal abscess, communicating with the large intestine, and probably containing gas.

The above symptoms were more marked on the following day (the 13th), and the tumour was punctured. About an ounce and a half of dark purulent matter escaped, having a strong fæcal odour, and mixed with gas. No communication with the intestine could be detected with a probe. Under the use of beef-tea and wine, we found that by the end of February the cavity of the abscess was filled up, leaving only a small fistulous opening in the centre of a depressed and puckered cicatrix. By the end of March this opening closed, and she was well enough to return to her ordinary mode of living. On the 7th of April, however, the cicatrix gave way, and purulent matter, mixed with gas, escaped. From this time until her death, on the 12th of June, a few drops of pus were discharged daily; her emaciation became extreme; œdema, commencing in the ankle, extended up the right leg to the thigh; the tongue became brown and dry; respiration became short and impeded; and during the two last days, there was a suppression of urine.

On examination it was found, that in the middle of the transverse arch of the colon, to the extent of two or three inches, the muscular tissue of the bowel was the seat of scirrhous degeneration and hypertrophy. The mucous membrane, to the same extent, was replaced by a soft cancer, which in some places was softened, broken down, and ulcerated. The fungous growth blocked up the intestine in such a way, that the little finger could barely be passed through it. At the bottom of the ulcerated surface there was a small opening, by which a probe could be passed through a mass of sloughy and suppurating tissues, through some old adhesions into the cavity of the abscess, and so through the external fistulous opening. In the upper and left part of the cœcum were two small orifices, about half an inch apart, with elevated thickened borders, through each of which a probe could be passed into the external fistulous opening. The mucous membrane covering the fistulous orifices in the cœcum, was rather short and red, but otherwise the cœcum and vermiform appendage were healthy.

From these two cases it appears, that the presence of gaseous matters in the contents of the abscess, and the consequent sense of crepitation communicated to the fingers before the abscess is opened, and the presence of bubbles of air in the discharged matter, are the most important symptoms. When the abscess is dependent, as in the second case, upon malignant disease (which, however, is a very rare cause), cancer-cells might possibly be found in the discharged matter.—*Prov. Med. and Surg. Journal*, September 1848.

189.—*Inguinal Tumour. — Cancerous Testicle.* Professor VELPEAU.—Professor Velpeau mentions a case that had come under his care at La Charité, where the patient had a tumour in the inguinal region, evidently of a cancerous nature. He had only one testicle (the right) down in his scrotum. M. Velpeau thought this tumour was the left testicle, which turned out afterwards to be the case. This is the first instance that M. Velpeau has seen, where the testicle was cancerous without being down in the scrotum.—*Gazette des Hôpitaux*, Jan. 6, 1849.

190.—*Tumour at the Elbow.*—The following case occurred in the practice of M. Velpeau, and is narrated by M. H. Blot:—

The patient, a young man, æt. twenty-two, was admitted into the hospital of la Charité, on the 5th July. About four years previously, without any known cause, a small tumour, of the size of a hazel nut, appeared at the bend of the left elbow. Since then it had gradually increased, until now it was almost as large as a fist. It was of an elastic consistence, not adherent to the surrounding tissues, and was the seat of occasional severe pain. The patient had never been bled from that arm. No pulsation nor any bruit could be detected in the tumour, nor was its size diminished by pressure upon the humeral artery, but towards its centre indistinct fluctuation could be felt. July 6.—A small trochar having been introduced into the tumour, about two ounces of blood escaped. On the instrument being removed, the tumour, which had become soft and somewhat shrunk, immediately regained its former size and consistence. July 7th.—On examination feeble pulsation was now perceived in the tumour, and its size could be partially reduced by pressure.

Pressure upon the humeral artery, and afterwards over the tumour, were employed, without producing any marked effect. Ligature of the artery was then performed; this caused a temporary cessation of the pulsation, and decrease in the size of the tumour. September 10.—The tumour having regained all its former characters, M. Velpeau next employed acupuncture, the only effect of which was to cause subcutaneous suppuration. October 23.—An incision was made through the whole length of the tumour, and it being found impossible to secure the bleeding points, the wound was filled with pledgets of lint. During this operation, the patient lost a very large quantity of blood. On the 28th, symptoms of tetanus appeared; and he died upon the 3rd November.

On examination the tumour was found to consist of a mass of unorganized fibrine, mixed with blood globules, showing its origin to have been a simple effusion of blood. The median vein passed in front of the tumour, and was not in any way connected with it; but behind, at the place where the artery was in contact with the tumour, a small fissure was discovered in it, through which the head of a large pin could be passed, and from which the injection which had been thrown into the artery had escaped into the tumour. The humeral artery was impervious for half an inch below where the ligature had been applied, but lower down was of its natural size. The articular branches at the elbow were very much enlarged.—*L'Union Médicale*, Jan. 2 and 4, 1849.

191.—*Tumours over the Knee-Joint.* By M. A. Bernard.—M. A. Bernard states, that a tumour in front of the patella, exactly resembling the disease here called housemaid's-knee, is of frequent occurrence among *religieuses*. Puncture and injection with iodine, when the tumour is large and soft, and extirpation when it is small and less fluid, constitute the treatment usually adopted by him. The method found so successful in this country of puncturing, and then applying a blister over the tumour, does not appear to be in use in the Parisian hospitals.—*Gaz. des Hôp.*, Jan. 25, 1849.

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

192.—*Death of the Princess Charlotte.* By Dr Sims.—The following is a letter concerning this case addressed to Dr Clarke of Dublin, by Dr Sims, one of the consulting physicians in attendance.

"London, November 15, 1817.

"My Dear Sir,—I do not wonder at your wishing to have a correct statement of the labour of Her Royal Highness Princess Charlotte, the fatal issue of which has involved the whole nation in distress. You must excuse my being very concise, as I have been, and am very much hurried. I take the opportunity of writing this in a lying-in chamber.

"Her Royal Highness's labour commenced by the discharge of the liquor amnii about seven o'clock on Monday morning, and pains followed soon after; they continued through the night and a great part of the next day, sharp, short, but very ineffectual. Towards the evening Sir Richard Croft began to suspect that the labour might not terminate without artificial assistance, and a message was dispatched for me. I arrived at two on Wednesday morning. The labour was now advancing more favourably, and both Doctor Baillie and myself concurred in the opinion that it would not be advisable to inform Her Royal Highness of my arrival. From this time to the end of the labour, the progress was uniform, though very slow, the patient in good spirits, pulse calm, and there never was room to entertain a question about the use of instruments. About six in the afternoon the discharges became of a green colour which led to a suspicion that the child might be dead; still the giving assistance was quite out of the question, as the pains now became more effectual, and the labour proceeded regularly though slowly. The child was born, without artificial assistance, at nine o'clock in the evening. Attempts were for a good while made to reanimate it by inflating the lungs, friction, hot baths, &c., but without effect; the heart could not be made to beat even once. Soon after the delivery Sir Richard Croft discovered that the uterus was contracted in the middle, in the hour-glass form, and, as some hemorrhage commenced, it was agreed that the placenta should be brought away by introducing the hand. This was done about half an hour after the delivery of the child, with more ease and less loss of blood than usual. Her Royal Highness continued well for about two hours; she then complained of being sick at stomach, and of noise in her ears; began to be talkative,

and her pulse became frequent, but I understand she was very quiet after this, and her pulse calm. About half-past twelve o'clock she complained of severe pain at her chest, became extremely restless, with a rapid, irregular, and weak pulse. At this time I saw her for the first time, and saw immediately that she must die. It has been said that we were all gone to bed, but that is not a fact. Croft did not leave the room, Dr Baillie retired about eleven, and I went to my bed-chamber and laid down in my clothes at twelve. By dissection, some bloody fluid (two ounces) was found in the pericardium, supposed to be thrown out in articulo mortis. The brain and other organs all sound except the right ovarium, which was distended into a cyst, the size of a hen's egg; the hour-glass contraction of the uterus still visible; a considerable quantity of blood in the cavity of the uterus, but those present differ about the quantity, so much as from twelve ounces to pound and a half; the uterus extended as high as the navel. The cause of Her Royal Highness's death is certainly somewhat obscure; the symptoms were such as attend death from hemorrhage; but the loss of blood did not appear to be sufficient to account for a fatal issue. It is possible that the effusion into the pericardium took place earlier than what was supposed, and it does not seem to me to be quite certain that this might not be the cause. As far as I can judge, the labour could not have been better managed. That I did not see Her Royal Highness more early was awkward; and it would have been better that I should have been introduced before the labour was expected; and it should have been understood that when the labour came on I should be sent to without waiting to know whether a consultation was necessary or not. I thought so at the time, but I could not propose such an arrangement to Croft. But this is entirely *entre nous*.

"I am glad to hear that your son is well, and, with all family, wish to be remembered to him; we are happy to hear that he was agreeably married.—I remain, my dear Doctor, ever yours most truly,

"JNO. SIMS."

"P.S.—This letter is confidential, as, perhaps, I might be blamed for writing any particulars without the permission of Prince Leopold."—*Life and Writings of Dr Joseph Clarke. By Dr Collins*, p. 68.

193.—*Four Cases of Extraction of Placenta before the Fœtus in Unavoidable Hemorrhage.* By Drs WALLER and PECK.—Dr Waller's case, although it terminated fatally, confirms the opinion that perfect detachment of the placenta has the effect of arresting, instead of increasing, hemorrhage; at any rate, it adds one more to the many cases already recorded by various obstetricians, which prove most satisfactorily, that the entire removal of this organ (the after-birth), does not, as was formerly supposed, necessarily involve as its consequence an increase of the bleeding.

When Dr Waller visited his patient along with Dr Brydges, he found her lying in a fearful condition—her countenance ghastly, extremities of a marble coldness, and no distinguishable pulsation in the radial arteries. Fearing the after-effects of turning and delivering in such a state of matters, Dr Waller decided on removing the placenta, which was easily effected. As much nourishment and stimulants were administered as her stomach would carry, and in about ten hours afterwards she was artificially delivered, as the continuance of labour was again bringing on the symptoms of excessive prostration, from which she suffered before the separation of the placenta.—*Med. Times*, April 14, 1849.

Dr Peck was summoned to Mrs Rush, in labour for the third time. She was of leucophlegmatic temperament, and naturally delicate. There had been so much hemorrhage that she was nearly exhausted. On examination, he detected a globular, softish, spongy mass immediately over the os uteri, which was flabby, and sufficiently dilated to introduce four fingers. A pain came on, and with it a fearful gush of hemorrhage. Dr P. was now certain that it was a case of placental presentation. Perceiving that the woman was getting weaker, he determined immediately to remove the placenta, directing immediately the administration of some brandy and water, and a full dose of ergot. He then introduced his hand, carefully peeling the placenta from its attachment to the uterus, removed it, and divided the funis. Immediately the hemorrhage ceased. Uterine action not coming on for some time, he repeated the secale, occasionally passing his finger around the inner surface of the os uteri, and shortly his patient rallied. In about four hours the fœtus was naturally expelled. The woman, he remarks, is doing well.

Dr Peck has pursued this plan in two other cases, with the same advantage to the mothers as in the above case, and in one of the cases the child was saved.—*Prov. Med. and Surg. Journal*, April 4, 1849.

194. —*Preternatural Presentation repeated in Five Successive Pregnancies.* By Madame Renard.—Madame R. remarks, that it is well known that if a preternatural presentation occur once, it is very probable that it will occur again in the next pregnancy. M. Walther has recorded a case where the shoulder presented in six successive pregnancies, in consequence of a malformation of the uterus. In the case which she details, and in which she has now delivered for the fifth time, she has always found the shoulder presenting. The cause of this, in Madame R.'s case, is a malformation of the pelvis of the woman.—*Gaz. des Hôpitaux*, Mars 20, 1849.

[Drs Denman, Lee, Collins, &c., have recorded similar cases. The last author mentions a case where preternatural presentation occurred in nine successive pregnancies. In an article to be speedily published, Dr Simpson has classified these cases, and demonstrated the theory of their recurrence.]

195.—*Puerperal Tetanus.* By Dr Pitre-Aubinais. — There exists a traumatic puerperal affection distinct from what is ordinarily called puerperal eclampsia. It is characterised by clenching of the jaws (trismus), difficulty or utter incapability of swallowing, contraction or convulsive tension of certain of the muscles, and sometimes of all the voluntary muscles together. This rare affection it is proposed to call puerperal tetanus. It comes on spontaneously, generally soon after the supervention of the milk flow, and in woman who ought not to nurse. M. Aubinais has observed it only in women in the country, and where the lochiæ as well as the cutaneous transpiration, have been arrested by the sudden influence of cold and damps—as by plunging the feet into cold water, walking barefoot on damp ground, or swallowing at once a large quantity of cold water.

Of three cases which M. Aubinais has seen, the affection proved fatal in one. The treatment resorted to, consisted in the use of antiphlogistic remedies and narcotics. In one of the cases, where the woman appeared to be under the influence of the poison of ague, quinine was exhibited with advantage.—*Journal de la Societé de Médécine de la Loire-Inferieure; and Bulletin de Therap.* 15 Avril 1849.

196.—*Urethritis in the Female.* By Dr M'Clintock.—Dr M. detailed the histories of two cases of urethritis in females. One of these patients was a lady in the fourth month of her twelfth pregnancy, who had been suffering from this affection of the urethra for two months, and had tried a variety of means for its removal, prior to his seeing her. The other patient was a poor countrywoman, who had given birth to five children, three of whom were removed by craniotomy, in consequence of a large osteo-sarcomatous tumour within the pelvis. The symptoms in both cases were nearly identical, and were as follows:—Intense burning pain during each act of micturition, accompanied with much straining and bearing down. There was no discharge from the vagina, nor any evidence of disease of this canal or of the uterus. The urine of each, examined in the ordinary way, seemed healthy and free from albumen. Looking at the meatus urinarius, the mucous membrane of the canal was seen to be in a highly vascular and swollen condition, so as to form a considerable tumour at the orifice. This, when touched, was exquisitely sensitive. Having satisfied himself as to the pathological state of the parts, he commenced the treatment. In the first case, he began by trying astringent local applications, such as alum, zinc, and lead washes; and these failing to produce any beneficial effect, anodyne lotions of various kinds were next used, but with no better result; lastly, he applied directly to the part a strong solution of lunar caustic, but neither did this bring about any improvement in her condition. It then occurred to Dr M'Clintock to make trial of copaiba, which we know exercises a very marked influence upon the mucous membranes generally. He accordingly commenced with three capsules of the balsam in the day, and increased the number to four per diem. This treatment at once produced the most decided improvement; so that after she had taken eighteen capsules, she was entirely freed from her torturing complaint.

In the second case, the complaint was of six week's standing, and without waiting to try the effects of any other remedies, he at once commenced the use of copaiba capsules in the manner just described, and with a like satisfactory result, as a perfect cure was established before she had finished the box. A subsequent examination of the urethra, showed that it had re-acquired its natural healthy characters. In commenting upon these cases, Dr M'Clintock very clearly pointed out how they differed in their symptoms and pathological nature, from gonnorrhœa, from vascular tumour of the meatus urinarius, and from thickening of the cellular tissue surrounding the urethra,—a disease first described by Sir C. M. Clarke. Lastly, he alluded to Dr Ashwell's chapter on

"Chronic Urethritis," in the last edition of his treatise on female complaints, which is the first work containing a description of it. The extremely incontrollable nature of the disease described by Dr Ashwell, which almost set any treatment at defiance, inclined Dr M'Clintock to entertain suspicions as to whether the cases he met with could have been of the same nature as his; and yet that they really were instances of inflammation of the urethra, he established beyond any manner of doubt. In order to reconcile these conflicting results, he could only suppose that the form of the complaint seen by him was of a milder and more tractable nature than had come under Dr Ashwell's care; or else that the inflammation had been limited to a part of the canal only.

Up to the present time, both the above patients have continued in excellent health, and had no return of their truly painful malady.—*Med. Times*, March 10, 1849.

197.—*The Absence of Urea in the Liquor Amnii and Fœtal Urine.* By Dr A. H. M'Clintock.—Dr M'Clintock was led to the present investigation by the examination of a fœtus born at the full time, and which had died immediately after its birth. The vesical extremities of both the ureters were imperforate, and the ureter on the right side was so dilated as to contain not less than a pint and a half of urine. This case, though not unique, shows (in opposition to the generally received opinion) that the secretion of urine is already commenced before the birth of the infant. Similar cases are described by Dr Lee, Dr Fearns, and Dr Montgomery.

The researches and experiments of Drs Prout and Bostock, of Frommhertz and Gugert, and of Dr Rees, would lead us to believe, that in some cases a small quantity of urea is, sometimes at least, contained in the liquor amnii. But this evidence is more than counterbalanced by the researches of Berzelius, Raspail, Mack, Colberg, Veigt, Prout, Lassaigne, and Moore, all of whom agree in thinking that no urea is normally contained in the liquor amnii.

Here, then, are two classes of facts, seemingly in opposition to one another; viz. first, the undoubted proofs of urine being secreted by the fœtus in considerable quantity before birth; and secondly, the complete absence of urea in the majority of instances where the liquor amnii was subjected to accurate chemical analysis. In order to reconcile these discordant conclusions, it becomes an object of the utmost importance to ascertain the composition of the fœtal urine, as hitherto observers appeared to have taken it for granted, that the renal secretion possessed the same chemical characters during intra-uterine life, as it does after birth.

Further experiments by Dr Moore seem to justify the conclusion, that the urine of the child before birth differs in its chemical constitution from that secreted subsequently, in two very remarkable particulars, viz. first, in containing a large quantity of albumen; and secondly, in being almost or altogether deficient in urea. Hence, none is to be looked for in the liquor amnii, although it is in all probability mixed with a large quantity of urine passed by the fœtus during its intra-uterine life.

The liquor allantoidis of some of the lower animals, the cow for example, is considered to be the urine of the fœtus; but although it has several times been the subject of chemical investigation, urea has not as yet been detected in it, and albumen has always been found present. This would seem to give additional confirmation to the results we have obtained in our examinations of the fœtal urine of the human subject. According to the views of Liebig, the peculiar substance called *allantoin* appears to replace both urea and uric acid in the urine of the fœtus of brutes; it would, therefore, be an interesting subject for further inquiry, to ascertain whether this or some analogous product be present in the urine of the human fœtus.—*Dublin Quarterly Journal*, Feb. 1849.

198.—*The Heart-Clot.* By Dr Meigs.—I believe it is a fact, says Dr Meigs, not to be controverted, that in an animal slowly bled to death, the first portions of blood extravasated coagulate less readily than the last portions. If this doctrine is true, it follows that the coagulability of the blood left in the vessels after great hemorrhages is augmented: I have had several occasions to find that it is dangerously augmented. To take one of the most ordinary cases of hemorrhage,—I mean that occurring after labour, or in abortions,—we have an instance in which, even after the arrest of the bleeding, the patient is exposed to mishap from the coagulability of the blood remaining in the vessels. Loss of blood produces a tendency to fainting or lipothymia. During an attack of fainting, the motions of the heart are enfeebled; the blood moves languidly in both the venæ cavæ, pours itself out in a slow current into the auricle, which it sluggishly distends, and sometimes is then instantly converted into a

solid clot. If a clot be formed in the right auricle, it will also be formed in the *iter ad ventriculum dextrum*, filling up the cone of the tricuspid valve; and the neucleus of it will cause the coagulum at length to occupy the cavity of the right ventricle, and extend itself to a greater or less distance along the tract of the pulmonary artery. If the whole pulmonic side of the heart should be perfectly occupied in this way, the death of the individual would be instantaneous; and I doubt not, that many of the examples of sudden death, after delivery in hemorrhage labours, are produced by the formation of cardio-morphous coagula which form in the instant of a state of fainting or lipothymia.

I may assert the opinion here, that fainting is oligæmia of the encephalon, and that a hyperæmia of the encephalic bulbs is the very converse of, and absolutely incompatible with, the state of swooning. To raise up a woman who has within the few days past lost a considerable quantity of blood is almost inevitably to bring on deliquium. Now, if the idea be just, that hemorrhage renders the remaining blood more coagulable, then it follows, that to take the woman out of bed, or to let her sit up in bed, is to expose her to the hazard of forming a coagulum in the right auricle, which, by extension of the nucleus, may fill the ventricle, occupy the aperture of the tricuspid, and pass several inches upwards in the course of the pulmonary artery and its branches. Monthly nurses, and the ordinary attendants of the sick, know nothing of these things, and they hesitate not, oftimes, to exhort or to permit the anæmical accouchée to rise and sit for a few moments for purposes that might be answered without quitting the horizontal position.

The time required for extinguishing the life of the sufferer is a variable time; one relative to the magnitude and extent of the coagulation. One of my patients, says Dr Meigs, lived forty-eight hours after the occurrence of the accident, during which time she suffered the most inexpressible respiratory distress. She filled her pericardium with serum, while her peritoneal cavity became also the subject of a great effusion. Upon examining the heart twenty-four hours after her decease, one might feel surprised that her life could be so long protracted, since the auricle, tricuspid, and ventricle were completely tamponed with a clot which was not an enthanasial clot, but consisted apparently of a firm, whitish-yellow mass of fibrine, out of which every particle of hæmatoglobulin had been washed away, or expressed. An enthanasial clot is, in my opinion, necessarily a red one; a pre-enthanasial one ought to be white.

To enter an apartment one has quitted only half an hour before, and to find a patient hopelessly ill with signs of imminent death, yet who had no serious symptoms of illness before—to find her making desperate voluntary efforts to breathe, without any signs of laryngeal, or phrenic, or pulmonic inflammation, or accident—to see the face pale and ghastly—to observe her conscious sense of impending asphyxiation from loss of oxygen—without the leaden or iodic hue of a general cyanosis — These are the grounds of a diagnosis which may be called transcendental, one in which the consciousness of the physician informs him that a mechanical obstruction within the heart exists, and that such an obstruction alone can give rise to the phenomena.

In all the lingering or sudden progressions of the accidental disorders supervening in endo-cardial coagulum, no purely cyanotic manifestations have met my observation.—*Philadelphia Medical Examiner, March* 1849.

[We have given the more important points of Professor Meigs' paper at some length, conceiving that the practical recommendation of so eminent an obstetrician must be looked upon as of the greatest value; nor do we suppose there is any obstetric practitioner of experience who cannot bear out his testimony in regard to the danger of sudden death in labour, from incautiously allowing a bloodless patient to assume the erect posture. We must, however, demur to the pathological speculations which he has interwoven with his paper, as being in most cases more than doubtful, and in some quite indefensible. We are not disposed to deny that clots may sometimes be formed before the heart has altogether ceased to beat; but we think the opinion that this is a common cause of death in labour, would require far more precise evidence, and a less "transcendental" diagnosis than that before us. The opinion that a white clot is necessarily formed before death, and a red one after death, cannot be for a moment maintained, if it be considered that the greater part of the colourless clots found in the vessels after death, are either colourless on their anterior, and coloured on their posterior surface, or colourless within the right ventricle, and coloured where they pass into the pulmonary artery. They often pre-

sent, too, casts of the valves of the pulmonary artery, such as to preclude absolutely the idea of their having been formed while the blood was in motion. We think it must be quite plain to most persons in the habit of seeing these clots, that they are, for the most part, formed in the same way as the buffy coat of the blood out of the body—*i. e.*, by subsidence of the blood corpuscles before coagulation has taken place; the extremely slow coagulation of the blood within the vessels after death favouring this process, in the same way as any of the numerous agents retarding coagulation favour the occurrence of the buffy coat.] W. T. G.

V.—MATERIA MEDICA AND THERAPEUTICS.

199.—*On the Employment of Nitrate of Silver as a Vesicant.* By M. DELVAUX.—The general action of nitrate of silver on the tissues seems to be to separate the hydrogen. When this salt is brought in contact with an organic body, it becomes decomposed into nitric acid, oxygen, and metallic silver in a molecular state. Silver is deposited, and this imparts to the tissue its coloration, whilst the oxygen of the oxide of silver and of the decomposed nitric acid takes up the hydrogen to form water.

When nitrate of silver is brought in contact with the skin, the effect produced varies according to the greater or smaller quantity of the salt employed. If the quantity be small it merely acts on the epidermic cells, which it disorganises. Metallic silver is reduced to a molecular state, and combines with their elements; the epidermic tissue assumes a blackish brown coloration, owing to the metallic silver itself, and after a time the tissue is detached and drops. Where the action of the nitrate of silver is continued for a longer period of time, the true skin itself becomes affected, the effect produced varying according to whether the disorganisation is merely on the surface or more deeply seated. In the former case, an abundant serosity raises the altered epidermic surface, and produces *vesication*. In the latter, the true skin being disorganised in its thickness, produces an eschar.

If now, we consider that the skin varies in thickness and sensibility in different parts of the body, and according to age, sex, &c., it will be evident that a certain tact is required to regulate the quantity of nitrate of silver necessary to disorganise the epidermic layers, and procure a vesicatory effect without disorganising the true skin. The principles by which the employment of escharotics in general is guided will suffice to prevent the occurrence of any unexpected results.

Without proceeding to enumerate all the diseases in which vesication by means of nitrate of silver may produce beneficial therapeutic effects, we will adduce a few cases in refutation of the objections that might be advanced against this form of application.

1. M. Claes, a patient in the hospital of des Vieillards, who was recovering from an attack of adynamic pleuro-pneumonia with parotitis. Complained on the 3d of September 1848, of severe pain in the left sub-scapular region, and in the lateral portion of the neck, along the trapezius muscle. The pains increased on the least movement. Exposure to a current of air had given origin to this rheumatic affection. The skin was cauterised in the sub-scapular region with a stick of nitrate of silver, moistened with water at the moment of its application. A bulla appeared in the course of an hour and a half; epidermis being removed, a slight degree of suppuration was established, and the pain entirely ceased as if by magic, at the end of about ten hours.

The cauterised spot had been dressed immediately after cauterisation with cold cream, and this was continued until the occurrence of cauterisation, which took place within the fourth day.

2. A man named Boufort, came to consult M. Uytterhoeven at the same hospital. The old man had suffered since the preceding evening from acute stitch in the side. The pains extended along the seventh rib towards the back. As auscultation did not reveal anything abnormal in the thoracic organs, the spot to which the patient referred the pain was cauterised with nitrate of silver, previously moistened with water. The pain disappeared as the operation advanced. A vesicle was produced in the course of an hour. A compress with cerate was applied to the wound. On the following day the pleurodynia was perfectly cured without the treatment being further continued.

3. The same method was immediately employed in the case of Marie Demaître, who had been attacked by pleurodynia in the left side of the thorax. The pain was so violent as to call forth loud cries from the patient. The cure was equally prompt and unexpected, and in the course of the

day the pain entirely disappeared. The vesication was treated in the manner usually adopted in the case of ordinary vesicants.

It only remains to add a word or two on the mode of operation of this vesicant. In order to avoid all chance of irregularity, it is necessary to rub the whole surface on which vesication is to be induced, lightly but equally with the point of the stick moistened with a drop of water, and to continue long enough until a grey coloration is produced. This effect is generally obtained in the course of a minute and a half. If a deeper action be required, owing to the thickness of the epidermis, or a more strongly marked therapeutic effect be sought, the operation must be repeated over the same surface and with the same precautions.

M. V. Uytterhoeven has always found this vesicant answer his expectations most fully, both in private practice and in the wards of the hospital des Vieillards.—*Nouvelliste Médicale Belge.*

200.—*Local Application of Nitrate of Silver in Catarrh.* By Dr Lockwood.—Dr Lockwood has found the application of a strong solution of nitrate of silver (ten grains to one ounce of water) to the Schneiderian membrane, a successful means of checking catarrh. This treatment is most effectual in the early stage of the disease, when the mucous lining of the nasal cavities is dry, tumid, and red.

The remedy is best applied with a camel's hair pencil.

The application is not painful, nor even disagreeable. Its immediate effect is to excite a copious serous effusion, which continues for some minutes. After this the nostrils are freed from the previous impediment to the passage of the breath through them, when the sensation of relief becomes at once manifest. With the subsidence of the local swelling, the general heaviness and *malaise* disappear. For some minutes, the inhalation of cold air communicates to the mucous lining of the nose a feeling of rawness. This, however, is of short duration, after which, unless the inflammation has extended beyond the Schneiderian membrane, the cure is complete.

To accomplish a radical cure, the solution should be applied at the very commencement of the attack. When the inflammation has extended to the pharynx, &c., it is no longer practicable to subject all the parts affected to local treatment. Dr L. has, however, applied the remedy in many cases where the disease had made several days' progress. Then, although no expectations were entertained of removing the symptoms of bronchial irritation which might have supervened, the relief to the head was always satisfactory, by the liberty afforded to the passage of air through the nostrils.—*American Jour. of Med. Sciences*, Jan. 1849.

201.—*Nux Vomica in Obstinate Constipation.* By M. Ossieur.—The author relates two cases of protracted constipation, in the treatment of which the nux vomica rendered important service. In the first patient, an adult female, the constipation had existed for five days, when M. Ossieur was consulted. Calomel, castor-oil, and purgative enemata were exhibited frequently, and in large doses, during four days, but without success in obtaining a feculent evacuation. She had vomited several times. Recourse was then had to the nux vomica, of which the patient was ordered twenty powders, containing each one-fifth of a grain, one of these to be taken every hour. After the fourteenth dose, she complained of borborygmi and of twisting colicky pains in the belly, which were soon followed by an evacuation of very hard stercoral matter, enveloped by mucus and some ascarides. The second patient, also a female, was seized suddenly with severe griping pains in the belly, which were soon accompanied by nausea and vomiting. These symptoms continued two days, during which period various purgative remedies were exhibited without effect. M. Ossieur, who was then called, suspected the existence of hernia, and on examination found a tense crural hernial tumour on the right side, which he reduced with difficulty. The vomiting and abdominal pains now ceased, but for three days the bowels were not opened, notwithstanding the repeated exhibition of castor-oil by the mouth, and of strong purgative enemata. M. Ossieur had recourse on this occasion, to the alkaloid strychnia, which he exhibited in powder along with sugar and calcined magnesia. A powder containing one-sixtieth of a grain of strychnia was administered every hour. After the sixth dose, the action of the drug was announced by active intestinal movements, and the bowels were freely evacuated after the seventh. Among the fecal matters expelled, there was one portion of almost stony hardness about an inch in diameter, and having the form of the intestine.—*Annales de la Soc. Méd. d'Emul. de la Flandre Occid.*, Dec. 1848, and *L'Union Méd.*, March 6, 1849.

[These cases are interesting, and the practice indicated merits a trial, but the drug may be given in much larger doses; indeed, we are surprised at the marked

effects obtained by M. Ossieur from the use of so small doses. In several cases of habitual constipation, we have exhibited strychnia, morning and evening, in doses gradually increasing from one-sixth to one-third of a grain, and in one individual this practice was completely successful. In the other cases a beneficial action was not obvious, but we have been informed of cases in the practice of other physicians where this treatment has been more fortunate. The addition of a small quantity of strychnia to an ordinary purgative pill is said to be useful, but it must be difficult to determine whether such addition be or be not beneficial. Very recently in the *L'Union Médicale* (1848, Nos. 138 and 139), M. Homolle published several interesting cases of apparent intestinal obstruction after the reduction of hernia, where good results were obtained by the use of strychnia in combination with magnesia. Whether the medicine stimulates directly the muscular coat of the intestine, or operates through the nervous system, we cannot at present determine.]

202.—*Inhalation of Medicated Powders.* —By Dr CHAMBERS.—While treating diseases in those parts of the mucous membranes which are sufficiently exposed to sight and touch, for the immediate application of remedial agents, there are few to whom the wish has not occurred that equal facilities were afforded of directly influencing the deeper-seated continuations of the same fabric. The powerful remedies which restore so rapidly to health the conjunctiva and the fauces, would probably act with equal quickness and success on the stomach or the bronchi, could we apply them rightly to the right spot, and attack the local disease without passing circuitously through the whole system. A mode I have lately adopted, Dr C. observes, of attaining this end with the most inaccessible mucous surface of all, the pulmonary, though it is clumsy and imperfect, may still be found useful in some obstinate cases where the upper part of the air-tubes are principally diseased. The plan is, the inhalation of a light innocuous powder, which may carry with it the required substance, either diffused in the air or absorbed in its pores. That which I have found well suited to the purpose is the pollen of the lycopodium, or club-moss, which has been made to imbibe as much as it would take up of a saturated solution of nitrate of silver, or of sulphate of copper, or of the two combined, and then carefully dried, and reduced again to an impalpable powder. Mr Squire has made me some, which, in two grains and a half, contains one grain of nitrate of silver, and another, which, in five grains, contains one of nitrate of silver and two of sulphate of copper.

The patient should introduce into his mouth, as far as he can without choking, a well-dried glass funnel, and draw in his breath strongly, whilst he himself, or a second party, dusts the powder in a dense cloud into the large end with a nursery puff-ball. If the dust be raised by an attendant, the patient can indicate the moment he inspires by raising his hand. To obviate the necessity for withdrawing the funnel during expiration, to prevent the dust being blown about the room, an apparatus may be used with a double valve and a closed powder-box, which allows the dust to pass inwards only; but the employment of metal makes the machine less agreeable than the more awkward but cleaner-looking and less formidable glass.

There is usually some coughing excited by the dusty vehicle, but not of such moment as to prevent the immediate repetition of the experiment. This is certainly an inconvenience, but it seems a much minor one than those which attend the introduction of a sponge into the larynx, as has been recommended. The spasm excited by this is distressing to the operator, and painful to the patient, and prevents its employment in slighter cases where the remedy appears to both as bad as the disease.—*Lancet.*

203.—*Vegetable Charcoal in Dyspepsia and Gastralgia.* By M. BELLOE.—The instinctive use made of this substance by chlorotic girls long ago, suggested its therapeutic employment in certain diseases of the stomach and intestines. It has recently been neglected, and, according to M. Belloe, unjustly. He states that all charcoals are not equally useful. M. Roland preferred the charcoal of the willow, but M. Belloe has found that of the poplar most efficacious. He administers it in powder, moistened with water, in doses varying from two to six teaspoonfuls daily, taken before or immediately after meals. It frequently cures dyspepsia, gastralgia, and especially pyrosis, and when it fails promptly to remove the disease, it diminishes the irritability of the stomach, and abates pain, nausea, and vomiting. The physiological effects are, an agreeable taste in the mouth, increase of the salivary secretion, improvement of the appetite, and easy digestion. It acts feebly as a laxative. Several interesting cases are detailed to illustrate these statements.—*Journ. de Méd. de Bordeaux*, and *Bull. de Thér.*, Feb. 15, 1849.

VI.—FORENSIC MEDICINE AND TOXICOLOGY.

204.—*On Animal Charcoal as an Antidote.*—By B. Howard Rand, M.D., of Philadelphia.—In the "Transactions" of the Medical Society of London, new series, vol. i.,[1] is a paper, by Dr A. B. Garrod, detailing some experiments, in which he employed purified animal charcoal as an antidote. This is prepared from ivory black, by digesting it in dilute chlorohydric acid to remove the earthy matters, afterwards washing and heating it to redness in a covered crucible. The subjects of his experiments were dogs, rabbits, and guinea-pigs. He administered large doses of opium, belladonna, aconite, nux vomica, delphinium, stavesacre, white hellebore, and their alkaloids, as well as digitalis, hemlock, tobacco, elaterium, ipecacuanha, hydrocyanic acid, cantharides, and arsenious acid, without injurious consequences, when sufficient animal charcoal was given simultaneously with them, or in some cases before the peculiar effects of the drug were developed. It also prevented, but less completely, the action of the bichloride of mercury, and of the salts of copper and lead.

Dr Garrod concludes from his experiments:—

1st, That animal charcoal has the power of combining in the stomach with the poisonous principles of animal and vegetable substances, and that the compounds thus produced are innoxious; therefore, when given before these poisons have become absorbed, it will act as an antidote.

2d, That animal charcoal will absorb some mineral substances, and render them inert; but so large a quantity of the charcoal is required, that it is not so well adapted for many poisons of this class as their own special antidotes; the effects of arsenic, however, appear to be better combated by this than by any other article.

3d, That a certain amount of animal charcoal is required, about half an ounce to each grain of morphia, strychnia, or any other alkaloid; but, of course, much less for the substances from which they are obtained, as opium, nux vomica, &c., a scruple of nux vomica not requiring more than half an ounce of charcoal.

4th, That the antidote itself exerts no injurious action on the body.

The method of preparing pure animal charcoal from ivory black, before mentioned, is tedious and wasteful, only ten per cent. being obtained, while the amount of acid used is considerable. A very good and pure charcoal is obtained by calcining leather scraps or blood with pearl-ash, washing and re-heating in a close crucible—it was this kind of charcoal which was principally used in the experiments to be detailed. Much of the discrepancy of experimenters with this substance is undoubtedly due to their use of an impure specimen of it.

With a view of ascertaining more accurately the value of the proposed antidote, the writer performed a number of experiments, from which the following are selected as having the most direct bearing upon the subject:—

1. One grain of pure morphia was swallowed with about an ounce of pure animal charcoal, in warm water; no narcotic symptoms supervened, but there was some gastric irritation, which subsided in the course of the day.

2. One grain of sulphate of morphia was digested with pure animal charcoal until all bitterness was removed; the liquid, filtered off and swallowed, produced no effect.

3. Ten grains of extract of belladonna were swallowed with two drachms of the charcoal; there followed vertigo, dilated pupils, dimness of vision, exceeding dryness of the throat, and desire to sleep, all of which symptoms were relieved by the spontaneous vomiting of a very acid matter, and the use of stimuli. The pupil remained dilated through part of the next day.

4. The last experiment was repeated, an antacid having been premised, and the proportion of charcoal being doubled. Some dryness of the throat followed, but with no other symptom of the influence of the drug.

5. Fifteen grains of powdered digitalis were taken, with three drachms of the animal charcoal, without the slightest disturbance of the functions.

6. Twelve drops of the officinal hydrocyanic acid were swallowed, with two drachms of the pure charcoal, without a sedative result.

7. One grain of strychnia, dissolved by the aid of a drop of chlorohydric acid, was digested with animal charcoal until all bitterness was removed. The solution, filtered and swallowed, produced no effect; a similar solution, evaporated and tested with nitric acid, gave no red tinge.

8. One grain of strychnia was swallowed, with an ounce of pure animal

[1] Condensed in Braithwaite's Retrospect vol. xiii.

charcoal; no effects due to the strychnia could be perceived.

9. The purgative extracts were next tried, but produced no effect when sufficient animal charcoal was taken.

10. Camphor and musk were removed by animal charcoal from their tinctures, so far that they did not precipitate on the addition of water.

11. Phosphorus was removed from its ethereal solution by the charcoal.

12. Iodine was so far removed from its tincture and compound solution as not to strike a blue colour with starch; and the iodine could not be liberated from the animal charcoal at a red heat.

13. Arsenious acid and a solution of arsenite of potassa were apparently unaffected, either in the hot or cold solution, by animal charcoal. This result, although it agrees with those of MM. Wapen and Graham, does not with the observations of Dr Garrod, who states that animal charcoal "has greater power of removing arsenic from its solution than the hydrated sesqui-oxide of iron."

14. A solution of the bichloride of mercury, being treated with animal charcoal, gave, on filtration, no precipitate with ammonia.

In conclusion, we are perhaps justified in drawing, from the present state of our knowledge on this subject, the following conclusions:—

1st, That animal charcoal has the power of withdrawing, when used at a proper temperature and in sufficient quantity, most, if not all, known vegetable and animal poisonous principles, and certain mineral poisons from their solutions.

2d, That, given at the same time with, or shortly after these poisons have been swallowed, it prevents their deleterious action.

3d, That given in cases of poisoning, it can exert no injurious influence, but, on the other hand, promotes vomiting, entangles the poison, and protects the coats of the stomach against it.

4th, That although it cannot be substituted for the usual antidotes in poisoning by mineral substances, yet it may be usefully employed in conjunction with them, or in their absence.—*Medical Examiner*, Sept. 1848.

205.—*Poisoning with the Essential Oils of Nutmeg and Cinnamon.* By Prof. D. MITSCHERLICH.—The oil of nutmeg was exhibited by the stomach to four rabbits. It is a poison of considerable activity: six drachms were fatal to a large rabbit in thirteen hours and a half; two drachms in five days; one drachm killed a young animal in thirty hours. As a poison it is of nearly equal strength with cinnamon oil, weaker than the oils of mustard, savine, and carraway, and stronger than the oils of fennel, turpentine, juniper, and copaiva.

The symptoms of poisoning with nutmeg oil in the rabbit were—increased frequency and strength of the heart's pulsations, accelerated respiration, at first restlessness, later muscular weakness, very slight or no change of sensibility, and feculent evacuation; as the poisoning advances, gradual failure of the circulation and respiration, diminution of temperature, and death without spasms. There was no diuresis, but the urine was bloody, and had a very peculiar aromatic odour, different from that of the oil itself. On opening the bodies, the odour of the oil was distinctly perceived in the abdominal cavity. In the stomach and intestines were found the usual indications of irritant action. The state of these organs, however, was not sufficient to account for death, which the professor attributes to the absorption of the oil, and its action on the system.

Applied to the skin on the back of the hand, nutmeg oil produces, in from ten to twenty minutes, burning heat and redness. In this respect it is weaker than mustard, and stronger than cinnamon oil.

The symptoms and post-mortem appearances in the rabbit from poisoning with cinnamon oil, are similar to those already described as occasioned by nutmeg oil. The smell detects the oil of cinnamon readily in the blood, urine, and peritoneum.—*Schmidt's Jahrb.* Nov. 1848, p. 156.

206.—*Poisoning by the Tincture of Colchicum. Recovery.*—M. LEROY DES BARRES has reported to the Academy of Medicine, the following case of poisoning by colchicum.

A female, æt. 57, suffered from pain in the epigastrium. Her medical attendant prescribed for her *an ounce* (30 grammes) of tincture of colchicum, of which she was to take a tea-spoonful night and morning in a simple julep of taraxacum. Before commencing this treatment, she was directed to take a purgative draught, composed of syrup of buckthorn and sulphate of soda. By some unfortunate mistake, the whole of the tincture of colchicum was swallowed instead of this draught. In five minutes she felt severe pain in the stomach and bowels, and there was great anxiety; in this state she was seen by M. des Barres. Her face was pale, the features contracted, and the eyes sunk. The pain

in the abdomen was very severe. She vomited once a glairy mucus-like matter, and this was followed by several liquid, dark-coloured stools, accompanied by violent colic. The patient complained of a sense of suffocation and strangulation. The pulse was weak, and only fifty in the minute; the extremities were cold; vision was not affected, and the intellect was clear. There was neither headach, vertigo. thirst, nor dryness of the mouth or fauces, Small doses of tartar emetic were exhibited; these brought away a yellowish-coloured liquid, having a spirituous odour like that of the tincture of colchicum. Vomiting was promoted by draughts of warm water, and the patient then took the iodurettted water recommended by M. Bouchardat: this appeared to relieve the cramps in the stomach and the colicky pains. In about an hour the dose of iodurettted water was repeated. In two hours the patient was suffering from incessant vomiting, with cramps in the muscles of the legs and arms. The extremities were cold, and the hands and arms had a livid hue. Frictions were employed, stimulating poultices were applied to the abdomen, and sinapisms to the feet. The patient still continued to take occasional doses of the iodurettted water. Thirteen hours after the poison had been swallowed, the woman was suffering from great prostration of strength, vomiting, diarrhœa, cramps in the limbs, twichings of the tendons, great agitation, and severe pain in the abdomen. The pulse was 65. Only a few drops of urine had been passed.

On the following day the symptoms continued, the pulse having risen to 90. The heat of the body was more equally distributed; the tongue was dry, thirst intense, and there was entire suppression of urine. The cramps and convulsive motions of the limbs with the feeling of strangulation, had disappeared. Leeches were applied to the abdomen, and emollient medicines prescribed.

In the afternoon the patient had considerably improved, and urine was freely secreted. On the fifth day the fever had disappeared, but there was still some diarrhœa. In the course of a week or ten days the patient had entirely recovered.—*Journ. de Med. de Bourdeaux*, 1848.

207.—*Calcined Magnesia against the Poisonous Effects of Arsenic.* By Emory Bissel, M.D., of Norwalk, Conn.—Peter Galpin, a labourer, aged twenty-seven, a powerful and robust young man, of intemperate habits, attempted suicide on the evening of the 4th of March last, by taking arsenic. As is often the fact, he was prompted to the deed by those horrors and remorse of conscience which so often succeed a debauch. The quantity taken, as nearly as could be determined, was not far from a scruple. When I was first apprised of the fact, two hours had elapsed from the time it was taken. I hastened the messenger who came for me as quickly back as possible, with some thirty grains of sulphate of zinc—in two doses—with directions to administer it as soon as he could reach home on horseback—distant about one mile—to give the second parcel in ten minutes, if needful. I followed as expeditiously as I could: when I arrived he had vomited freely twice, but without any relief. The family had given him copious draughts of a weak infusion of tobacco, which produced no other effect than to increase his sufferings, which at this time were extreme; so much so, that he begged me to kill him at once, if I could not end his pain any other way. His pulse was one hundred and thirty per minute, small, and wiry. He complained of great constriction and dryness of the fauces, but chiefly of a most agonizing pain and burning in the stomach; it seeming, as he expressed it, "as if it were filled with burning coals." As nearly three hours had now elapsed since the poison had entered the stomach, I considered that any further effort to evacuate it would be futile, and that, if life was saved at all, it must be by the antidotal power of some medicinal agent. Having had my attention directed to the experiments of Prof. Peter of Transylvania University, and the case of Lepage published in January and April Numbers of this Journal, in 1847, I determined to give the calcined magnesia a fair trial, and accordingly put it up in drachm doses, to be given every hour mixed in milk and water. During the hour which I remained with him, his symptoms were becoming more unfavourable. The pulse was one hundred and fifty per minute; the constriction and dryness of the fauces extreme; the whole surface bedewed with perspiration; the pain and burning sensation in the stomach seemed augmented to the highest possible degree, whilst the right hand was entirely paralysed: in short, every thing betokened a speedy dissolution. I left him at ten o'clock, in charge of the mistress of the family, whom I knew to be an intelligent and faithful nurse. On visiting him the next morning, instead of finding him dead, as I much feared, I was most happily surprised to find him very quietly dozing in an easy-chair. I learned from the lady, who had been unremitting in her care of him dur-

ing the whole night, that in a very few minutes (not more than five or ten) after taking the first dose of magnesia, he said he felt much relieved, and before the time for the second dose he had fallen into a doze. She stated, that each successive dose had produced the most surprising and marked mitigation of every symptom, and that long before morning he was entirely freed from suffering, and had, on the whole, passed a quiet and comfortable night. The bowels had moved freely and easily twice during the time. He complained of nothing save a general weakness, and a sort of faintness at the pit of the stomach. The right hand had recovered its power, and the pulse had fallen to eighty-five per minute. Directed to continue the magnesia through the day, once in four hours, and to give light nourishment. On the sixth I made my first and last visit, as the young man seemed to require nothing but nursing, and a little time, for the recovery of his strength. I have since learned, that in a very few days he resumed his labour upon the farm, and felt no inconvenience from what he had taken, except a muscular weakness of the lower extremities, which was not very great. The case, in some of its aspects, much resembles that of Lepage, especially in the prompt and efficacious effects of the remedy, and the speedy recovery which followed. Should future cases yield results as gratifying as these two, we may indeed congratulate the profession in the possession of a sovereign and prompt antidote, always at hand, and easily administered, to the dreadful poison by which such numbers of our race have found a terrific and agonizing death.—*Amer. Jour. Med. Sciences*, 1848.

208.—*Recovery from the Effects of a large Dose of Digitalis.* By M. DE COLLEVILLE.—A woman, æt. 68, while suffering from œdema of the lungs, and when nearly convalescent, was ordered to take an infusion of the dried leaves of digitalis, in the proportion of (60 centigrammes) 9¼ grains in a quart of water. The druggist by some accident used (15 grammes) 231½ grains. This was infused in eight glasses of water, and administered to the patient in divided doses. She was soon attacked with great uneasiness, nausea, bilious vomiting, confused vision, amounting to blindness, ringing in the ears, vertigo, convulsions, and syncope. The face was pale; there was great coldness of the skin, with palpitation; thready, slow, and intermittent pulse, and pain in the abdomen. These effects were produced by four doses of the infusion. A physician who saw the patient early the following morning, found her in a highly dangerous condition. He prescribed saline enemata, sinapisms with warm bottles to the feet, and frictions with camphoretted spirit to the skin. Strong coffee was administered internally. In six hours there was no apparent amendment; the vomiting, convulsions, and fits of syncope continued; but the difficulty of breathing under which the patient had previously laboured had entirely disappeared; there were no longer symptoms of œdema of the lungs, and the chief object then was to counteract the effects of the poison. Syrup of orange-peel and other simple medicines were prescribed, and an enema of assafœtida and camphor administered. Three days after the accident the vomitings were less frequent, and the syncope and convulsions had ceased; but there was still vertigo, with ringing in the ears and hallucinations of vision. In six days the patient had perfectly recovered from the effects of the poison.—*Jour. de Méd. de Bordeaux, and Med. Gazette*, May 11, 1849.

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MONTHLY RETROSPECT

OF THE

MEDICAL SCIENCES.

JULY, 1849.

CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

209.—*Bowman on the Eye.*—As promised in the review, we now proceed to notice the more interesting of Mr Bowman's observations.

In addition to the three structures usually recognised composing the *Cornea*, viz., the conjunctival covering, the thick laminated cornea or cornea-proper, and the thin elastic cornea behind ; a fourth, "the anterior elastic lamina," is described as forming the front of the cornea proper, and supporting the conjunctival epithelium. The division of the *cornea proper* into layers is known to be artificial, their number varying with the dexterity of the dissector. Under the microscope, Mr Bowman finds that these lamellæ, as seen at any one part in a vertical section, are about sixty in number, but each does not extend far across the cornea, as they run into each other at numerous points. The layers are united to each other by a delicate membranous tissue, disposed vertically, which is seen to be torn across or divided in separating the lamellæ. Some years ago he first discovered a definite tubular arrangement of the interstices of the corneal tissue. They are more easily seen, on injecting with mercury, in the larger animals than in man. After running parallel for a short distance, they join at an angle with others which cross them above and below. They lie between the delicate laminæ, and their walls are formed by the membranous tissue which joins the laminæ to each other. They present a varicose or jointed appearance. In the human cornea their length between the constrictions may be $\frac{1}{12}$ of an inch, but is often less, and their size is from $\frac{1}{500}$ to the $\frac{1}{600}$ of an inch. These are not to be regarded as a regular system of canals like vessels, but they may rather be compared to the areolæ between the interweaving bundles of filaments of the cellular tissue, all of which communicate, so that the tissue may, like the cornea, be readily permeated by a thin fluid. It is concluded that fluid does not exist in the cornea to a greater extent than, as in

cellular tissue, is sufficient merely to lubricate the interstices, and, therefore, the opacity which occurs when the cornea is stretched, cannot be accounted for by the displacement of a fluid, as is by some supposed.

The *conjunctival layer* is described in man as presenting only from three to four layers of epithelial cells, at first more columnar and becoming flattened at the surface, and resting on the anterior elastic lamina, as on a basement membrane ; although Valentin has described, subjacent to the epithelium, a layer of blood-vessels, as representing the corresponding layer of the integumentary system. In man, Mr Bowman finds the conjunctival layer $\frac{1}{500}$ of an inch in thickness, but it is much thicker over the cornea of the larger animals, as in the sheep and calf, where we have found eight to twelve layers, as is likewise represented by Henle and Gerlach ; and in the fish, where there are no lids, a very thick, but still perfectly transparent conjunctival membrane may be pinched up over the cornea, to which it is indeed very loosely united.

The *anterior elastic lamina* of Bowman has not hitherto been known to anatomists as a distinct structure. "It is a continuous sheet of homogeneous membrane, nearly similar in essential characters to the posterior elastic lamina of the cornea and the capsule of the lens, being perfectly transparent and glassy, without appearance of internal structure, and being very slightly, or not at all, influenced by acids or boiling." From its deep surface it sends down, among the four or five anterior lamellæ, innumerable delicate filaments, which pass in a slanting direction, decussating. As it is thus tied down to the lamellated cornea, it cannot be raised like the posterior elastic layer, and hence the reason, as Mr Bowman observes, that it has hitherto escaped the notice of anatomists. It is in this tissue, he thinks, that the small hard foreign bodies are impacted, which stick more tenaciously on the front of the cornea than might be expected were they imbedded only in the soft and pulpy conjunctival epithelium, or in the lamelatted tissue. The thickness of this layer in man is from the $\frac{1}{1200}$ to the $\frac{1}{2000}$ of an inch. But it is thicker than the posterior elastic lamina ; although it may surprise those who have been in the habit of raising the latter, or of seeing it raised, for demonstration, with very ordinary instruments, to learn that it is only from the $\frac{1}{2000}$ to the $\frac{1}{3000}$ of an inch in thickness ; a statement, regarding which, we confess to have taken the micrometer's confirmatory evidence.

The arrangement at the margin of the cornea, by which it becomes continuous with the sclerotic, is minutely described. The interlacing bundles of fibres of the sclerotic are directly continuous with the lamellæ of the cornea. The anterior elastic lamina becomes thinner and sends more numerous filaments inwards to the lamellæ, and at the margin it is lost, having expended itself in filaments which pass into the sclerotic. The posterior elastic lamina is believed by some to extend over part, or the whole, of the aqueous chamber, and by others not to be more extensive than the cornea itself. Mr Bowman finds that at or near the margin it becomes thinner, and, instead of the homogeneous structure, without union by fibres to the cornea proper, which it presents elsewhere, it now gives forwards, and from its extreme margin, fibres of the yellow elastic variety, which have a plexiform arrangement, and a three-fold distribution. The most anterior pass into the sclerotic, after leaving between them and the fore part of that membrane, a flattened space, usually known as the circular sinus of the iris or canal of Fontana ; the most posterior curve backwards from the circumference of the anterior aqueous chamber, and, in the form of small pillars, join the iris at its circumference ; and the middle set, much the greatest in number, pass outwards to the ciliary ligament or muscle. The latter observation explains what we have noticed, that the ciliary ligament on being raised from behind, will bring away with it the posterior elastic lamina. This is seen after making a transverse section of the eye someway behind the iris, and separating the ciliary body and iris, which come away together. If, then, the ciliary ligament, or muscle, be detached from the sclerotic, it will carry with it the elastic cornea. This is well seen in the bird's eye, but also in the mammalian after some maceration.

Notwithstanding that various observers have described blood-vessels in the cornea in its healthy condition, and although it is a common belief with those who still admit the existence of "serous blood-vessels," that such exist in the cornea, Mr Bowman finds unequivocal proof that none encroach far beyond its border. All the vessels sent forwards by the conjunctiva and sclerotic, on arriving within the corneal tissue, form arches and return. The cornea is thus dependent on the circumferential parts for its nutrition ; and this comparative feebleness or slowness of the nutritive process in this tissue, renders it liable to suffer early in certain depraved states of the constitution, becoming hazy or actually

sloughing, as the cases related by Mr Bowman and others amply show. Simple wounds of the cornea are found, if not too extensive, readily to heal by the first intention, without the approach of blood-vessels to the wounded part. Even in a few hours, as he has observed in the case of the lower animals, minute nuclei or cytoblasts, which naturally exist but sparingly in the corneal tissue, are seen to abound in the tissue near the wound, which they soon fill up, and these elements are gradually transformed into products resembling the tissues among which they are laid down. The milky opacity at the wound now disappears, and the increased vessels at the part of the border of the cornea nearest to the puncture, resume their former size. But when the adhesive process fails, union takes place by a species of granulation resembling that in skin or mucous membrane.

As to the development of blood-vessels in the cornea, which is so frequently seen as a diseased condition, Mr Bowman observes that, in the case of an ulcer, there is first observed, stretching between it and the nearest vessels, a greyish semi-transparent tract, from the deposition of the new matter out of which the future vessels are to be constructed. These become developed, and serve to expedite the reparative action by furnishing an immediate supply of blood. As the healing process advances, these vessels dwindle and soon disappear, and the transparency of the part returns. When, as a result of long continued inflammatory action, vessels are developed in the form of a network on the front, he believes that they lie below the anterior elastic lamina; but when they render the cornea of a uniform dull red, that they pass into the lamellated tissue from the sclerotica. In these conditions, he regards the vessels not as the disease, or essentially a part of it, although they indicate its presence and extent, but as the means by which the cornea is enabled to bear up against and get rid of the morbid action, under which its vitality would otherwise sink.—(*To be continued.*)

210.—*Production of Sugar in the Urine by wounding the Brain.* By M. Bernard.—On the 26th of March 1849, M. Magendie announced to the French Academy a very important and entirely unexpected discovery made very recently by M. Bernard. M. B. has found that by wounding a certain part of the floor of the fourth ventricle, the composition of the urine becomes altered, and sugar makes its appearance in it.

The puncture is made by passing the instrument through the inferior orifice of the ventricle, and soon afterwards the urine of the animal (a rabbit), which before the operation is turbid, alkaline, and free from saccharine matter, becomes abundant, clear, and contains in solution a very large quantity of sugar, and resembles that of diabetes. In general, not more than an hour and a half or two hours are requisite for the complete production of this change in the characters of the urine. The blood also contains a large amount of sugar.

The experiments have hitherto been made upon sixteen rabbits; and by varying them, M. Bernard has found that the part of the fourth ventricle which must be wounded to produce this remarkable phenomenon of the appearance of sugar in the blood and urine was very limited, and corresponded to a space situated a little above the origin of the eighth pair of nerves.

These results, which are so surprising from their novelty, cannot at present be in any way explained. They merely serve to show the remarkable influence which the nervous system exerts upon the functions of nutrition; and in this light they deserve the serious attention of chemists.

The experiments, which have also brought to light some other interesting particulars, are being continued upon animals of different kinds, and placed under various circumstances. M. Bernard hopes soon to be able to lay the results before the Academy—*Chem. Gaz.*, May 15, 1849.

211.—*On the Injection of various Substances into the Veins.* By Drs Manzolini and Quaglino, of Milan.—The municipality of Milan having placed at the authors' disposal a large number of stray dogs, they took the opportunity of injecting various substances into the veins—as pus of various descriptions, blood abstracted for different diseases, and a variety of putrefying animal substances. They then experimented with a variety of poisonous and medicinal agents—as arsenic, corrosive sublimate, iodine, digitalis, quinine, &c. The following are the principal conclusions:—

1. Pus, whether syphilitic, variolous, or tubercular, does not induce corresponding specific affections in the organism of brutes, but constantly determines a gastro-enteritis and enlargement of the mesenteric glands. 2. Recent blood, though abstracted from patients with fever, small-pox, &c., exerts no effect on the health of animals. 3. The inorganic irritating poisons exert their action on the alimentary canal, inducing generally a gastro-enteritis. 4. This predilection for the intestinal tube seems to be due to the

facility with which it becomes an eliminatory organ, by reason of its vast superficies and its easy communication with the exterior. 5. The action excited by pus transported into the circulation explains the colliquative diarrhœa and other gastro-enteric disturbances which individuals suffering from large and old suppurating wounds, open cancer, phthisis, empyema, phlebitis, and gangrenous typhus are liable to. 6. Putrefying substances exert the same effects upon the canal as the irritant poisons. 7. Gastro-enteritis is not met with in those animals which die soon after the injection of these bodies. 8. All poisonous substances, organic and inorganic, whether introduced into the circulation by the veins or by the digestive apparatus, constantly effect an alteration in the crasis of the blood. 9. That these poisons may exert their action upon the nervous system, it is requisite they should be transported into the circulatory current, the affection of the nervous centres being only secondary; in fact, when the stomach has been deprived of the influence of the par vagum by section, the same results are obtained as when this is uninterfered with. 10. *Vegetable poisonous substances* and their alkaloids, however, attack the nervous system in preference to the digestive tube. Some especially affect the brain, as opium; others the cerebellum and medulla spinalis, as the ethers; and others the medulla spinalis alone, as strychnia, quinine, *Lolium temulentum*, &c. 11. Two substances acting upon the same portion of the nervous system, but producing phenomena peculiar to each, when they are given simultaneously, do not confound their actions, but simultaneously manifest their proper phenomena. Thus by giving strychnia to a dog labouring under the tremors produced by *lolium temulentum*, we engraft upon these the tetanic spasms peculiar to the alkaloid. 12. The venous and arterial tree is always found normal, whatever be the substance injected by the veins or administered by the mouth. 13. The remedies known as the narcotics and narcotico-acrids of authors (as aconite, belladona) never induce gastro-enteritis, however introduced. 14. Dilatation of the pupil may be induced by remedies which act on the encephalon, as well as by those which act on the medulla spinalis. In the first case it is due to the torpor which the narcotic substances produce in the nerves of the third pair destined for the motion of the circular fibres of the iris, by which these antagonize the radiated fibres receiving their motor power from the cervical nerves. In the second case the midriasis depends upon the spasm, or excess of excitement, of these last nerves.—*Gaz. Medica di Milano*, 1847, No. 46; and *Brit. and For. Medico-Chir. Review*, January 1849.

212.—*On the Estimation of Urea.* By M. MILLON.—M. M.'s process consists in the conversion of urea into carbonic acid and azote by means of an oxydising agent (nitrate of mercury), and the subsequent estimation of the urea by the amount of the gaseous products. The nitrate of mercury which Millon uses is made by acting upon 125 parts of mercury with 168 of commercial nitric acid, and then, when the action is complete, he adds twice its bulk of water. In this condition the solution is kept, and it is always ready for analysis; to effect which, he takes a glass balloon of a capacity of from 150 to 200 cubic centimetres, and introduces into it, by means of a pipette, from 40 to 45 cubic centimetres of the mercurial solution. On this he pours from 15 to 20 grammes of urine, and washes down that which soils the neck of the balloon with a little distilled water; then he shakes the balloon so as to mix the contents, and immediately adapts a carbonic-acid apparatus containing caustic potash. The reaction of the nitrate of mercury commences even in the cold, but it is assisted and rendered complete by raising the mixture to the boiling point. The weight of the carbonic acid produced is, to that of urea, as 1 is to 1·371. M. Millon states that the process is most constant, and that there are no variations in the results, notwithstanding that uric acid, hippuric, oxalic, acetic, lactic, or butyric acids are present, and that neither albumen, sugar, or colouring matter of the bile will have any influence on the products.—*Comptes Rendus*, xxvi., 1849—*and Brit. and For. Med. Chir. Review*, April 1849.

II.—PSYCHOLOGICAL MEDICINE.

213.—*Visit to the Abendberg Cretin Establishment.* By Dr FORBES. — In the course of a month's tour through Switzerland, in the summer of 1848, the author visited and inspected the interesting establishment of Dr Guggenbühl. He agrees

with Dr G. in considering cretinism to be a truly physical disease—the mental incapacity depending on the imperfect development of the bodily organs, and of course mainly on that of the brain. This being acknowledged as the cause, the treatment requisite is apparent, and is carried out, when, says Dr Forbes, according to the beautiful and most philosophical principle which is adopted by Dr Guggenbühl as the indispensable basis of all his practice, the infant cretin is removed from the low close valleys in which its malady originates to the free, dry, cool, bracing air of the open yet comparatively sheltered and sunny slopes of the Abendberg. When thus removed from the influence of those deteriorating causes which were previously in full operation, the few simple restorative means, long recognised as alone beneficial, can, with a far greater hope of success, be employed; these are, plenty of good food, exercise in the open air, friction of the surface, bathing, moderate mental exercise, cheerful occupation, comfort, and happiness, together with such auxiliaries as medicine can supply. In adopting this practice most gratifying and important results have been obtained. Besides endeavouring to improve the physical powers, Dr Guggenbühl is constantly employing measures intended to act directly in developing the mental faculties. When of a fitting age his pupils must attend the school-room for certain short periods of the day. Dr Forbes was witness to the examination of three or four of the more advanced pupils, and speaks highly of the amount of real knowledge that had been acquired, as well as of the gratification which its acquisition, and the conscious possession of it, evidently conferred on the respective pupils. On one very important point Dr Forbes holds a different view from that of the founder of the Abendberg. Many cases regarded by the latter as examples of cretinism, Dr Forbes believes to be in no respect different from the ordinary idiot of this or any other country. The author's observation in different parts of Switzerland appears to have satisfied him, that the distinction between these two classes is not sufficiently regarded. In respect to the connection subsisting between goitre and cretinism, Dr Forbes is inclined to think that it may very possibly be an essential one, inasmuch as they may be both owing to the same cause, or to a modification of the same cause. In making numerous inquiries respecting cretinism in Switzerland and Piedmont, the author was much struck with the illustration it afforded of the influence of habit in modifying some of our strongest instincts and passions. The mother of an idiot, even in the lowest classes in England, feels the imperfection of her child to be the greatest of personal misfortunes; she looks upon the affliction as of too awful a nature to be thought of, except with a solemn humility; and does all in her power to conceal it from the world. Nothing of this exists in Switzerland. On the contrary, the neighbours, companions, and relatives, sometimes even the fathers and mothers of cretins, had not only no delicacy in showing them, but seemed to make their unhappy oddities a subject of mirth; inquiries in regard to, and personal examination of, the poor creatures themselves, were regarded as essentially odd and ludicrous.—*A Physician's Holiday, or a Month in Switzerland.* By J. Forbes, M.D., F.R.S.

214.—*On Cretinism.* By M. Faucon-neau-Dufresne.—Those labouring under this loathsome affection are divided by Dr Guggenbühl into four classes; 1st, the atrophied; 2d, the rickety; 3d, the hydrocephalic; and, 4th, the congenital cretins. In the 1st class (atrophique) the spinal marrow is chiefly the seat of disease, characterised by paralysis and wasting of the extremities. In the 2d class (rachitique) there exist softening and deformity of the skeleton. In the 3d (hydrocéphalique) there is a tendency to hydrocephalus, with certain symptoms of paralysis. In the 4th (congénital) there exists a very striking disproportion between the trunk and the extremities. The organs in this class are found diseased in very different degrees, and the affection of the mind may vary from simple dulness or heaviness to the most complete idiotcy. One variety of cretinism is distinguished by Dr Guggenbühl under the name of dumb cretinism. Those included under this class, though wanting the sense of speech, possess a much more intelligent expression, and a superior general appearance, to other cretins. They are capable of sustained attention, and for the conveyance of their thoughts, employ gestures sufficiently expressive. This form of cretinism prevails in the canton of Grisons and in the valley of the Rhine, which forms part of the canton of Saint-Gall. Imperfect growth and undue development of certain parts of the body, form striking features in another variety of cretinism. Such are the different forms manifested by those labouring under cretinism, as recognised and described by him, who, animated by the highest philanthropy, has devoted himself to the treatment and education of these wretched beings. M. Faucon-

neau-Dufresne concludes his account by paying a very high tribute to the devotion and disinterestedness of Dr Guggenbühl.—*L'Union Médicale*, Mars, 1849.

[On the occasion of a late visit to this country, Dr Guggenbühl placed in the hands of Dr Coldstream, for publication, several documents relating to the history of his enterprise, these, along with an excellent introduction from the pen of Dr Coldstream, have lately appeared in the form of a small duodecimo. This little work we recommend to the perusal of our readers.]

215.—*On the Employment of Opiates in the Treatment of Mental Alienation.* By Dr MICHEA.—The question as to the propriety of the administration of opium in insanity has for a long period divided the profession. Some, among whom are Lazare, Rivière, Daquin, Cullen, Odier, Sutton, and Perry, maintaining the salutary effects of its exhibition; while others, and with these Valsalva, Morgagni, Lorry, &c., have entirely proscribed it, regarding it as, in such cases, a most dangerous remedy. According to the latter, opium increases the delirium and agitation of maniacs. The incontestible utility of opium, and the promptness of its action when used in the treatment of delirium produced by abuse in spirituous liquors, has suggested to the author the idea of verifying if this remedy be advantageous or admissible in the treatment of disorders of the mind arising from other causes. He has prescribed it in very many of the forms of disordered mind, among others in mania with paralysis, in acute and chronic mania, in monomania, in hallucinations, and in acute dementia.

In insanity accompanied by general paralysis, the exhibition of opium has always appeared prejudicial; in those individuals where the memory and imagination still retained some traces of vivacity, it caused a momentary increase of delirium, to which succeeded a state of decided intellectual depression. In all it produced drowsiness, injection of the eyes, congestion of the features,—in short, most of those symptoms which indicate the occurrence of cerebral congestion, a frequent intercurrent disease among the insane affected with general paralysis.

The varieties of mental alienation in which the employment of opium has appeared really useful, are—chronic mania; monomania, whether simple or complicated with hallucinations; lastly, acute dementia. In support of this statement the author adduces four interesting cases.

In regard to the action of the remedy, the author believes opium to exercise its influence on the ganglionic system of nerves, and also on the cerebro-spinal system. It produces two distinct actions, not occurring successively, nor the one as a consequence of the other, but both direct and simultaneous; it depresses and it stimulates; it is, at the same time, a sedative and an excitant.

Referring to the fact which experience has amply established, that the subjects of mania are more frequently cured than monomaniacs, and those labouring under acute than those under chronic mania, the author thus illustrates the propriety of the exhibition of opium when exercising its stimulant action. Opium, he says, is a stimulant of the cerebral lobes, it tends, consequently, to increase the delirium, and for the same reason its tendency is to transform the partial derangement of the intelligence (monomania) into the more general one (mania)—to cause an acute form of mania to supervene on a more chronic one.

To obtain, in the treatment of insanity, an advantageous result from the exhibition of opium, it is necessary to administer it without interruption during a certain period, during at least from eight to ten days, and further, in gradually increasing doses. The preparations of the remedy the author makes mention of, are—laudanum, the extract (extrait gommeux), and morphia. Of the former, the commencing dose was twenty drops, on the second day raised to thirty, on the third to forty, and so on, increasing ten drops daily, until the number of a hundred and twenty has been reached; this he has rarely exceeded. Of the extract he has prescribed, as a first dose, five centigrammes, increasing it daily by three centigrammes, until the dose is six or seven decigrammes. As to morphia, one centigramme has been the dose, and he has rarely prescribed more than one and a-half. With the exception of occasional attacks of vomiting, which need excite no alarm, the insane have borne opium well. The employment of the remedy should not be continued from beyond ten to fifteen days; if before the lapse of this period its salutary effect has failed to be produced, its subsequent administration will not prove more favourable, and may even give rise to symptoms of cerebral congestion. — *L'Union Médicale*, Mars, 1849.

216.—*Case of Mania in a Child six years old.* By Mr MORRISON.—Unsoundness of intellect in children generally manifests itself in one or other of the forms of idiotcy. The following case of un-

doubted mania occurring in a very young child, has recently been recorded. F. A., æt. six, the daughter of an old furniture broker, was admitted into Bethlehem Hospital on the 30th of August 1842. Her education was good for her years, and she never, in any way, gave her friends reason to suppose that she was deficient in intellect. There existed in the family no hereditary tendency to insanity or epilepsy. The immediate cause of the attack was stated to have been inflammation of the brain, preceded by a fit of convulsions. From her previous history, it appeared that since the age of eighteen months she had been subject to the occasional recurrence of these fits—that they first made their appearance in consequence of teething. Immediately preceding her admission into Bethlehem Hospital, she had been treated in St George's Hospital for inflammation of the brain. At the period of her becoming an inmate of the former, her conduct was violent and mischievous, striking those about her, tearing her clothes, and destroying everything within her reach. She was generally incoherent in her speech, repeating any words she might hear in a monotonous voice, and without appearing to understand them, such as, "Poor thing, poor thing!" Occasionally, however, by strongly arresting her attention, a correct reply could be obtained from her. The expression of her countenance was quick and animated; her general health was good, and she ate and slept well. Sixteen days after admission she was attacked by diarrhœa of a mild character, from which she soon recovered. Shortly afterwards a considerable improvement began to take place in her general behaviour. She gave over many of her mischievous tricks; but still continued decidedly insane. She could not be induced to employ herself in any way, and was subject to violent outbursts of passion. After six months' residence in hospital, she became much more docile. From this time a marked improvement gradually took place in her manner and conduct. After having been about twenty months under treatment, she was reported well. She continued in hospital during six months longer, and at the period of her dismissal appeared to be a modest, quiet, and intelligent looking girl.—*Jour. of Psych. Med. No.* 2.

III.—PRACTICE OF SURGERY.

217.—*On the Use of Chloroform in Surgery.* By Mr Lizars, Edinburgh.—Since the introduction of chloroform by Professor Simpson, Mr Lizars has used it in lithotomy, amputation of the extremities, excision of the mamma, and in strictures of the urethra; "and although" he observes, "I commenced its use with prejudice, I have now become a thorough convert to its utility in almost every operation in surgery. Under its influence, the patient is rendered *pro tempore a cadaver*, and if the surgeon be perfectly master of the anatomy of the parts, he is, as it were, performing a dissection in the anatomical rooms, and is thus enabled to reduce to practice the observation of John Bell, that operating is nothing more than dissecting on the living body.

"In stricture of the urethra, where the patient is of an irritable habit, by putting him under its influence, spasm is totally removed, and that acute sensibility, under which many so afflicted labour, is completely subdued, so that he who is acquainted with the anatomy of the parts cannot fail to carry a small catheter onwards to the urinary bladder in the worst cases of stricture. I have just succeeded in curing a gentleman, thirty-five years of age, who had laboured under stricture for many years, and in whom, four years ago, urinary infiltration took place, requiring free incisions to moderate the sloughing process. From that time he has been afflicted with a perineal urinary fistula. When I first inserted the smallest catheter, it appeared impossible to ascertain the continuity of the urethra, and from the extreme sensibility of the canal, and the irritability of his constitution, there seemed little or no chance of success without the use of chloroform. I have given it to a boy, three years of age, before cutting him for stone, with the greatest benefit."—Extracted from a letter to the Editor of the *Med. Gaz.*, June 8, 1849.

218.—*Local Application of Anæsthetic Agents to Wounds.*—M. Jules Roux has published a paper on the local application of anæsthetics as a means of removing the pain which supervenes on surgical operations. This direct and local anæsthesia, is accomplished by placing the anæsthetic liquid for five, ten, or fifteen minutes, in contact with the wound. This is done by means of a brush, a pledget of lint, a sponge, a bag for etherisation if the agent

be employed in vapour, or (which is to be preferred) by sprinkling the wounds or filling their concavities with the anæsthetic agent. Up to the present time, the attention of M. Roux has been directed to ether, and especially chloroform. It is to this last that almost all the facts stated in the paper have reference.

In his first series of experiments, he used the direct application of the anæsthetic agent for recent wounds, both of small and large extent, arising from operations for phymosis, amputations of finger, thigh, fore-arm; and he observed the following results:—When the patients had not previously been thrown into a state of anæsthesia by inhalation, they complained of a prickling, smarting feeling, an unpleasant degree of heat, severe pain, and soon a sensation of burning. In a short time these phenomena diminished, rapidly disappeared, and gave place to a partial anæsthesia, limited to the parts directly under the influence of the agent employed, a local insensibility, which, during at least forty-eight hours, placed the patient in the most perfect ease. When, on the contrary, the operation had been performed, the patients being in a state of anæsthesia, and when, previous to the return of general sensibility, the wounds were exposed to the influence of the anæsthetic, the pain resulting from its action which is at first irritant, was not felt, and the patients, having recovered entirely their consciousness, passed, without suffering, the first two or three days after their operation. In a second series of experiments, M. Roux turned his attention to combating the pains of the third order, or those which may arise during the process of reparation of the tissues. He has often succeeded in this by means of direct anæsthesia ; he, along with many other surgeons, has found, that after general anæsthesia, the pains of the second order are generally of less duration and intensity than when it is not employed. He has remarked, also, that after direct anæsthesia, the sufferings following the operation are considerably diminished ; a patient who had a partial amputation of a finger, experienced none at all, and those who had undergone amputation at the thigh and forearm, felt almost none, or so slight, that he did not think it necessary to combat them by successive direct applications of chloroform. Again, the pains of suppurating wounds have been soothed and almost removed by the local application of chloroform ; and this application, far from causing any unpleasant affection of the wounds, has appeared, on the contrary, to exercise a happy influence on their progress. M. Roux observed, with some degree of astonishment, that the chloroform which reddens so painfully the skin, covered or not by its cuticle, without causing complete anæsthesia, produces, on the contrary, on wounded surfaces, along with a momentary irritation, a well marked insensibility. The reason of this difference is altogether anatomical : direct anæsthesia, for which he prefers the liquid chloroform to that in a state of vapour, is remarkable for its innocuous properties ; he has never had to regret having had recourse to it. In no case, not even when he injected sixteen grammes of chloroform into the tunica vaginalis of a patient suffering from hydrocele, has he remarked any appreciable phenomenon which could be attributed to the absorption of the anæsthetic fluid. He has always been struck with the calmness of the patients, the absence of febrile reaction, the simplicity and regularity in the progress of suppurating wounds.—*Archives Générales de Médecine*, Jan. 1849.

[For further information on local anæsthetics and their applications, the reader is referred to the analyses of the papers of Drs Simpson and Nunneley, and MM. J. Roux and Moreau, in the Retrospect for 1848, pp. 180, 270.]

219.—*Old Standing Stricture of the Urethra, with Ulceration behind the Contraction, and Extravasation of Urine into the Corpus Cavernosum, causing Gangrene of that Body.* By Mr CURLING.—A corpulent man, aged sixty-five, a master drover, had been the subject of stricture in the urethra for thirty-five years ; but had always been able to pass his water, though for some time in a very diminished stream. On the night of the third of March he was prevented from sleeping, by the occurrence of great pain in the penis, which he found much swollen. On the Sunday morning the swelling of the penis having increased, and being in great pain, and unable to pass his water, he applied to a medical gentleman, who attempted to pass a catheter, but, according to the patient's account, he did not succeed in reaching the bladder, though about a pint of urine, mixed with blood, escaped. This afforded him only temporary relief, and he was brought to the London Hospital about seven P.M. He was then in great pain, and much depressed, with a small and quick pulse. The penis was in a state of erection, and the skin covering it and the prepuce were red and œdematous. The scrotum pre-

sented its usual appearance. An attempt was made to pass a catheter, but the instrument was arrested about the bulbous part of the urethra, and a small quantity of urine escaped. Mr Curling was sent for, and, on examination, finding no swelling or tenderness in the perineum, and no appearance of mischief about the scrotum, he made a free incision through the skin and cellular tissue on both sides of the penis. Finding the left corpus cavernosum tense and fluctuating, an opening was made into it, and immediately a quantity of urine, mixed with blood, gushed out, and continued to flow for some time. The opening was afterwards enlarged, and the tension of the penis subsided. But the part became sloughy. It was impossible to pass an instrument into the bladder. The urine continued partly to flow from the urethra, but chiefly from the opening in the corpus cavernosum. The patient sank gradually, and died March 9th.

Post-mortem examination sixteen hours after death.—The organs of the chest and abdomen were healthy; the kidneys were large, and their glandular structure healthy. Their cavities were dilated; the ureters were also dilated. The coats of the bladder were much thickened, and its mucous membrane was swollen, and presented the dark leaden appearance indicative of inflammation. The prostate gland was about the usual size, but its follicles were much dilated, and filled with a thick viscid fluid. The prostatic ducts were enlarged sufficiently to admit a small probe. There was a close stricture of the urethra, commencing about four inches and a half from the orifice, and extending to the membranous part: in extent about two inches. Anterior to the bulb an ulcerated opening communicated with the left corpus cavernosum. The urethra, both before and behind the stricture, was coated with lymph. The substance of the left corpus cavernosum was dark and sloughy.—*Med. Gazette*, March 30th, 1849.

220.—*On Abscesses of the Iliac Fossa.* Dr De Saussure (one of the editors of the Charleston Medical Journal), has contributed a memoir on this subject. His remarks do not include the cases in which they occur in the puerperal state, although we believe the symptoms in both cases to be almost identical, and that the only distinction that can be drawn, is that in puerperal females the disease may occasionally originate in the broad ligaments. In speaking of the *causes* of these abscesses, he quotes the opinion of Velpeau,* Grisolle,† Dupuytren, Burne,‡ Puchelt, and Copland,§ and expresses his own belief that their origin is often involved in obscurity.

The *progress* of iliac abscess depends much upon its cause and its position. If it arise from ulceration and perforation of the cœcum or its appendix, the pus may either be effused into the general cavity of the peritoneum, or else, adhesion having previously formed, the abscess may become circumscribed, and the fluid make its way to the exterior, or the ulceration may take its course into the cellular tissue, connecting the cœcum with the iliac muscle, constituting one of the forms of iliac abscess especially noticed by Velpeau.

The *symptoms* vary with the origin of the affection. If it depend upon inflammation or perforation of the cœcum, the appearance of a tumour in the iliac region will be preceded by colic and diarrhœa, or by constipation and vomiting. The pain, though diffuse, is most severe in the iliac region, but no actual tumour can be detected, although this region is more elevated than the opposite one. When, on the contrary, the abscess is unconnected with inflammation or ulceration of the cœcum, the appearance of the tumour precedes for some days, or even weeks, the occurrence of the pain, which comes on by degrees, consisting, at first, of a feeling of weight and tension in the iliac region, accompanied by a sense of weight and numbness in the corresponding leg. If the patient be now examined, the presence of a tumour, deep-seated in the iliac region, can be determined; the tumour is generally hard and smooth, the abdominal walls being freely moveable above it. The pain now increases in severity, and radiates towards the umbilicus and pubis, and down the thigh; extension of the latter is painful, and it is usually kept in a semiflexed position. The tumour now increases rapidly; constipation is most commonly present, although diarrhœa sometimes occurs; the system begins to sympathise with the local disorder, and febrile symptoms appear.

The author gives a case, illustrating very well the symptoms and progress of this form of iliac abscess, the abscess com-

* Leçons orales de Clinique Chirurgicale. Vol. iii.

† Phlegmon des Fosses Iliaques; in Archiv. Gen. 3d Series. Vol. iv.

‡ Medico-Chir. Trans. Vol. xx. p. 200.

§ Dictionary of Practical Medicine. Art. Cœcum.

mencing in the cellular tissue filling the iliac fossa, and the pus being ultimately evacuated by an opening midway between Poupart's ligament and the anterior superior spine of the ilium. In cases of this sort, if seen at an early stage, the fact of the tumour in the iliac fossa, over which the abdominal walls can be freely moved, at once establishes the true nature of the affection; but when the inflammation and swelling have extended to the abdominal walls, it becomes doubtful whether the disease is simple abscess of the iliac fossa, or whether the suppuration is the result of caries and necrosis of the bodies of the lumbar vertebræ. The apparent shortening of the limb, and its semiflexed position in walking, may also give rise to suspicion of disease in the head of the femur or the acetabulum. These doubts are often only solved by the progress of the case.

Grisolle has stated, that it is scarcely possible to mistake iliac for lumbar abscess, if we examine into the patient's previous history. The first symptoms, he observes, of psoas abscess are weakness of the loins, some difficulty in walking, and inability to extend the leg; the pain is referred, not to the groin, but to the back; the disease approaches insidiously, without fever, and swelling of the iliac region only takes place late in the affection, after the other symptoms have been developed for some time; whereas, in iliac abscess, the first symptoms are referred to the groin, and a tumour is perceptible there long before the pain in that region, and the difficulty in walking, become marked.

The author observes, that the diagnosis is not so easy as Grisolle maintains. Velpeau confesses that in one case he was deceived, and actually mistook an idiopathic iliac abscess for a psoas abscess; and the author relates a case of psoas abscess, in which the symptoms were strikingly similar to those of his case of iliac abscess to which we have alluded.

In both there was a swelling to the left iliac region, attended by severe pain, but unattended by pain or weakness of the loins; in both there was complete inability to extend the limb, progression was painful, the leg flexed, the foot turned inwards, and the points of the toes closely touched the ground; in neither did a careful examination yield any evidence of disease of the vertebræ or of the hip joint. The only symptom existing in the second case, and not in the first, was œdema of the loins and left leg and thigh. But, excepting the œdema of the loins, this is of no diagnostic value, as it would also occur in iliac abscess, seated between the iliac fascia and the iliac muscle, as the presence of pus in that position would impede the return of the venous blood. Although œdema of the loins never can arise from iliac abscess, it is not of constant occurrence in psoas abscess, only making its appearance when the pus finds its way into the large muscles of the loins. The author concludes his remarks on the diagnosis between iliac and psoas abscesses by observing, that it must depend upon a careful examination into the patient's history and past personal condition, followed by a minute study of the order in which the different symptoms attending his attack have developed themselves, the first period at which the pain and swelling made its appearance in the groin, and the nature and degree of this swelling, both at its first appearance and during its subsequent progress.

A case in which a fæcal tumour was confounded with iliac abscess, is given in the Archiv. Gén. vol. xx. p. 501; and cases are recorded by Churchill, Bucheteau, and Brara, in which pelvic abscesses have even been mistaken for sciatica.

From abscesses having their seat in the abdominal walls, they may be distinguished by the fact, that in the early stages of iliac abscess, the abdominal walls are freely moveable over the tumour, whereas, in the former, the tumour moves with the abdominal walls. From circumscribed, acute, or chronic peritonitis, iliac abscess may be distinguished by the character of the pain, which in the former is more sharp and lancinating, and is generally preceded by rigor, and attended by nausea, vomiting, hiccough, and in time, fever. From diseased ovary it may be distinguished by the ovary being moveable, and by a rectal examination. It is difficult, if not impossible, to distinguish an abscess between the peritoneum and the iliac fascia (sub-peritoneal abscess), and inflammation of the psoas muscle.

With regard to the prognosis, Velpeau regards it as favourable; Grisolle, on the other hand, says, that of seventy-three cases twenty were fatal and eleven serious. The author correctly observes, that much depends on the course the abscess takes.—*Charleston Med. Journ.* No. vi. 1848.

221.—*Impaction of a Halfpenny in the Pharynx for eight months.*—By Dr OGIER WARD.—A boy, aged one year and eight months, came under Dr Ward's care, June 23d, when his breathing was so loud and stridulous, that it resounded

through the hall in which he was waiting. As soon as Dr W. saw him, the child began to cry so convulsively, and was siezed with such violent coughing, that a close examination of his throat was impossible. He was pale and emaciated, and seemed decidedly phthisical. The glands of the neck were somewhat enlarged, and the chest sounded well on percussion. His mother observed, that he was quite well and hearty till March 3d, when she supposed he swallowed a halfpenny with which he was playing, as he began to choke immediately, and the coin could not be found afterwards, and from that moment his breathing had become stridulous. She was then in Coventry Barracks, and she took him to the regimental surgeon, who, thinking it an attack of irritation from teething, merely gave him some castor oil. At this time, besides the dyspnœa, he was constantly dribbling a thick mucus, and he could only suck one mouthful of milk at a time, being forced to withdraw from the breast with each effort of swallowing. The mucus was so profuse as almost to choke him; and these symptoms, with an increasing cough, continued for three months, till a short time before he came under Dr Ward's care, when the dribbling had almost ceased. The mother next took him to the Coventry Hospital, where the case was again considered to be laryngismus from teething, and was treated accordingly. Dr Ward concluded, that the bronchial glands were affected with tnberculosis, as well as those of the neck, and, pressing on the recurrent nerves, were causing the stridulous breathing. He therefore prescribed an iodine liniment and the syrup of the iodide of iron. Under this treatment the child rapidly improved, with occasional relapses, and thus seemed to confirm his diagnosis, when, on October 25th, his mother brought him, looking comparatively well, and produced the halfpenny, which, she said, he had taken out of his mouth the day before, and put it into his father's hand, after a severe fit of coughing. There is now, however, considerable hoarseness when he cries or coughs, the latter symptom not having ceased with the removal of the cause. The halfpenny was very much worn or corroded, and covered with a thick coating of dried mucus or masticated food. From this time the patient has gradually improved, and may now be considered convalescent. Dr Ward related another case, in which a halfpenny had been impacted for three days, and in which the symptoms were similar, particularly the dribbling of the saliva and mucus.—*Pathological Society of London. Dublin Medical Press*, November 29, 1848.

222.—*Extirpation of a Cancerous Submaxillary Gland.* By M. Jobert.—M. Jobert extirpated the submaxillary gland, which had become cancerous, in a woman, sixty years of age. This gland, which was about the size of a small hen's egg, projected on one side below the lower jaw, on the other side into the mouth under the tongue, which it raised up; after having loosened it by a few strokes of the bistoury and scissors, M. Jobert was able, by continued but moderate traction, to isolate to a certain degree the diseased organ, without almost again using the knife. The gland was removed by the mouth without any external wound. The hemorrhage was very slight and easily arrested. On examination, the gland very distinctly showed its cancerous degeneracy, more advanced towards the middle of the organ than in the rest of its extent. After the extirpation of the gland, the index finger placed into the empty space left by the tumour, could with difficulty reach the bottom; and it seemed evidently the submaxillary gland that had been removed.—*Gazette des Hôpitaux*, January 13, 1849.

223.—*Reduction of Simple Dislocation of the Astragalus.* By Mr Crosse.—At a meeting of the Norwich Pathological Society, Mr Crosse related the history of a case of simple dislocation of the astragalus, admitted under him in the Norfolk and Norwich Hospital. The patient had been thrown out of a dog-cart: on his admission the limb presented all the symptoms of dislocation of the astragalus, the sole of the foot being turned inwards, and the foot resting upon its outer edge, while that end of the astragalus which articulates with the os naviculare, was dislocated upwards and outwards, lying just under the skin. Neither tibia nor fibula was fractured. In reducing it, extension was made from the knee direct, and the heel grasped by assistants, who applied their force in this direction with one hand, the other being placed upon the dorsum of the foot, he at the same time endeavouring to favour the return of the bone by immediate pressure on the dislocated end. Mr Crosse finding that it did not yield to these means, and feeling the tendo-achillis very tense, divided it with a tenotomy knife, and upon resuming the extension, the bone was returned somewhat suddenly into its place after a few minutes, and the shape of the limb quite restored. Chloroform was administered

in this case, but not very successfully.—*Provincial Medical* and *Surgical Journal*, December 13, 1848.

224.—*On Paralysis of the Circumflex Nerve.* By M. COMON.—M. Comon gives a case to illustrate the fact, that paralysis of motor nerves may depend on neuralgia of the sensitive nerves with which they are associated. A recruit was suddenly seized with intense pain in the right clavicular, and especially in the axillary region, extending to the deltoid along the course of the circumflex nerve. The pain was aggravated by motion or pressure on the deltoid, or in the axilla.

On the following day the pain had left the deltoid, and was barely perceptible in the axilla; but the deltoid was now paralysed, and the power of raising the arm to the horizontal position was lost. The case yielded to counter-irritants, and electro-galvanism.

The author draws the following distinctions between paralysis of the deltoid, and of the serratus magnus.

1. When the paralysis is independent of any injury, there is no pain in the muscles themselves. In paralysis of the deltoid, the pain proceeds from the axilla, follows the course of the circumflex nerve, and in the mass of the muscle we find a point which is tender on pressure. In paralysis of the serratus magnus, the pain extends from the axilla to the thoracic wall.

2. In the former affection, the patient cannot raise the arm from the body, not even when the scapula is pressed against the ribs; in the latter there is difficulty in moving the arm.

3. In the former, the scapula is drawn downwards and displaced; in the latter, it is drawn upwards, and, as it were, removed from the ribs by the contraction of the *trapezius* and *levator scapulæ muscles*.—*Gaz. des Hopitaux*, No. 58, 1848.

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

225.—*Superfœtation—Double Uterus.*—A female, native of Modena, previously mother of six children, became pregnant for the seventh time in 1817. Nothing unusual was observed, with the exception that the uterus appeared to be unequally distended, a furrow being perceptible along the median line. On the 15th of February 1817, she was delivered of a male infant at full term and well developed. The placenta was expelled naturally, and the woman recovered her usual strength, but it was remarked that one half of the abdomen was still enlarged, and the movements of a fœtus could be distinctly ascertained. The patient continued in excellent health until March 14th, just a month, at which time labour ensued again, and she was a second time delivered of a male infant, living and well formed. In 1822 she became pregnant again, and bore a child now living.

Various explanations were given of that extraordinary case, and amongst others it was considered as a case of superfœtation, with double uterus, by M. Binogli. The justness of this opinion was verified last year by the death of the patient from apoplexy. On examination, the uterus was found to be double, with a single cervix. The preparation is preserved in the Hospital at Modena.—*Encyclograph Méd.*, Fev. 1849, and *Prov. Med. and Surg. Journal*, May 30, 1849.

We shall here add an extract from a letter by Dr A. N. Read of Andover, Ohio, to the editor of the "Philadelphia Medical Examiner." "Permit me (he says) to mention to you one of nature's freaks in generation, which occurred in an adjoining township the past summer. A mare at one birth brought forth a well-formed colt and a mule. She was put to the horse some two or three days after having received the jackass. Both the colt and the mule are doing well. I am aware that the fact of impregnation by different males is not new to physiologists, but the great difference in time, in this instance, I thought, was worth mentioning."—*The Philadelphia Medical Examiner*, September 1848, and Nov. 1848.

226.—*Catheterism of the Fallopian Tube to cure Sterility.* By Dr TYLER SMITH.—"There may be," says Dr Smith, "mechanical impediments to the passage of the ova from the ovaria to the uterus, through the Fallopian tubes. There may be obliteration and adhesion of the ovarian extremities of the tubes to the ovaria; or there may be simple occlusion of the uterine extremity of the tube, so as to prevent both the ascent of the spermatic particles and the descent of the ovule. This part of the generative canal is of especial importance, as it is the narrowest portion, the point where the slightest impediment must necessarily produce sterility. A plug of hardened mucus of the most insignificant character—the merest debris of the Fallopian secretion—may

cut off an illustrious race, or change a dynasty. It is to this cause of sterility, which I believe to be very common, and easily, and safely remedied, that I wish to direct special attention.

"We find in practice that in the great majority of cases of sterility, there is a good state of health, the uterine secretion appears regularly, and there is neither appreciable pain nor disease in any of the reproductive organs. The mere absence of child-bearing, all the conditions of fertility being apparently present, is the only symptom. This is, in fact, a reason why a vast number of cases never come under medical treatment at all. I submit, that in these cases of good health, combined with sterility, the defect can only arise from some mechanical impediment, such as can be remedied by Fallopian catheterism. We sometimes see these cases after years of barrenness, suddenly, and without any apparent cause, give way, and the subjects of them bear children. Such cases are, I have no doubt, cases of Fallopian impediment, relieved at length by accident, but which might have been remedied long before by art."—*Lancet*, June 9, 1849, p. 604.

The instrument, in the use of which the speculum is always required, consists of a small silver catheter, bent like the male catheter, or the uterine sound, to adapt it to the curve formed by the uterus and vagina, and having a lateral curve at the distal extremity, pointing, when *in situ*, to the uterine mouth of the Fallopian canal. Through this catheter a fine whalebone bougie is passed into the Fallopian tube. When the small bougie is thus passed so as to project at its Fallopian extremity, the instrument represents accurately the singular direction taken by the generative canal, from the mouth of the vagina to the fimbriated extremity of the tube.—*Lancet*, May 1849, p. 510.

[We doubt both the practicability and utility of this ingenious contrivance of Dr Smith's. It is difficult to conceive that the point of the instrument should skip over all the mucous folds and follicles of the uterine cavity to arrive safely at an orifice, itself capillary in size, and beset with small rugæ of the soft mucous membrane. Dr Smith may succeed in passing his instrument in a uterus removed from the body and laid flat upon an anatomical table, but it is in the highest degree improbable that he should succeed in passing it in the living female, and, in any case, he can never know certainly whether his little wire has really passed along the Fallopian tube, or whether it has been curled up into the uterine cavity, or whether it has perforated the uterine tissues.]

227.—*Tincture of Indian Hemp in Sanguineous Uterine Discharge.* By Dr Churchill.—Dr Churchill, in a communication to the Dublin Obstetrical Society, stated that he was indebted for the knowledge of the utility of this medicine to Dr Maguire of Castlenack, who had discovered its value in this class of cases by accident. Dr Maguire had prescribed a small dose of the tincture of Indian hemp for a poor woman labouring under some form of neuralgia; and on inquiring into the effects a few days afterwards, the patient declared that it had cured both her complaints, and then, for the first time, informed Dr Maguire that she had been suffering from menorrhagia. This led him to try it in some similar cases, and finding equally satisfactory results, he mentioned the fact to Dr Churchill, requesting him to try it, which he has done extensively. Dr Churchill mentioned it to the late Dr Hunt and other friends, and the remedy he believes has had a pretty fair trial; and if their experience (as he believes) confirms his, the profession has reason to congratulate itself upon the addition of a most valuable remedy for a class of diseases whose materia medica has been hitherto very limited. The largest class of cases in which Dr Churchill has found the most unqualified benefit are those of menorrhagia, where the discharge, though excessive, is fluid, and but little mixed with clots, and when the uterus is not enlarged. In many such cases, five drops of the tincture three times a day have stopped the discharge in 24 or 48 hours. When there is pain, too, if it be not excessive, relief is obtained without the addition of another anodyne. In other cases, when the discharge, whether too much or not, has returned too frequently, Dr Churchill has succeeded in arresting or postponing it to the proper period by the tincture, just as can be done by means of ergot of rye. In those cases of menorrhagia, when the uterus is much congested and enlarged, and where the discharge is largely mixed with coagula, although it has succeeded in many cases, yet it has failed in other instances, and the success in some has been incomplete. Nevertheless, even in these, it is of great value; and finding that it possessed power even over uterine hemorrhage, it occurred to Dr Churchill to try it in threatened abortion at an early period of the attack, when the hemorrhage was slight, and the pains rare and weak. In such cases, ergot of rye is out of the question; lead has but little power.

Opium and cold applications and quiet are our principal remedies, but they often fail'; and, therefore, the addition of a direct and powerful agent which should combine an astringent with an anodyne, would be a valuable acquisition. Dr Churchill has now tried it in six or seven such cases, and he has found that when employed sufficiently early, it succeeded remarkably well, but that at a later period it failed partially or wholly. Dr Churchill does not pretend to explain its *modus operandi;* he can only say, that it appears to exert an astringent power in hemorrhages from mucous surfaces, and, also, to have a sedative or anodyne effect. The preparation he has invariably used is Mr Donovan's tincture of the resin. He begins with five drops three times a day, in a few cases increasing it to ten, but seldom more. The effects are very soon seen, generally in twenty-four or forty-eight hours, often much sooner, nay, in some cases mentioned to Dr Churchill by Dr Hunt and Dr Maguire, the effect was instantaneous. In some cases, the beneficial effect was accompanied by a slightly unpleasant feeling in the head, resembling that from an extra glass of wine. In one case only has Dr Churchill seen any more disagreeable results; but in that, five drops produced an extraordinary degree of nervousness and a sense of sinking, almost of dying, which gradually passed off.—*Medical Times,* May 14, 1849.

228.—*Iodine in Congestion and Erosion of the Cervix Uteri.* By Dr CHURCHILL.—In a communication to the Dublin Obstetrical Society Dr Churchill stated, that after the elaborate work of Dr Bennett, and the excellent paper of Dr Evory Kennedy, it would be superfluous for him to enter into a description of congestion and erosion of the cervix uteri. He quite agreed with those writers as to its being much more frequent than was heretofore believed, and, also, that it is neither easily detected nor easily cured without the use of the speculum. At the sametime, he thinks it neither necessary nor becoming to propose an examination with this instrument in every case of vaginal discharge; a degree of delicacy and discrimination should always be exercised. This is particularly necessary with nervous women. The author has known irremediable mischief result from neglecting this consideration. Again, if it be possible to avoid it, he should consider it wrong to propose an internal examination to an unmarried female. In accordance with these views, whenever he is consulted for a whitish or yellowish vaginal discharge, or for leucorrhœa, Dr Churchill always makes an attempt to cure it by general means, such as blisters to the sacrum, balsam of copaiba, ergot of rye, &c., with local baths of cold water or astringents. Many cases are thus cured; but if he fail, he thinks it fair to assume that there is either congestion or erosion, requiring other local treatment, and in the majority of cases he has found this to be so. The usual application is nitrate of silver, acid nitrate of mercury, nitric acid, chloride of zinc, all of which he has repeatedly tried with great benefit; but it occurred to him (Dr Churchill) that caustic iodine would probably answer better than any of these singly, inasmuch as it possesses sufficiently strong caustic properties, and, in addition, would be likely to act beneficially in reducing the enlarged cervix. The preparation Dr Churchill employs is of the following strength :— ℥j. Iodinii, ℥ij. Potassæ hydriodatis, ℥ij. Aquæ destillatæ, ℥ij. Spiritus vini. ℞., and after four or five years' trial, he can truly say that he has found it the best application for congestion, erosion, or superficial ulceration, of all that he has tried. Dr Churchill usually commences with a single application of nitric acid, or the acid nitrate of mercury, and then, after a few days, he paints the entire cervix with the iodine. This must be repeated once or twice a week, but not oftener, for whenever he has attempted its more frequent use he has found the uterine irritation rather to increase than diminish; and this will probably explain why these trifling complaints take so long a time to cure. Dr Churchill had seldom succeeded in less than two months if the congestion was considerable, and many cases have required a much longer time. The application occasions no pain at all, unless the orifice of the vagina should be touched by the caustic, which may happen if it be applied too profusely. In one case, the patient complained of a metallic taste in her mouth, in five minutes or less after each operation. After one or two applications, the cervix will generally be found to have diminished in volume, to have lost its tenderness, and the eroded surface to have lessened in extent, and to have assumed a more healthy appearance. Dr Churchill strongly recommends that the application of the iodine should not cease abruptly, but first be diminished in frequency, then left off, and resumed if, as is very common, any of the symptoms return.—*Medical Times,* May 14, 1849.

V.—MATERIA MEDICA AND THERAPEUTICS.

229.—*The Cotyledon Umbilicus in Epilepsy.* By Dr Joseph Bullar.—Several years ago the expressed juice of the Cotyledon Umbilicus was recommended to a lady labouring under epilepsy, which had not yielded to medical treatment, and under its use the disease was entirely removed, and has not returned. The patient was under the care of Mr Salter, of Poole. Subsequently, Dr W. Bullar recommended the juice for a child in the neighbourhood of Southampton, where the plant grows, and the epilepsy was cured. Dr Joseph Bullar's trials have been made with the extract of the expressed juice. He observes:—

"From the experience I have had in a considerable number of cases (several of which were of a very hopeless kind), long perseverance is necessary; and if the number and violence of the fits are lessened, there are good grounds for hope and further perseverance. In all the cases there has been a marked diminution in the violence and frequency of the attacks; and as, in two cases (one of which I heard of today), it has first increased the violence of the fit, and as in others there have been transient symptoms of increased nervousness and headache, requiring a short suspension, I am in hopes that it may prove a true anti-epileptic. It is certainly in many cases nervo-tonic, as the improved nervous tone is shown by quieter sleep, fewer dreams, better spirits, more ability to take exercise, and a consciousness of general improvement. It has no other action on the body that I am aware of. It certainly produces no action on the bowels, for when there has been costiveness (which is so commonly the case in epileptics) the usual medicines to keep up a natural action have been required. I will briefly relate two cases which have impressed me strongly with the powers of the medicine, and the importance of steady perseverance.

"One of these patients had been epileptic for some years; she was of an excitable nervous system, and had suffered much anxiety. During the year which preceded the use of the cotyledon, she had attacks of epilepsy every three weeks, the attacks consisting of eight or nine fits, lasting from twelve to twenty-four hours. She has, with few intervals, taken the cotyledon since April 1848, and she has had but one fit during the last seven months, and that a slight one. Her health has improved.

"The second was a younger woman, about 22, who had been epileptic since she was six years old. She was muscularly strong, and her general health good, except costiveness and slight leucorrhœa. The fits occurred once or twice a week, occasionally (but rarely) there was an interval of three weeks. No remedies had been of any use. She began to take the extract in April, and continued it until October, with a few intermissions. The fits had become very few, and more like short fainting fits, in which she did not lose her consciousness. In November she went to France, and I learned a fortnight ago that she had had but two of these slight fainting fits since, and six months have elapsed.

"Now, neither of these cases can be strictly said to be cured, the fits may return, but yet they are sufficient evidence to justify perseverance in other cases.

"Through the kindness of the attendant surgeon, I had an opportunity last year of trying the extract of cotyledon in five patients who were incarcerated for life in the workhouse, on account of epilepsy; they had been epileptic for five, eight, twelve, thirty, and fifty-eight years, and in all the mind was weakened. I did not persevere more than three months, as the attacks, though fewer, still returned. Subsequent experience having shown me that much greater perseverance was necessary, I examined the notes of these cases, and found on comparing the difference between the number of fits which the patient had before the use of the extract, and those which occurred during its employment, so striking a diminution as to supply confirmative evidence of its power.

"The juice is prepared by bruising the leaves and leaf-stalks in a mortar, and expressing the juice from the bruised mass through a cloth. One teaspoonful twice a day of the juice. I have prescribed five grains of the extract (which is made by evaporating this juice) twice a day, and occasionally three times.

"I cannot finish this communication," Dr Bullar concludes, "without repeating that disappointment will surely follow, if the patient and practitioner are not willing to persevere; and unless, besides the assumed specific, each case is not treated for its individual peculiarities." — *Prov. Med. Journal*, May 30, 1849.

[Considering the very slender nature of the evidence of the anti-epileptic powers of this drug, we have been astonished at the amount of attention which it has attracted. Certainly many suggestions in therapeutics with more convincing facts in their support fall daily into oblivion.

We hope, however, that numerous trials of the *cotyledon* will soon determine the question of its utility; and we request those of our readers who may try the drug, to oblige Dr Bullar, of Southampton, by communicating to him the results of their experience, favourable or unfavourable. There is, at least, no proper evidence of the specific action assumed by Dr Bullar. The exacerbation of the disease, observed in one or two cases in commencing the use of the medicine, was quite as likely to have been accidental and unconnected with the employment of the cotyledon. Paulus Ægineta and Galen recommend the application of the navel-wort to wounds, on account of its alleged cooling and discutient properties; but it enjoyed repute among the ancients, more especially as a lithontriptic and diuretic. Dioscorides describes two species—the *Cotyledon Umbilicus* and the *Cotyledon serrata*. Parkinson, in his "Theatrum Botanicum" (1640), and Bakewell (1737), ascribe to it similar virtues; but in the more recent works on Materia Medica and Medical Botany, all notice of the plant has been generally omitted, or they have merely copied the remarks of the older writers. Its use in epilepsy was suggested to Mr Salter, by the perusal of an article in an American Medical Journal, recommending its employment in this disease. The plant grows abundantly in England and Ireland, and has been found in many places on the west coast of Scotland by Professor Balfour. Its favourite sites are walls, rocks, and old buildings. It is in flower at the present time. The *Cotyledon Umbilicus* (Lin.), *Umbilicus pendulinus*, D.C. Navelwort, or Wall Pennywort, belongs to the class *Decandria* and order *Pentagynia* of the Linnæan arrangement, and to the natural order *Crassulaceæ*. The whole plant is succulent, with a round stem from six inches to a foot in height; the leaves are mostly radical, peltate, and depressed in the centre; the flowers, which are of a yellowish-green colour, are arranged on a simple pendulous raceme. Mr Salter (Med. Gaz., March 2) states, that the plant may be used as long as the leaves remain green and succulent, and every part of it may be employed for the expression of the juice, with which the leaves, however, are the most abundantly supplied.]

230.—*The Mechanical Leech of* M. Alexandre.—This apparatus is intended to supersede the use of leeches. It consists essentially of two parts—an instrument for puncturing the skin; and another for promoting the flow of blood by removing atmospheric pressure from the punctured part. The puncture is effected by a lancet, the blade of which has the form of the cutting apparatus of the leech. This lancet is fixed in the mouth of a tube, and projects about the eighth of an inch beyond the edge of the tube. It may be elevated by a small lever, so that its point shall be within the tube, in which position it is secured by a catch. Attached to the opposite end of the tube by a piece of vulcanised Indian-rubber, which acts as a spring, is a piston, which is pressed down by a rod, and, on removing the pressure, is drawn back by the Indian-rubber spring. The piston being pressed down, the open end of the tube in which the lancet is fixed is placed over the part to be punctured; the pressure is now removed, when the piston is drawn back by the spring, and exhausting the air within the tube, the skin is forced up into the mouth of the tube. On loosening the lever by which the lancet has been elevated, the latter is drawn down by a spring, also of vulcanised Indian-rubber, so as to effect the puncture. The cutting instrument is now removed, and a glass tube, with a piston similar to that already described, is placed over the puncture, the air within being exhausted, so that the tube adheres to the part, and the blood flows freely into it. Half a dozen or a dozen tubes, each of which would draw as much blood as a large leech, might be thus attached in two or three minutes. The apparatus, consisting of a cutting instrument and six or twelve suction tubes, together with sundry implements for cleaning the lancet and tubes after use, are contained in a small case. It is very neatly got up, and we understand, from those who have used it, is very efficient. The idea, however, is not new. So long ago as the year 1813, the silver medal was awarded at the Society of Arts to Mr J. Whitford of St Bartholomew's Hospital, for the invention of a somewhat similar apparatus for the same purpose. In Mr Whitford's apparatus the exhaustion was effected by a syringe, which was found to be inconvenient. The use of vulcanised Indian-rubber springs, attached to the pistons, by which efficient suction tubes are economically formed, is a great improvement in M. Alexandre's apparatus.—*Phar. Jour.*, February 1849.

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CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

231.—*Bowman on the Eye—continued.*—The difference of opinion regarding the nature of the tissue of the *iris*, resolves itself into the question of the definition of the term "muscular." It is enough that its essential tissue is fibrous, and that these fibres are contractile, and the information we desire is with regard to the characters and arrangement of these fibres. Mr Bowman finds that they are allied to, but not identical with, those of the unstriped variety of muscular fibre. They radiate inwards, forming about forty prominent lines on the front, to within one-tenth of an inch from the pupil. There is then a lateral plexiform union; and lastly a very narrow circle of fibres radiating to the pupillary margin. Contrary to the belief of some excellent anatomists, he does not admit the existence, as the usual condition, of a circularly arranged series of fibres towards the pupil; but thinks that the plexiform arrangement described, may serve the purpose attributed to the so called "sphincter pupillæ."

Ciliary Muscle.—This greyish-white circle, which is usually, in whole or in part, called the ciliary ligament, and regarded as serving to unite the sclerotic, the ciliary processes of the choroid, and the iris, is satisfactorily proved by Mr Bowman to be muscular in its nature, as had been previously conjectured by various observers. Its fibres correspond to those of the unstriped muscle. They arise chiefly from the plexiform tissue from the margin of the posterior elastic lamina of the cornea, and radiate backwards in layers to be attached to the ciliary processes of the choroid. When this muscle acts, it will draw upon the ciliary processes of the choroid, and, through them, upon the vitreous humour and lens, so as, chiefly by advancing the latter, to adapt the eye for the vision of near objects. It is thus associated in action—as in nervous supply and by origin of fibres—with the iris, as the contraction of the pupil is likewise required for this purpose.

Microscopical observers are not entirely agreed regarding the so-called

membrane of the aqueous humour, the existence of which anatomists have usually regarded as problematical. The delicate layer on the back of the iris noticed by Dr Jacob, is evidently the layer of pigment cells, or epithelial cells containing pigment, described by Mr Bowman as continued to the iris from the surface of the ciliary processes of the choroid. All observers agree as to the existence of a single layer of flattened cells on the back of the cornea, arranged as on the surface of serous membranes; but, although Valentin has described a layer of cells on both surfaces of the iris, Mr Bowman, with Henle, cannot find them either there or on the front of the capsule of the lens. He, therefore, concludes, that "it seems incorrect to speak of the chambers of the eye as lined by a serous membrane, or of the aqueous humour as contained within a proper capsule; and I suppose that practictioners must abandon the *name*, at least, of that affection, which is now generally termed *aquo-capsulitis*, even if they continue to regard it as a distinct disease."

We next notice his observations on the capsule of the lens and its connections with the ciliary processes.

The anterior hemisphere of the capsule is thicker than the posterior, according to Mr Bowman, by from four to six times; and the thickness of the anterior wall he finds to diminish suddenly where it is joined by the anterior boundary of the canal of Petit.

Regarding the nature of the connection between the ciliary body or processes of the choroid, the vitreous, and the capsule of the lens, much has been written; and the inquiry is an interesting one, as connected with the influence of the ciliary muscle on the lens. It is usual to regard the hyaloid membrane, enclosing the vitreous humour, as coming into relation with the ciliary processes of the choroid at their posterior margin (ora serrata), where the true retina ceases, and as adhering to them; whilst, from this point to near the lens, it is thrown into elevations and depressions which fit in and correspond to the ciliary processes of the choroid. These are the ciliary processes of the hyaloid membrane. The latter membrane is now regarded as splitting into two at a distance of a line or little more from the lens, the posterior coming into contact with the capsule at a short distance behind its rim, the anterior as joining it at its margin; and the space between these two layers and the circumference of the capsule, is the canal of Petit. There is evidently a uniting structure between the ciliary processes of the choroid and the hyaloid membrane. This has been variously held to be merely a thickened and plaited part of the hyaloid membrane, a continuation of the retina (its vascular elements) on towards the lens, or a special structure; and this, together with its continuation to the capsule, is the "orbiculus capsulo-ciliaris" of Ammon, and the "*suspensory ligament of the lens*" of Retzius. Under the latter name, Mr Bowman describes it as consisting, externally, of a milky looking membrane, closely lining the ciliary processes of the choroid, continuous behind at the ora serrata with the retina, but clearly not nervous in structure, and thinning gradually towards the tips of the ciliary processes; and internally, or behind, of an elastic or transparent fibro-membranous structure derived from the whole inner surface of the first, and extending to the capsule of the lens. The latter is the proper suspensory ligament. Between the tips of the ciliary processes and the capsule, it lies between the canal of Petit and the posterior aqueous chamber; and Mr Bowman describes it as joining the capsule not at its rim, but a short distance in front of it; and it is here that the sudden diminution in the thickness of the capsule occurs, the two structures becoming continuous with each other. Mr Bowman believes that no blood-vessels pass into the vitreous body or the lens and its capsule, their nourishment being carried on by imbibition from the vessels of the retina, but more especially those of the ciliary processes. The single layer of polygonal nucleated cells which lie immediately within the capsule of the lens, are connected, no doubt, with the nutritive changes of the crystalline, and they also establish an adhesion between the latter and its capsule. They occupy the position of the so-called "Aqua Morgagni." Although that anatomist did not describe a fluid as existing naturally in this situation, such a belief has, nevertheless, become very common, notwithstanding that it has often been pointed out that the existence of a fluid between the lens and its capsule is a post-mortem change, or a rare morbid condition in the human eye. Indeed, that there is naturally an adhesion between the lens and its capsule, may be proved, as shown by Dr Jacob, by the experiment, on a perfectly fresh eye, of removing more than a half of the capsule, and then attempting to raise the lens by a needle, when the adhesion is sufficient to sustain the dragging about of the posterior part of the eye.

The Retina.—Mr Bowman's account of the structure of this membrane seems to

agree generally with that of Hannover, to which he refers. Between the hyaloid and retina is placed a single layer of large transparent rounded cells; and, from within outwards, the following parts are presented in the retina. 1. Grey anastomosing fibres, radiating on all sides from the entrance of the optic nerve, being a continuation of its nerve tubules. As these pierce the sclerotic they lose the thick white coating which gives to them, under the microscope, the double dark outline; but the contained neurine, or central fibre, continues on, and forms this layer of the retina. 2. Grey nervous matter, composed of a granular matrix, containing nucleated nervous vesicles, and similar to the grey matter on the surface of the convolutions of the brain. 3. In connection with the last layer, caudate nucleated globules, which are difficult to distinguish, and which Mr B. was the first to point out. These cells are similar to those found in the ganglia, spinal cord, and some parts of the brain, and are now known to give origin by their processes to nerve tubes, the grey fibre soon acquiring its tubular coating. Blood-vessels are distributed among the preceding elements only. 4. A layer, embracing one-fourth or one-fifth of the thickness of the retina, composed of globules or granules, lying close together, with a very little intervening granular matter, and allied to the nuclei of cells, such as are met with in some parts of the brain. These are the elements common to the retina with the other parts of the nervous system, the rest are peculiar to the retina, and constitute Jacob's membrane. They are, 5, a series of rods or columnar particles, forming the whole thickness of Jacob's membrane, placed close together, their inner ends resting on the granular layer, and their outer extremities being in contact with the lining membrane of the choroid, in the cells of which the pigment is chiefly contained. These are more than one-half longer, and, therefore, Jacob's membrane is thicker at the back than at the fore part of the retina. 6. Bulbous particles, scattered among the rods towards their internal extremities. In man these are oval, with occasional spur-like processes turned outwards; but in some animals they are more numerous and remarkable, as they lie among the rods.

We have here a complete refutation of the still not uncommon view as to the layer of Jacob being a double serous membrane, in opposition to the opinion of its discoverer; but this membrane has not been, until lately, regarded as a part of the retina proper. It would be premature to speculate as yet on the relative uses or importance of these several layers, but it can scarcely be doubted that the elements of Jacob's membrane, and the granular layer next within it, are connected with the reception of impressions, as well as the internal and more directly "nervous" layer. The retinæ must be regarded as something more than a mere expansion of the optic nerves, for the purpose of receiving the luminous impressions; the optic nerves being, as it were, commissural between them and the sensory ganglia of the brain; although there can likewise be no doubt that, without this central connection and integrity of the nerves, there can be no visual sensation.

It remains for us now to notice Mr Bowman's observations regarding the point of entrance of the optic nerve, and the yellow spot and central foramen of Sœmmering. The phenomena in connection with these have occasioned some perplexity, and are so far enigmatical that, over the first, where the nerve enters, there is no vision; whereas, at the former, where the retina is usually believed to be, at least, partially deficient, vision is the most acute.

With regard to the point of entrance of the optic nerve, it follows, as here the grey fibres are but beginning to diverge, that the other layers are absent, that, in fact, as Mr Bowman observes, there is here no retina proper; and we have thus afforded at once an explanation of the well-known fact of the complete blindness of this spot, and a proof that the outer layers of the retina are essential to its visual power.

The yellow spot—situated one-eighth of an inch to the outside of the entrance of the optic nerve, being from 1-5th to 1-12th of an inch in diameter, and occupying the exact axis of the eye—presents in its centre a small hole, partially concealed by a fold which approaches it from the entrance of the nerve. This fold Mr B. believes to be a post-mortem result, but his grounds for this belief do not satisfy us as being sufficient to set aside the contrary opinion of Dr Jacob, formed from very careful observation of recent eyes; and the account given by Dr Knox of the appearances presented by a similar fold in quadrumanous animals and certain reptiles, in which he discovered the presence of the yellow spot and foramen, seems to render it pretty certain that there is naturally a fold of the retina in this situation, by which the perforation is either completely or partially overlapped. From Dr Jacob's observations, it would appear, that the foramen does not involve

the whole thickness of the retina, and that his membrane covers it behind. Mr Bowman also finds this membrane to be continued behind the yellow spot, and further, that there is there a considerable modification of the other retinal layers. That the grey fibres are fewer in number, and those stretching forwards from the optic nerve pass round and avoid the spot, so that those only approach which properly belong to it. The vesicular nervous matters, including the caudate cells, are much more abundant, and the outer granular layer exists, with only a slight modification. The yellow colour of the spot seems to be diffused through all these elements, though here and there in minute grains of deeper hue, still not lying in proper pigment cells, but staining fibres, vesicles, and granules, alike, with the exception of Jacob's membrane, which does not partake of the yellow tinge. The arteries and veins, as is known, avoid this spot, which has, therefore, only its own capillaries; but this arrangement of the blood-vessels is said also to occur here in animals which have no yellow spot.

Instead, then, of a deficiency of the retina at this part, it would appear that there is here a more highly and delicately organised portion of it, concealing this small perforation, and occupying the axis of the eye, at, and close around which, there is a well known exaltation of the function of the retina. The meaning of the perforation, however, still remains unexplained. The theory of some, that it is an analogous condition to the fissure in the retina of birds, through which the dark pecten passes from the choroid into the vitreous humour, has been supported by arguments derived from comparative anatomy and development; but this view scarcely accords with the circumstance of the absence of the spot and foramen in nearly all quadrupeds. The latter fact also points out to us that the spot and foramen are not essential to the constitution of a perfect retina; although, at the same time, it may be remarked that the relation between the two eyes in animals, which again varies in different classes and genera, is very different from that which obtains between them in man, with reference to their motions and to single vision with two eyes.

II.—MORBID ANATOMY, PATHOLOGY, AND PATHOLOGICAL CHEMISTRY.

232.—*On the Blood in Purpura.* By Dr PARKES.—Dr Parkes has recently published two cases of purpura, which occurred in University College Hospital, and given analyses of the blood. The following are the results of his analysis.

	A man aged 23.	A woman aged 18.
Water, . . .	799·03	819·40
Solid Residue, .	200·97	180·60
	1000·00	1000·00
Blood-corpuscles, .	119·611	93·66
Fibrin, . . .	2·088	5·00
Albumen, . .	67·103	75·31
Extractive Matters,	5·304	
Salts of the Serum,	6·864	6·63
Consisting of		
Chloride of Iodine,	2·938	2·530
Chloride of Potassium,	·811	
Phosphate of Soda,	·625	1·088
Sulphate of Soda, .	·363	
Peroxide of Iron, .	1·296	·602
Lime, . . .	·077	·080 or less.

The most important points in the first analysis seem to be, *first*, that there is a general lowering of the solid constituents of the blood; *second*, that the relative proportion of the organic materials to each other seems preserved; and *third*, that the most striking alteration in the inorganic compounds, consists in a marked increase in the quantity of iron.

The urine was of high specific gravity, and carried off a larger amount of solids than was normal.

The treatment consisted in the administration of ten grains of nitrate of potash thrice daily, and the use of animal food. He was dismissed cured in one week.

In the second case, the chief point of interest was the great increase of fibrin. As neither inflammation nor rheumatism were present, it seemed difficult at first sight to understand why there should be this increase in this case and not in the former. The difficulty was however completely explained by the progress of the case. In other respects the analysis agreed. The solid contents generally were lowered. Bequerel's average for healthy women is 208·1; and thus relatively the corpuscles would be nearly 104 in 1000 parts of blood, which is quite within the limits of health. The organic constituents in this case, as in the former, preserve their natural relation to one another, with the exception of the fibrin. The most marked change in the inorganic con-

stituents is also in the increase of the iron. With only 95 of blood-corpuscles, it should have been reduced to about ·4, whereas it has amounted to ·602 in the 1000 parts. The potash was normal, and as the patient had taken none as medicine, it is obvious that the appearance of purpura is not connected with a deficiency of this alkali in the blood.

This patient entered the hospital on the 7th of August. She was bled on the following day; on the 14th an attack of articular rheumatism commenced, which was doubtless connected with the excess of fibrin, found on the 8th. On the 26th, she left the hospital cured, both of the purpura and the rhuematism. The augmentation of the fibrin so long before any local manifestation is worthy of notice.

In all the cases that Dr Parkes has observed at University College Hospital, there has been deficiency in the quantity and want of variety in the food, but from the close analogy between this disease and *morbus maculosus werlhofii* (which he has seen in soldiers in India, who had been well nourished, and who were unavailingly treated with tonics, generous diet, and fresh vegetables, but were cured both by turpentine and by creosote), he thinks that there is some other cause beyond dietetic errors.—*London Med. Gaz.*, Nov. 1848.

233.—*Oxalic Acid in the Blood in Disease.* By Dr Garrod, Assistant Physician to University College Hospital.—In a specimen of blood which contained a large impregnation of urea, Dr Garrod, in the course of a search for uric acid, discovered a large amount of oxalic acid, in the form of dumb-bell and octohedral crystals of oxalate of lime. He has since discovered traces of this acid in four other cases. The symptoms which the first patient, in whom it was abundant, laboured, were constant hiccup or eructation, œdema of the face and extremities, ascites, together with a frequent, but not constant impregnation of the urine with albumen. The only remarkable post-mortem appearance was in the kidneys, "which were found to be coarse in texture, and the tubules of the cortical substance filled with a white plaster-like matter (urate of soda)."—*Med. Times*, 4th July 1848.

[In examining the blood of a cholera patient for urea, Dr W. Robertson informs us that he obtained crystals, apparently of oxalate of lime, from the spirit extract, after treating it with nitric acid. These, however, were probably the result of decomposition of some organic compound. We hope that the details of Dr Garrod's observations will be laid before the public. It is difficult to conceive of oxalate of lime existing as such in the circulation.]

234.—*On the Simultaneous Development of Variola and Vaccinia.* By MM. Herard and Bousquet.—M. Herard having had at the Children's Hospital of Paris (where children are so wantonly exposed to the danger of contracting smallpox prior to their vaccination) the opportunity of observing 18 cases of the co-existence of the two diseases, he is desirous of expressing his opinion upon the disputed question as to the degree of influence they exert upon each other.

Of these 18 children (from twenty months to four years old) 7 died; all these being, however, cachectic or exhausted by prior disease. In them the smallpox was rarely confluent, but it was irregular and ill developed. In the 11 cases which recovered, the eruption was discrete, rapid in its course, and unaccompanied by suppuration of the pustules, or tumefaction of the surrounding skin. The fever was slight, and the convalescence rapid. During this benign progress of these cases, the disease more than once proved very fatal to non-vaccinated children. Had the vaccine acted injuriously in the seven children who died? MM. Rilliet, Barthez, and Legendre answer this question in the affirmative, believing the vaccination hastens the evolution of the variola, and increases the debility—opinions with which M. Herard does not agree. He also in the 11 successful cases, observed no difference produced in the mode of the development of the vaccine vesicle; but in the 7 children who died from various complications, the vaccine pock was in a very languishing condition. The following are the general conclusions arrived at:—1. When the two eruptions are developed at the same time in a healthy child, the variola is advantageously modified. Its progress is more rapid, and the eruption is more discrete—taking on the character of varioloid. 2. Although vaccination is far from exerting the same effect, and especially in hospitals, on very young and diseased children, being innocent, it should be practised. The danger in these cases is attributable to the smallpox, not to the vaccination, and is produced by complications and bad hygienic conditions. 3. It is not correct to say that the two eruptions exert a reciprocal modification. That which has the priority of invasion (not of infection) influences the other, but is not influenced by it; and as, in almost all cases, the vac-

cine, to become developed, must precede the variola, we may generally state that in the cases where the diseases exist simultaneously, the vaccinia undergoes no modification.—*L'Union Médicale*, Nos. 108, 109, 110; and *Med. Chir. Review*, April 1849.

235.—*Elephantiasis.* By Dr BELLINGHAM.—At a meeting of the Surgical Society of Ireland, Dr Bellingham read a paper on Elephantiasis, and brought forward cases to show that this diseased state is simply an hypertrophied and altered condition of the skin, and subcutaneous cellular tissue, the result of repeated attacks of erysipelas in the part. The paper is a very interesting one, but it is too long for insertion. The conclusions Dr B. arrives at are, *first*, "That the hypertrophied condition of the skin and sub-cutaneous cellular tissue of the lower extremities, which is not unfrequently observed in this country, and gets the name of Elephantiasis, is identical with the disease, which in tropical climates has been variously termed "Barbadoes Leg," "Glandular disease of Barbadoes," "Cochin Leg," and "Galle Leg." *Second*, "That this diseased condition of the lower extremities is not the result of inflammation of the lymphatic glands or absorbent vessels, as supposed by the majority of writers; if these parts do become engaged, they are only secondarily or sympathetically affected. Neither is it the result of inflammation or obstruction in the venous system of the limb, as supposed by others."

Thirdly, "That the diseased state of the lower extremities, familiar to us as Elephantiasis, is nothing more than an hypertrophied and altered condition of the skin, and subjacent cellular tissue, the result of repeated attacks of erysipelas in the part."

With respect to the treatment, Dr Bellingham says, "It is obvious that it is only in the early stage of the disease that treatment can prove effectual in preventing deformity. But even in the further advanced stage, treatment may still do much for its prevention. By methodical bandaging, we may diminish or remove the tumefaction of the limb, which remains after each attack; and by appropriate measures we may prevent, or at least retard, the supervention of the attacks of erysipelas."—*Dublin Med. Press*, December 13, 1848.

III.—PRACTICE OF MEDICINE.

236.—*Effects of Bloodletting and Mercury in Pericarditis.* By JOHN TAYLOR, M.D., Fellow of the Royal College of Physicians in London, and Physician to the Huddersfield Infirmary.—In this communication the author has analysed the forty cases of pericarditis, published in the *Lancet* in 1845 and 1846, in respect to the treatment of the disease.

The cases are divided into two classes:—1. Those occurring in connection with acute rheumatism, the subjects of which were previously in good health; and 2. The cases occurring in connection with renal disease, or in persons in a previously bad state of health.

The patients in the first class, besides being in good health, were younger, and suffered from much fewer complications than those in the second class. Very few of those in the first class died, whereas all died in the second class. The conclusion from these facts is, that the age and previous health of the patients, and the nature of the complicating diseases, have more influence upon the favourable or unfavourable termination of pericarditis than any difference in the treatment.

The remedies whose effects are examined are chiefly blood-letting and mercury.

I.—BLOODLETTING.

The conclusions arrived at are the following:—

1. The duration of pericarditis increases in proportion as the time is longer between the commencement of the disease and the first bleeding.

2. The duration of the cases bled after the first four days is greater by one-half than that of those bled within the first four days from the invasion of the disease.

3. The influence of bleeding was more marked in the cases in which it was copiously and repeatedly, as well as early, practised, than in those in which blood was drawn less frequently and more sparingly.

4. Pericarditis is never extinguished at once by bleeding, however early or however copiously practised.

5. In several cases the pericarditis was suspended for a limited time. The suspension in every instance was immediately consequent upon the local abstraction of blood.

6. It is probable that renal has a longer duration than rheumatic pericarditis.

7. Blood-letting must be less copious, and is more frequently inadmissible, in renal than in rheumatic pericarditis.

8. Bloodletting probably lessens the mortality, inasmuch as it lessens the duration of pericarditis; but direct proof of the reduction of mortality is not to be obtained from these cases.

9. The abstraction of blood by venesection, cupping, or leeches, almost invariably relieved the pain at once, but not permanently. There is no reason to believe that any one form of bleeding relieves pain more effectually than another.

10. Bloodletting never lessened the frequency of the pulse, except when there were signs of the inflammation having abated.

11. The tendency to syncope in some cases of pericarditis renders it necessary to be very careful in abstracting blood by venesection.

12. Free venesection for pericarditis does not always prevent the subsequent appearance of serious inflammation in other internal organs.

II.—MERCURY.

1. The cases in which mercury was given within the first four days had an average duration less by five days than those in which it was given later.

2. The cases in which salivation was produced within the first four days had an average duration less by two days than those in which it occurred later.

3. It is difficult to determine how much of the benefit was due to the mercury, because all the patients who took mercury were likewise bled, and in almost every instance the two remedies were first employed on the same day.

4. The author is inclined to the conclusion that the benefit was due in greater measure to the bleeding than to the mercury, partly because the duration of the disease was more abbreviated in those who simply began to take mercury than in those in whom salivation was produced within the first four days. The administration of mercury coincided with the bleeding, but the salivation did not, and the results are just what might be looked for upon the supposition that the benefit was due to the bleeding and not to the mercury.

5. If the production of salivation had anything like the marked influence in arresting inflammation, and in promoting the removal of its products, which it is currently believed to possess, the duration of the cases of pericarditis after salivation ought to have been much less than it really was. This is proved by a detail of the cases.

(a) Salivation was not followed by any speedy abatement of pericarditis in sixteen cases.

(b) Salivation was followed by pericarditis in five cases.

(c) Salivation was followed by an increase in the extent and intensity of the pericarditis in three cases.

(d) Friction sound ceased two days before the mouth became sore in two cases.

(e) Salivation was followed by a speedy *diminution* of the friction sound in two cases; it did not cease, however, for some days after.

(f) The pericarditis ceased soon after salivation in two cases. In one of them, however, it had been declining for some days before.

(g) Mercury was given, but no salivation was produced, in seven cases.

(h) No mercury was given, nor other treatment adopted, in eight cases.

(i) Cases are detailed exhibiting the occurrence of various internal inflammations during the time that salivation was proceeding. The cases comprise examples of endocarditis, pleuro-pneumonia, pneumonia, pleuritis, erysipelas, and rheumatism.—Royal Medical and Chirurgical Society, in *Med. Times*, July 14, 1849.

237.—*On Enlargement of the Spleen in Children.* By Dr BATTERSBY.—Enlargement of the spleen is commonly supposed to be peculiar to adult life, but the author has observed it seven times in children. In these cases it seemed to be the effect of a too prolonged lactation, the average duration of suckling being in the cases referred to nineteen months. The disease proved fatal to three of the children. The symptoms of this affection are much the same in children as in adults.

"When the spleen has been long affected," Piorry observes, "the skin exhibits a dull aspect; a greyish coloration presenting sufficiently well a light-coloured creole shade, but with colours less warm and more ashy. It is the integuments of the face especially where this colorisation is most remarkable. It is not the yellow ochrey colour of icterus, nor yet the discoloration of chlorosis; it is a shade quite special, which has been very ridiculously called *bluish icterus.* Constantly, when this splenic tint is present, the sclerotic presents a dull *bluish white* under the conjunctiva." The conjunctiva is bloodless, and the patients manifest a perfect indifference to everything around them. They have a sickly pallid look, and the wasting of the body is not in proportion to the paleness; they are truly chlorotic; they have invariably

pica; the bowels are generally irregular; the abdomen is full. The patient's bulk will remain pretty good for a long time, although he will become blanched in a state of anæmia. The blood is not proper in quality; it is deficient in fibrine, and likewise in red particles. The peritonæum sometimes becomes affected, and produces ascites, which renders the detection of the spleen difficult. The diagnosis is generally very easy long before the spleen has attained a large size. The heart is unaffected. It has been said that the spleen is often hypertrophied in scrofula and rickets. This, however, is by no means an established fact; and when there is tumefaction of this organ there is no peculiarity about it, and the other viscera, especially the liver, are simultaneously engaged.—*Dublin Jour.*, May 1849.

238.—*On Pica in Children.* By Dr BATTERSBY.—Dr B. has noticed an occurrence of which he can find, with regard to children, no observation in works treating of their diseases. This is pica, or an appetite for substances which are not food. It is known to affect pregnant women and chlorotic girls.

Dr B. thinks that, in children, pica depends probably on an altered sensibility of the nerves, and acid state of the secretions of the stomach, the consequence of their being fed on depraved milk, or irregularly. As a general rule, this is one evidence of undue lactation, for of fourteen cases in which he noted it, the average duration of suckling was twenty months; six of those cases were suckled two years and upwards; and one, weaned at one year, was continued at the breast for seven months during the utero-gestation of a succeeding child. Of the fourteen examples, seven were cases of hepatitis. The children eat greedily of coals, cinders, ashes, lime off the walls, dirt, paper, and even their own ordure. They are very delicate and wasted; their complexion is sallow, anemic, and waxy; and the abdomen is enlarged. The bowels are generally too free; the stools are of all colours—green, yellow, black, or white. *Dublin Jour.*, May 1849.

239.—*Symptoms of Partial Chorea.* By Dr TODD (Lumleian Lectures for 1849).—1. The affection is not symmetrical—that is to say, one side of the body is more frequently affected than both; or if both should be affected, one is always much more so than the other. In general, this difference of affection of one side remains with that side, whichever it may be; but in rare instances there is a disposition to shift, and for two or three days the right side will be chiefly affected, and then for a longer or shorter period the left side will exhibit the most active movements. This tendency to shift calls to mind a prominent feature of certain rheumatic and gouty affections.

2. Of all the movements which accompany chorea, that of the tongue is the most peculiar and characteristic; indeed I would call it pathognomonic. The patient protrudes the tongue, with a peculiar thrust, to the fullest extent of which it will admit; frequently this is done by one effort, at other times it requires two or three attempts before it can be accomplished. And the subsequent retraction is also peculiar: the tongue is drawn back, supported and guided by the pressure of the teeth, and often very slowly and with great caution. Sometimes this peculiar mode of protrusion of the tongue is the precursor of the other choreic symptoms; and if we had frequent opportunities of seeing the cases very early, I have no doubt that this symptom would be found more frequently the harbinger of the more extensive affection. I have from this symptom only been able to predict with accuracy that an attack of chorea was coming on.

3. The choreic convulsion is frequently succeeded by a paralytic state of the limbs previously convulsed; the convulsive movements cease, and the limbs remain paralysed; the paralysis is seldom complete, although considerable. When the choreic convulsion has affected one side, the paralysis will likewise affect the same side; it will be *hemiplegic*, and will resemble very closely hemiplegia from diseased brain, for which it is very apt to be mistaken by those not aware of this fact. Not long ago a boy was brought to my house for me to advise whether the hemiplegic paralysis under which he suffered should be treated by antiphlogistic means, such as mercury, &c. I soon discovered that the case was one of choreic paralysis, and advised steel and shower baths, and exercise of the limbs, under which he rapidly recovered. In a very few instances paralysis *precedes* the choreic convulsion; but so far as my observation informs me, it is then accompanied by the peculiar thrust of the tongue; by this sign I have been enabled to distinguish it. That paralysis may occur in this way is evidently a fact of the highest practical interest, whilst it is not devoid of importance as bearing upon the pathology of the disease. Nevertheless I do not find it noticed in any of the descriptions of the disease in the practical works which I have consult-

ed. The previous history of the case, the absence of any other symptom referable to the head, and the gradual mode of invasion of the paralysis, in addition to the peculiar mode of protrusion of the tongue, will always enable the careful practitioner to distinguish this paralysis from that caused by cerebral lesion.

4. The heart is very frequently morbidly affected in chorea; and this morbid affection shows itself, not in any disturbance of *the rhythm* of the heart, which, so far as my observation extends, never is disturbed, but in a derangement of its sounds. A bellows-sound is frequently present, and is either aortic systolic, when it is almost always an accompaniment of the anæmic state of the patient, or *much more frequently* it is *mitral systolic* or *regurgitant*. I am surprised that this feature of the clinical history of chorea has not attracted more general attention. It has been well known to me for many years, and I described it in the Croonian lectures on the pathology of rheumatism, which were given by me in this theatre six years ago. But to my friend, Dr Addison of Guy's Hospital, is due, so far as I know, the merit of having first made public the frequent occurrence of this bellows-sound in chorea. What is the cause of this sound? is it due to any irregularity in the muscular action of the heart? a choreic state of that, as of the external muscles, whereby the action of the valves is disturbed? or is it caused by a morbid deposit on the mitral valves, which prevents their precise action? or can it, like the aortic sound, depend on the anæmic state of the patient? I shall answer the last question first. The closure of the mitral valves is the result of the mechanical accumulation of fluid in the ventricle, which presses the valves towards the auricle, their tension being maintained by the chordæ tendinæ —this effect will be produced no matter what may be the nature of the compressing fluid; a mere colourless state of the blood cannot produce mitral regurgitant bellows-sound; some imperfection, either of the valves themselves, or of their mode of apposition, must exist in order to produce such a phenomenon. It is plain, then, that the bellows-sound must be caused by some disturbance in the action of the mitral valves. What, then, produces the valvular derangement? Can it be any disturbance of the muscular action of the heart? any choreic state of the musculi papillares? I apprehend not; for as the closure of the valves is not accomplished by the action of the muscles, it would not be affected by any such irregular muscular action. Moreover, no such choreic state of the heart's action could take place without its being indicated by a disturbance of the heart's rhythm, which, of course, would be very readily detected. Hence, then, we cannot resist the conclusion, that the mitral bellows-sound in these cases is due to such an organic lesion as prevents the complete closure of the mitral valves during the systolic effort of the heart. But now we are met with another question not less important. What can have created this morbid state of the mitral valves? It is rare to meet any symptom of heart affection, either preceding or accompanying the chorea; and the valvular imperfection is often overlooked, and only discovered by careful auscultation of the heart's sounds. The true answer to this question is, I believe, to be found in the fact that many of the patients who suffer from chorea are of a rheumatic diathesis, and that in consequence of this rheumatic state they experience an insidious endocarditis which generally affects the mitral valves. The proof that rheumatic diathesis and chorea are frequently met together, is derived from these facts—that many of the sufferers from the latter malady, when carefully examined, are found to have previously suffered more or less from chronic articular pains, to have sprung from rheumatic or gouty parents, and to exhibit deranged secretions, such as occur in rheumatic states. I have seen many instances of choreic children passing urine of high specific gravity loaded with lithates, and sometimes precipitating lithic acid in very notable quantity, and for a considerable time. Choreic patients often suffer from rheumatic fever; and, as the subjects of that fever are very liable to its recurrence, so a child who has once had chorea is apt to have it again and again.—*Med. Gazette*, May 1849.

240.—*Peculiar Forms of Choreic Affections.* By D. Todd.—There is a curious affection, of which I have met with two examples in my own practice, and of which five or six have been recorded by Albers of Bremen. The prominent feature of it is the inability to hold a pen or to write for any time. The patient begins to write —writes two or three words, when the hand forthwith is spasmodically extended the fingers cease to be controllable, the pen falls away from them. If the patient attempt to control his pen-hand with the other hand, or if any one else does it for him, the movements become worse, and he suffers excessive pain up the arm; yet all other actions are well done, and the

power of the hand to grasp is good. One gentleman thus affected is a man of considerable mental endowments, and he has found it so impossible to overcome the irregular movements of his hand, that he has trained himself to write with his left hand, which he can now do with such facility that he can carry on an extensive correspondence. There can be no doubt that the impairment of speech, which is sometimes a forerunner of cerebral mischief, and which ought always to be regarded as a warning of such an invasion, is of this character. Emotional excitement will cause hesitation of speech in many healthy persons; many can do certain things very well if allowed to take their own time, but if hurried and flurried they are apt to bungle about them very seriously. In one instance I found well-marked choreic convulsions of the right arm, with disturbed intellect, and gangrene of the toes, associated with extensive colourless softening of the left cerebral hemisphere, involving the optic thalamus. Allied to the movements of chorea are the fidgets of children, and, perhaps, also those of grown persons. In some children these fidgetty movements are so excessive, that the child becomes almost a nuisance in a room. All the muscles are affected; the child incessantly makes grimaces of the most various kinds, every minute he assumes a new attitude; if anything comes in his way he must handle or touch it; and these irregularities are always the greater when there is derangement of general health. Children thus affected might readily be thrown into the convulsions of chorea by a strong mental emotion.—*Med. Gazette*, May 1849.

241. — *On the Catarrh of the Mouth.* By Dr PFEUFER.—Dr Pfeufer opposes the prevalent idea, that the appearances of the tongue indicate the state of the stomach, and that its loaded state or perverted sensibility shows the existence of gastric affection. He denies that it undergoes greater changes in the diseases of the stomach than in those of any other part of the body. The stomach may be most extensively diseased by cancer, in which affection congestion and catarrh of the mucous coat is never absent, and yet the tongue continue clean and the appetite good, as also may be the case in chronic inflammation of the organ. The tongue may be loaded, and the appetite lost, in that catarrhal state of the mucous membrance of the stomach termed *gastricismus*, but it is by no means rare to find this not the case. The appetite may be gone, and the tongue be quite clean.

On the other hand, changes may occur in the cavity of the mouth without being at all indicative of disease of the stomach; the tongue may be thick and loaded, an indifference to food exist, and the taste be blunted and pasty, yet whatever the person does take produces no gastric suffering. The affection is, in fact, a *catarrh of the cavity of the mouth.* It may come on quite suddenly under the influence of mental emotion; it accompanies a variety of affections of the mouth and throat, and may be excited by various stimulating articles of diet, or by medicines acting as local irritants. It sometimes passes away in a few hours, and at others lasts for days, and seldom requires treatment, and certainly not the use of emetics and purgatives, which are usually resorted to, the diligent rinsing the mouth with cold water hastening its removal. Occasionally, however, the affection lasts for weeks or months, and then is usually treated by a great variety of medicines as an obstinate dyspepsia; those who can afford it being at last sent to the Spas. These means, proper enough in catarrh of the stomach, are here useless; and with a gargle, composed of a grain or two of corrosive sublimate in a pound of water, the author has several times cured in a few days a disease that had resisted the long train of anti-dyspeptic medication for months. Local sources of irritation, too, must be sought; for it has more than once happened to Dr Pfeufer to relieve cases, by the removal of some sharp fragments of a tooth, which had been subjected to all the approved modes of treating *gastricismus*, and had resisted these, as well as long courses of mineral waters, and the like. An acute form is also sometimes very obstinate, recurring again and again, and giving rise to loss of appetite. It is often very analogous to nasal catarrh, with which it is sometimes conjoined, and then the affection of the mucous membrane is primary. In other cases, however, and especially when produced by mental emotion, and when it is so often erroneously attributed to "bile," there is apparently a primary affection of the nerves of taste and sensation of the tongue, and then the catarrhal secretion is secondary.—*Henle and Pfeufer's Zeitschrift*, Band vii. 180, and *Med.-Chir. Rev.*, July 1849.

242.—*On Protrusion of the Eyes in connection with Anæmia, Palpitation, and Goitre.* By Mr W. WHITE COOPER.—*Cases of Goitre.* By Dr S. SCOTT ALISON.—[The publication, in our February Number, of the remarkable observations of Dr Begbie, on the connection of anæmia

with goitre, protruded eyeball, and symptoms of cardiac derangement, has called forth five illustrative cases from Mr Cooper. Dr Alison's observations also tend to confirm Dr Begbie's views, inasmuch as in two of his five cases of goitre, anæmia existed in marked degree]. Of Mr Cooper's five cases, four were females, and Dr Alison's four cases of goitre were all females. In three of the former series of cases, there had existed derangement of the catamenia, but this consisted in a scanty or altogether suppressed discharge, and not, as in some of the earlier cases described, in an increased flow. No allusion is made in Mr Cooper's cases to any previously existing cause, sufficient to account for the first occurrence of the anæmia. In Dr Begbie's cases menorrhagia and wasting hemorrhage from piles, evidently operated as the exciting causes. With this exception, the cases of Mr Cooper are identical with those of Dr Begbie; the same train of symptoms are manifested, and all appear easily referable to the same pathological condition.

A different explanation, however, has been offered by Mr Cooper in regard to the phenomena presented by the eyeballs. He considers it a simple protrusion, and not a dropsical enlargement, and mentions an explanation of the manner in which this protrusion is caused, as suggested by Mr Dalrymple; the latter believes it to be owing to the operation of two causes, an absence of the proper tonicity of the muscles by which the eyes are retained in their natural position in the orbits, and some amount of venous congestion of the tissues forming the cushion behind the globes.

[This explanation, whether applying or not to Mr Cooper's cases, is, in those recorded by Dr Begbie, inadmissible. That in Dr Begbie's cases true hydrophthalmia existed, there is the testimony of Mr Walker, a most experienced oculist, and both he and Dr Begbie affirm that a positive *enlargement* of the eyeballs existed. Dr Begbie mentions, that vision was not much affected, and the same remark was made by Dr M'Donnell when recording his cases; but though impaired vision is generally considered as a sign or symptom accompanying hydrophthalmia, the exact cause upon which the aqueous effusion depends, will doubtless materially affect the degree in which this symptom exists.]

The treatment of his cases Mr Cooper has conducted with reference to the anæmic condition of the system on which he believes these special symptoms to depend. The most efficacious remedies are iron, aloes, and myrrh, with sedatives, ablution of the body with cold salt and water, followed by friction, and if there be any indications of hysteria, friction along the spine with a stimulating liniment. The application of cold water to the eyes is recommended.

Dr Alison believes goitre to be a local disease, though its rise and progress is favoured by certain general morbid conditions of the system; these general conditions being debility and anæmia. Of treatment Dr Alison speaks of local and constitutional; under the former he recommends pressure, the application of various forms of plasters, of iodine of mercury or ammoniacum, or a combination of these. Under the head of constitutional treatment, when the goitre has been associated with anæmia, the author has prescribed iron, generally the iodide, the valerianate when hysterical symptoms have been prominent. After a time, chalybeates and the mineral acids have been found beneficial. Careful attention to the regimen known to be useful in such cases is enjoined.—*Lancet*, No. 21, vol. i. 1849. *London Journal of Medicine*, No. 6.

IV.—PRACTICE OF SURGERY.

243.—*Treatment for the Cure of Hernia in Infants.* M. Bayard, of Cirey (Haute Marne), after having stated the frequency of umbilical hernia in new born infants, and pointed out the difficulties of keeping the hernia reduced by means of the ordinary bandages, advises the use of the following apparatus:—He takes an oblong piece of cere-cloth, about three fingers' breadth, and twice as long; if it is not sufficiently adhesive, he spreads it over with diachylon. He next takes a small piece of very fine and pliable sponge, nearly as thick as half an almond, and having given it the form of a truncated cone, he fixes its base to the centre of the cere-cloth by means of the diachylon. Then reducing the hernia by the index finger of the left hand, and having warmed the dressing with the right, he applies it quickly, by placing the summit of the cone of sponge on the reduced hernia, and then passing the hand pretty strongly along the cere-cloth, keeping up this light pressure for about a minute to allow the diachylon to attach itself closely. This slight dressing remains, *in situ*, without the aid of compress or bandage, and without any

fear of being deranged by the necessary attention to cleanliness and the other wants of the infant. Its action is to keep the hernia reduced by means of the slight elasticity of the sponge constantly causing a spring. M. B. has never seen the diachylon do any injury to the skin. [Although this means has produced good effects in M. B.'s hands, it is not to be doubted, that the diachylon, although preferable to ordinary bandages, must be very liable to be detached from the skin, either by the movements of the young patient, but more especially from the perspiration which takes place beneath the plaster, if this perspiration be at all abundant. Perhaps this may lead to the trial of, and in case of success, may bring into use, under these circumstances, the adhesive properties of collodion, which he appears not to have thought of.]—*Gazette des Hôpitaux*, 6 *February* 1849.

244.—*Unusual Dislocation at the Shoulder Joint.* M. MALGAIGNE relates a case of unusual dislocation at the shoulder:—François Chauche, 63 years of age, a day-labourer, was admitted into the Hospital of St Louis on the 31st of October 1848. On the 15th August he was thrown from a cart to a great distance, and fell on the tip of his right shoulder; he states that his arm was pressed against his body, but cannot say whether it was carried forwards or backwards. Feeling great pain, and being unable to move his arm, he went to a bone-setter, who applied violent traction, and sent him away with his arm in a sling, saying it was cured. He kept on the bandage eight days, and then tried to move his arm, but in vain, each attempt causing great pain. The pain lessened by degrees, and he could move the arm slightly, but the motion was so confined, that he determined, after two months and a-half, to come to the hospital. The shoulder presented a singular deformity. It was flattened as in ordinary luxations, the finger could be passed into a depression immediately below the acromion, and the glenoid cavity was evidently empty. Moreover, the two corresponding edges of the acromion, as also its anterior angle, could be easily felt; in front of this angle, almost beneath the clavicle, there could be seen and felt a large, hard, and spherical projection, continuous with the shaft of the humerus, obeying all the movements given to that bone, and which evidently was the head of the humerus. On its external surface was the anterior or internal surface of the acromion; on its superior, the inferior surface of the clavicle, and it almost completely filled up the space between these two parts. The projection was so great, that it extended for two inches beyond the anterior surface of the clavicle; and it was so superficial, that at some parts it seemed subcutaneous; at the most prominent part the thickness of the integument and muscles was only one-third of an inch, and a little further inwards only a quarter of an inch. M. Malgaigne's opinion was, that the head of the bone had at this spot separated the deltoid and great pectoral so as to become almost subcutaneous. To satisfy himself, he ordered the patient, while the elbow was pressed against the body, to endeavour to remove his arm, and, accordingly, he felt the borders of the two muscles contract and leave an interval between them of less than an inch where the head of the bone was only covered by skin. It was evident, then, that the head of the humerus had been carried forwards and upwards above the coraco-acromial ligament and coracoid process; this process could not be felt, the head of the bone completely covering it. On the uninjured side it was deeply situated, somewhat more than an inch behind the level of the clavicle. The following measurements are given by M. Malgaigne (the *centimetre* is nearly two-fifths of an English inch):—The clavicle was 17 centimetres long, the most internal part of the dislocated head was 9 centimetres from the sterno-clavicular, and 8 from the acromial articulation. On the left side the clavicle measured a little more than 13 centimetres (?) It was necessary also to examine the disposition of the neighbouring parts. At first sight the arm appeared to be shortened, and, in fact, the head was seen projecting above the top of the acromion. However, by measuring the arm, and also the anterior parietes of the armpit, there was found to be only half a centimetre of shortening. The armpit was quite empty and free, so high that the whole finger could be passed into it. The elbow was not very much drawn out from the body, and a ribbon stretched from the posterior angle of the acromion to the epicondyle was not drawn out from the insertion of the deltoid even a centimetre; while, on the sound side, it was more than one. There was no abnormal rotation. The condyles of the humerus had the same relations as on the sound side, and so also had the shoulder-blade. — *Revue Medico-Chirurgicale de Paris*, Jan. 1849.

245.—*Diseased Prostate Gland.* By Dr MAYNE.—Dr Mayne presented a recent specimen of diseased prostate gland, taken from the body of a man aged seventy-two, who lately died of dysentery

in the Hospital of the South Union. The prostatic disease, under which he had laboured for a considerable period, was attended by the ordinary symptoms, but towards the close of the case it was marked by the occurrence of some uncommon circumstances, which induced Dr Mayne to lay the specimen before the society. This patient frequently suffered retention of urine, occurring at intervals of three or four weeks, easily relieved by the catheter and again brought on by exposure to cold, by any irregularity of habits, and very often by permitting the bladder to become too much distended; he was in the habit of occasionally absenting himself from the work-house on leave, and was always observed to return suffering from retention. In June last he had gone out, as previously, on leave; he was absent much longer than usual, but when he returned he was not suffering from retention. This excited some curiosity, and being questioned, he acknowledged that, immediately after he had gone out, he was attacked by the complaint, and not wishing to return so soon, he had applied to a medical practitioner, who proceeded to relieve him by introducing a catheter. This he described to have been effected with great difficulty; that blood flowed away before the urine began to be discharged, and that he was directed to retain the instrument in the bladder for some days. The result was, that from that period to his death, an interval of about seven months, he had no return of the complaint. So pleased was he with this, that he used to contrast very unfavourably the medical practice of the hospital with that of the surgeon by whom he said he had been perfectly cured at once.

Upon examination after death, the prostate was found enlarged in all its lobes; the third lobe projected from behind forwards, and a false passage had been effected through it, which had become established as a new portion of the canal for the passage of the urine, which had continued to be discharged by it.—*Dublin Quarterly Journal of Medical Science.*

V.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

246.—*An Account of the "Flemish Twins;" two Infants united by the Anterior Wall of the Abdomen.* By Dr VERHAEGHE, of Ostend.—On the 27th of May last, there was born at Erneghau, a village situate about four leagues from Ostend, a double monster, which, according to the classification of Geoffrey St Hilaire, belongs to the family Monomphalia (*one navel*), and to the genus Xiphopaga (*xiphoid-*[*cartilage*] *swelling*).

It consists of two bodies, which are perfectly distinct, but are united together in that extent of the abdominal parietes comprised between the xiphoid cartilage and the navel. This junction is not formed by a species of band or tie; on the contrary, it consists of an intimate fusion of the abdominal parietes of one infant with those of the other. The xiphoid cartilages are curved forwards and sideways, approaching each other so as to unite by their summits, and form an obtuse angle. The umbilicus is single for the two children, and is situated at the bottom and on the anterior part of the inferior commissure of this junction. The extensibility of the parietes of the belly allows of the children being placed, the one on the right flank, and the other on the left, so that they look obliquely at each other. In consequence of this extension of the abdominal parietes, they can be made to take the appearance of a large band, or of a means of union like that of the Siamese twins.

The most natural position, and that in which the point of junction experiences the least tension, is that in which the two infants are turned face to face and belly to belly; but, as we have just said, the extensibility of the abdominal walls permitting them to lye obliquely, almost side by side, it is in this position that they are habitually found.

This union does not constitute a simple juxta-position, as one might at first be disposed to think; but there is a true and intimate fusion of the epigastric parietes, and very probably (not to say certainly) a communication of the abdominal cavity of the one with that of the other. In point of fact, the seat of the junction is resisting and elastic in all its parts; and percussion gives *everywhere* a very clear tympanic sound,—a fact which proves that beneath the finger which percusses there are hollow viscera filled with gas (either stomach or intestine, or, perhaps, both these together). The height of this union is 68 millimetres, or about two inches English, and its thickness from before backwards is 38, or $1\frac{1}{8}$. The circumference of the two bellies thus united is 47 centimetres, or about 14 inches.

The children, who are of the female

sex, are well developed, nevertheless their bodies are rather small in size; the four arms and legs are equally developed respectively. There is no concord of the functions; each has a separate life; so that often the one sleeps while the other is crying and weeping, or the one eats and takes the breast while the other continues sleeping.

So also the act of defecation does not occur simultaneously in both. Syrup of violets given to the one provokes evacuations of a deep green colour; while the stools of the other are devoid of this coloration, and *vice versa*,—a fact which sufficiently demonstrates that each of them has a distinct digestive apparatus.

The parents are of good constitution, and belong to the class of day labourers. The father's age is 44 years, the mother's 38; they have previously had three children, whereof one is still living. The mother states herself to have experienced nothing at all remarkable during pregnancy.

The labour lasted a long time, and the expulsive pains were very severe. The child on the right was the first to be expelled, the head presenting: the other followed five minutes after; but, according to the midwife's statement, its feet came first. There was but one navel string and after-birth.

These truly curious beings, whom we propose to designate "*The Flemish Twins*," have received names, the eldest that of Marie, the youngest Sophia. They continue to enjoy good health, and everything promises that they will continue to live.

The question has been proposed to me as to whether it would be possible to separate them by an operation; but the results furnished by palpation and percussion of the seat of junction, give a strong presumption of a communication between the two abdominal cavities, and have thus dictated to me an answer in the negative. —*Med. Times*, 4th July 1849.

247.—*On Neuralgia of the Cervix Uteri.* By M. MALGAIGNE.—M. Malgaigne believes this to be by no means the rare disease it is generally thought to be. There are, indeed, two forms of neuralgia of the female genital organs—neuralgia of the cervix, and neuralgia of the appendices. Neuralgia of the cervix is often combined with leucorrhœa, or with an engorged state of the neck or body of the uterus. Its essential characteristic is the presence of a painful point, generally a solitary one, and almost always seated anteriorly, and towards the left. It is very rare for this tender spot to exist without being accompanied by neuralgic pains in the abdomen, loins, epigastrium, &c. These painful irradiations vary, both as regards their seat and extent, and are very likely to be mistaken for other affections. In several cases mere repose gives great relief; but in obstinate cases the greatest variety of means are sometimes unavailingly tried. M. Malgaigne, calling to mind, that in other neuralgiæ, the causes of which he could not discover, he had by their obstinacy been driven in despair to divide the affected nerve, resolved to proceed in an analogous manner in this case, and the incision of the painful point of the cervix was attended with great success. He has now performed the operation several times, and in but two instances has hemorrhage occurred, in both of which the curved scissors had made the incision horizontally. The vertical section has been attended with the loss of only a few drops of blood.—*Rev. Méd.-Chir.*, iv. 333-40, and *Med.-Chir. Rev.*, July 1849.

248.—*Intra-vaginal Respiration recommended in some cases of Parturition where the Child's Life is in Danger from Pressure on the Cord.* By M. M'CULLOCH, M.D. —The writer desires to make known a new mode of practice, by which he thinks that the amount of infant mortality will be lessened in many cases in which death, from pressure on the cord, is otherwise inevitable. "If we take the average of French, German, and British practice, we find by the most authentic statistics that danger to the life of the child from this cause occurs in breech presentations once in 53 labours; in presentations of the superior extremities, after turning, once in 261; and where the cord presents, once in 245 cases. Thus we have in 649 labours 12 presentations of the breech, 7 of the inferior extremities, 2½ of the superior extremities, and 2½ of the cord, occasioning a loss of life at birth of about two per cent. of all children born. This great mortality I think I have succeeded in diminishing in my own practice in three footling cases within the last eight months, by enabling the child to breathe while the head was still within the cavity of the pelvis, after the pulsation in the cord had been several minutes extinct. And this novel state of existence was maintained by keeping the child's mouth open with my finger, and the perineum expanded to allow air to have free access into the vagina. In future, I shall endeavour to accomplish this object with greater certainty by introducing into the mouth the end of the largest-sized gum-elastic male catheter,

with several perforations in it, and continue as before to allow as much air as possible to approach the face and nostrils. In all cases of malposition in which the practice I have suggested becomes desirable, the chance of respiration being established will be greater, if the means are used before the circulation becomes feeble in the umbilical vessels; and if the child is born alive in the absence of pulsation in them, it may fairly be conceded that we have been successful in our efforts to preserve life. Some cases may occur where a small-sized male catheter, with a suitable curve, might be used with advantage as a tracheal pipe. I need scarcely add that the infant's body should be kept warm, gentle traction employed, and all the other ordinary means of exciting contraction of the uterus used until the delivery is completed.

"If the practice I have here recommended is found to answer in other hands as it has in my own, something will have been achieved in obstetric science, in circumstances where the most skilful have hitherto frequently had to lament their inability to save the child's life."—*British American Journal*, May 1849, and *Med. Chir. Rev.*, July 1849.

VI.—MATERIA MEDICA AND THERAPEUTICS.

249.—*Lemon Juice in Rheumatic Diseases.* By Dr G. O. Rees.—Dr Rees directed attention, some time ago, to the beneficial effects of lemon juice in acute rheumatism, and he has more recently put forth, in the form of a pamphlet, the details of eight cases of this disease, successfully submitted to the new treatment. He considers the lemon juice superior to colchicum in its power of affording early relief to pain, subduing fever, and shortening the duration of the disease, and the cases recorded, so far as they go, undoubtedly warrant this statement. But, with a disease so capricious in its nature as acute rheumatism, a very extended experience is necessary to arrive at a correct estimate of the value of any new method of treatment. It so often happens that a number of severe cases, occurring consecutively, get well with unusual rapidity under all kinds of treatment, that we are led to attribute the recoveries to some accidental peculiarity in the nature of the disease itself, and not to the treatment employed.

The form of rheumatic disease in which the greatest benefit would appear to have been derived from the use of lemon juice, is acute rheumatism; and that form of rheumatic affection involving the smaller as well as the larger joints in acute inflammation, known as rheumatic gout.

In cases of pure gout, in which the inflammation is high, it is said that great advantage has been obtained, while in sub-acute and more chronic forms of the disease, the same marked benefit has not been experienced. Nor is it found in acute rheumatism that benefit accrues from continuing the remedy when the inflammatory symptoms have been checked, and debility remains.

In doses of half an ounce to an ounce thrice daily, the lemon juice appears to exert a marked sedative effect on the circulation; in one case, the pulse, which was 120, and full, was after one day's treatment reduced to 75, and rendered at the same time smaller; in another case, the pulse, which was 110 when the lemon juice was first given, was in two days reduced to 100, and in four days to 74. If we can rely on results obtained in one experiment, this action is manifested also in the healthy body. A clinical clerk took one ounce of the juice three times a day for three days, and carefully noted his pulse, which was naturally full, and 75 in the minute. After five doses the pulse became much weaker and more compressible, and numbered 70 in the minute; conditions accompanied by a feeling of general depression. On the third day the pulse became as low as 66, and was very small and compressible. The urine was always acid, and also natural in quantity till the third day, when it increased somewhat; the specific gravity was then 1·017, and there was a deficiency of lithic acid.

In the cases of rheumatism related by Dr Rees, the urine was never rendered alkaline by the use of the lemon juice, and in one case, in which the urine was alkaline before treatment, it became acid after the juice had been employed. We think it premature to speculate on the *modus operandi* of the drug, until its utility shall have been confirmed by more extended experience, and before we are in possession of more accurate knowledge as to its physiological action, more especially in reference to its effects on the urine, and the quantity of solids contained in that secretion.—*The Treatment of Rheumatic Diseases by Lemon Juice, with Cases.* By G. O. Rees, M.D., F.R.S. London, 1849.

250.—*On Glycerine and its Therapeutic Uses.*—The employment of glycerine as a local application in the treatment of deafness, and also for other purposes as a medicinal agent, has induced us to offer a few remarks on the preparation and properties of this hitherto neglected body.

To obtain glycerine, any fatty matter is saponified by a caustic alkali. The solution being decomposed by tartaric acid, which precipitates the fatty acid, is to be evaporated, and the glycerine dissolved out by strong alcohol. For medicinal use, it is best obtained by evaporating the water used in making *emplastrum plumbi.* Any lead which it may contain is removed by a stream of sulphuretted hydrogen passed through it when in a diluted state. If necessary, it may be boiled with animal charcoal, filtered, and evaporated.

It is a colourless syrup, sp. gr. = 1·26; it dissolves in water and alcohol, but is insoluble in ether (Kane's Chemistry, 1849, p. 872). Glycerine undergoes no change by keeping, but it is decomposed by heat; and when mixed with yeast, and kept in a warm place, is gradually decomposed, and converted into *metacetonic acid.* Its formula is $C_6 H_7 O_5 + Aq$.

Glycerine has a strong attraction for moisture, and being of a bland innocuous nature, it is obviously well adapted to afford a permanent moist covering to any part of the body to which it may be applied. It was first employed by Mr Yearsley in cases of deafness, arising from partial destruction of the membrane of the tympanum, and Mr J. Wakley and others have extended its employment to all cases of deafness accompanied by dryness of the external meatus, and it is probable that in some cases of this kind it may be more serviceable than the almond oil commonly employed to remedy a deficiency of cerumen. Dr Paterson of Edinburgh has obtained some improvement in one of three cases in which he applied it. A small piece of cotton wool is moistened with the glycerine, and introduced into the ear. When there is loss or partial destruction of the tympanum, we are directed to use a very small quantity of wool, and to moisten it well with the glycerine. This is passed to the site of the membrane, and when there, "the spot must be found which it is indispensable the wool should occupy and cover; for then only, and not till then, will success attend the application, and the patient regain the hearing."

Glycerine has been employed also as a local application in psoriasis by Mr Startin, and, it is said, with advantage.—*Pharm. Journ., Med. Times,* and *Lancet.*

251.—*On the Purgative Properties of the Oil of Anda.* By Mr Ure.—The plant which yields this oil is the *Anda Gomesii,* a member of the natural order of *Euphorbiaceæ.* In the *American Cyclopædia of Practical Medicine and Surgery* (vol. i., Philadelphia, 1834), we learn that "the part used in medicine is the fruit, which is about the size of an apple, and of an ash colour. On removing the external husk, a nut is presented to view, which is about two inches in diameter. It has a hard shell, which on being broken exhibits two cells, each containing one seed about the size of a chestnut. * * * By expression these seeds furnish a clear, pale, yellowish oil, which is destitute of taste and almost of smell; at common temperatures as fluid as olive oil." From experiments made in the Pennsylvania Hospital by Dr Norris, it appears that in doses of fifty drops it generally induced one evacuation, and in larger quantities operated copiously.

Mr Ure has found twenty drops a sufficient dose. He administered it on sugar. It offered nothing unpleasant to the taste, produced none of that heat in the throat which croton oil creates, and seldom occasioned nausea or griping; it rarely operated within a period of two hours, although in one or two instances he had known it act within half-an-hour after its ingestion.—*Pharmaceutical Journal,* July 1849.

252.—*Collodion as a Coating for Pills.* By Mr Durden.—For this purpose the pills may be placed on the point of a fine pin or needle, and dipped into the solution of gun cotton. The solution Mr Durden used had a sp. gr. of 0·810, and he found that two dippings gave a perfect coating. An aloetic or colocynth pill thus covered may be placed on the tongue, and no taste experienced of its bitter ingredients. Solution of gutta percha in chloroform, and bisulphuret of carbon, effect the same purpose, but the collodion is preferable.—*Phar. Journal,* March 1849.

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CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

253.—*On the Physiological Anatomy of the Spleen.*—By W. R. SANDERS, Esq., M.D.—Dr Sanders arrives at the following conclusions, which he gives at present without any details:—

I. The malpighian glandulæ or sacculi, and the pulp of the spleen, constitute a true secreting apparatus.

A. The malpighian sacculi are hollow spherical membranous bags, completely closed, and filled with organised contents; they are attached to the trabeculæ by an arterial pedicle, and are imbedded in the pulp.

Saccular Membranes.—The outer membrane of the sacculi is fibrous, and contains *arterial* ramifications and numerous capillaries; their inner membrane is granular.

Saccular Contents.—On the inner surface of the membrane is applied a complete layer of nucleated cells; which are clear (not granular), of about 1-1200th inch diameter, and of a light yellowish colour, when not altered by the action of water. The rest of the interior of the sacculus is filled up by free corpuscles (containing nucleoli) of a light greyish colour, and of

about 1-4000th inch diameter, corresponding precisely with the nuclei of the cells, and by a homogeneous or slightly granular plasma.

The perfection of the forms, the constancy and uniformity of appearance of these corpuscular elements, together with their re-actions under water, acetic acid, &c., are extremely characteristic, so that they are easily and distinctly recognised. There is also evidence of the growth and maturation of the sacculi. This part, therefore, of the glandular anatomy of the spleen exhibits characters as perfect and as truly distinctive as the glandular elements of the liver, kidneys, salivary glands, &c.

The sacculus is the formative secreting organ, analogous to the acini of known secreting glands.

B. The splenic pulp consists, like the contents of the sacculi, of plasma and corpuscles; but the nucleated cells are extremely few, and mostly granular—hence the reason why they were not detected by observers who did not examine the sacculi apart from the pulp with sufficient care; the plasma is full of granules, which are distinct, and infinitely more abundant, than within the sacculi; and the corpuscles, instead of a regular uniform shape, are mostly angular, deformed, with great variety of shape and appearance, and *breaking up into granules*. These corpuscles are often, also, of a reddish colour; and, besides them, coloured semi-crystalline particles, of a deep red or yellow hue, and whose true relation is not yet perfectly made out, are found in the pulp.

The pulp is, therefore, that part of the glandular apparatus where the corpuscles of the spleen become disintegrated and dissolved into granules and plasma; and, if the sacculi are analogous to acini, it is probable that they burst and effuse their contents into the pulp, where they undergo degenerating changes, becoming thus fit for absorption: the pulp being a reservoir or *duct*, in which the secreted product is lodged for a time, and undergoes the ulterior changes of maturation and solution.

II. The veins are the absorbent elements of the spleen, and carry away its secretion.

This is rendered probable by their extraordinary number and size; by their abundant ramifications in the *pulp* (while the *arteries* are spread over the secreting *sacculi*); by evidence derived from the composition of the splenic venous blood, as shown in Béclard's recent comparative analysis of splenic and other venous blood (Archives Générales de Médicine, Oct., Nov., Dec., 1848); and by general analogy in the nature, functions, and relations of the portal circulation in the adult and in the fœtus.

III. The blood circulation within the spleen is peculiar, but the peculiarities are not confined to the venous circulation, as has been generally supposed, but are common to it with the arterial. Its general principle is, "the sudden and immediate transition from very large to very small vessels," which renders the circuit of the blood-current extremely short. This general rule does away with all the minor differences of vascular distribution found in the spleens of man, the horse, and dog, &c., compared with those of the sheep, bullock, &c.

The venous cells of the spleen, though, under certain circumstances, an undoubted appearance, are entirely artificial, and always produced by methods of preparation, on which no reliance should be placed.

There is no satisfactory evidence that the lymphatics are the excretory ducts or the spleen; nor that its fibrous tunic of trabeculæ are muscular, or anything more than very elastic.

Conclusion.—The spleen is a true secreting gland; and its product, which is some organised or organisable albuminous compound, is absorbed into the venous blood of the portal system, and *contributes*, but is not essential to, nutrition.

The elements here mentioned are constant; they are easily made out in the spleens of the bullock, sheep, &c., *when quite fresh*. In the human spleen, they are in general less easily analysed; but the microscope shows them to be identical, and, further, thus affords the means of recognising and establishing the existence of the malpighian sacculi, when (as not unfrequently happens in the human spleen) they are not visible to the naked eye, or, at least, not distinguishable from the pulp. —*Med. Times*, April 21, 1849.

[The lately published researches of Kölliker and Gerlach on this subject, are confirmatory, in some points, of Dr Sanders' observations. We shall lay them before our readers as soon as the paper of the former in the "Cyclopædia of Anatomy and Physiology" is completed.]

254.—*On the Ganglia and Nerves of the Heart.* By ROBERT LEE, M.D., F.R.S.—In the number of our RETROSPECT for August 1848, we gave an account of the investing fibrous membrane or fascia, which Dr Lee has found to exist between the serous pericardium and the muscular sub-

stance of the heart. It is in this fibrous membrane that Dr Lee finds the numerous branches of nerves, which he describes as being distributed to the muscular fibre of the heart, independently of those which had been described by Scarpa and others, as passing, along with the urinary arteries, into its substance. The nervous branches described and figured in Dr Lee's paper, in the Royal Society's Transactions, take a course, in many instances, across the arterial branches, and are enlarged into ganglia at the points of contact with the nerves accompanying these (see especially plate 3 of the paper alluded to).

"From the examination," says Dr Lee, "which I have made of the nerves of the healthy and malformed fœtal heart; of the hearts of birds; of the heart of the child at the ages of six and nine years; of the heart of the adult in the sound state; of the human heart slightly and greatly hypertrophied; and of the heart of the young and adult ox, the following conclusions may be deduced:—1st, That the blood-vessels and the muscular structure of the auricles and ventricles of the heart are endowed with numerous ganglia and plexuses of nerves, which have not hitherto been described or represented in the works of anatomists. 2dly, That the nervous structures of the heart, which are distributed over its surface to the apex, and throughout its walls to the lining membrane and columnæ carneæ, enlarge with the natural growth of the heart before birth, during childhood and youth, until the heart has attained its full size in the adult. 3dly, That the ganglia and nerves of the heart enlarge like those of the gravid uterus when the walls of the ventricles are affected with hypertrophy. 4thly, That the ganglia and nerves which supply the left auricle and ventricle in the natural state, are more than double the size of the ganglia and nerves distributed to the right side of the heart."—*Phil. Trans.*, Part I. for 1849; *Med. Times*, August 11, 1849.

255.—*On the Effects of highly-condensed Air on the Organ of Hearing.* By Dr Detmold. — The first phenomenon which was observed when the men entered into the condensed air was a more or less severe pain in the ears. This pain commences immediately on entering into the compressed atmosphere, and ceases as soon as an equilibrium is established between the condensed air and the air which is contained in the interior of the ear. This explanation appears the more probable, as the pain was easily removed by the act of deglutition. In some of the workmen this pain in the ears was so slight as to be hardly perceptible, while in others it was very intense. With others, again, it did not exist at all in entering into the condensed air, while it became very severe on leaving it, and getting out into the open atmosphere; the latter case was, however, of rare occurrence. A certain bodily disposition seemed to exert some influence upon the degree of pain which the men experienced, as the same person would one day feel it only very slightly, while at other times, apparently under the same circumstances, the same person would suffer intensely. Besides, the fact was established, that the pain would be lessened in proportion as the transition from the open air into the condensed, and from the condensed into the open air, was slower and more gradual.

One of the miners, a man by the name of Floc, who had been deaf since the siege of Antwerp, always heard better in the condensed air than any of the other miners who were not deaf. We regret that we only find this brief statement of the bare fact, without mentioning anything of the nature or cause of the man's deafness, precluding thus any conclusions at which we or our readers might have arrived. It might be that the cause of the deafness was an obstruction of the Eustachian tubes, from thickening of the lining membrane, which was temporarily removed by the pressure of the condensed air. But why, then, should he hear better than any of his companions who were not deaf?—for the comparison which is made seems to imply, that the hearing of those who were not deaf became imperfect in condensed air. It must, therefore, have been a cause which, while it affected a sound ear, temporarily restored a diseased organ. May not condensed air act as a stimulus upon the organ of the ear, which, while it is too powerful for a sound ear, excites to action an organ perhaps partially paralysed, which requires an artificial stimulus—a result analogous to the fact, that a person suffering from nervous deafness hears better in a noisy place; as, for instance, when riding in a carriage? Or does condensation alter the sound-conducting property of the air? Are the vibrations of condensed air more intense, or less so, than those of the air when under no pressure?—*New York Jour. of Med.*, Sept. 1843.

256.—*New Injection.* By Mr Goadby. —Mr Goadby has succeeded in obtaining complete injection of the finest capillaries, by employing the acetate of lead and bichromate of potass, dissolved in separate

portions of water, thickened by the addition of gelatine. This is an improvement on Gruby's injection, which consists of the acetate of lead and chromate of potass, in separate portions of pure water. Like others, Mr Goadby has found Gruby's method very unsatisfactory; the vessels being flat, and a well-injected piece of tissue being so rare, that, in the words of Mr Bowman, the operator must consider himself well rewarded for two or three days' work if he succeed in finding a microscopic piece finely injected.

With the ordinary vermillion and size injection, satisfactory results are seldom obtained. The chromate of lead, used like vermillion in the ordinary way, does not prove superior to the latter, but succeeds better than when a salt of lead and the chromate of potass are used separately and dissolved in water, as in Gruby's injection; in the latter case the solution of the chromate was found to pass out through the coats of the vessels as rapidly almost as it was injected.

By giving some consistence to the fluids injected, this rapid transudation is prevented; the capillaries are freely distended, and are kept permanently so by the insoluble bi-chromate of lead which is formed when the two fluids meet.

Mr Goadby's injection is compounded as follows:—

Take of a saturated solution of acetate of lead ℥viii.; and of a saturated solution of the bichromate of potass ℥viii.; put them in separate vessels, and to each of them add a solution of gelatine, consisting of water ℥viii., and gelatine ℥ii. (the gelatine having been previously slowly dissolved in the water by the aid of heat); mix well by stirring with a glass rod, strain through fine flannel (a separate piece for each fluid), and raise to a temperature of 90° in a water bath. The fluids are now ready for use. Inject the potass first, then the acetate of lead. The part to be injected must be thoroughly warmed by being immersed for an hour or two in water at 90°.

The following is Mr Goadby's plan of procedure when operating on a fœtus, which, from there being no cut vessels, is best adapted for general purposes. A pipe is to be put into the umbilical vein, and the arteries are to be left open until the yellow fluid begins to flow from them, when they are to be tied. The whole 16 oz. of the prepared potass solution is now to be injected; and the piston should be made to descend so slowly as scarcely to be seen moving. The other solution is now to be thrown in in the same manner, when the yellow colour will instantly appear. In about half-an-hour 8 oz. of each fluid are to be again injected in the same order as before; and this is to be repeated in another half-hour; and after this the subject will require another batch still. Towards the conclusion the fluids should be thrown in alternately; and the process should be continued so long as the injection is felt to flow in vessels. The distension of the body is very great; and the piston may be pushed home and rise again several times, without causing any extravasation. To inject a fœtus on this plan will occupy four to five hours; the temperature of the body must be kept at about 90° during the whole process, and when this is finished the body must be put into cold water; next day it is ready for dissection.—The dissection is a disagreeable and difficult task. Nearly all the gelatine and acetate of potass is found to have passed out of the vessels, and to have separated the tissues widely from each other; the colouring matter of the blood has passed out in the same manner and stains the gelatine. The gelatine, says Mr G., separates and defines the different layers of vessels; the arteries are distinguished by the purity and richness of the colour, while the veins are detected by the altered colour imparted by the blood.

So universally does this injection permeate, that Mr G. was occupied in dissecting the various parts of a fœtus ten hours a-day for two months, and even then the subject was scarcely half exhausted. This contrasts strongly with the statement of Mr Bowman quoted above.

This injection is not fitted for the pathologist, as, according to Mr G., the infiltration of the gelatine produces new and puzzling appearances.

If the specimens are to be preserved wet, Mr G. recommends them to be kept in his B. fluid; if dry, it is sufficient to wet them with oil of turpentine, and they may then be put up in Canada balsam. In examining dense tissues, such as the skin, dilute nitric acid may be used as a corroder; liquor potassæ may answer better. Mr Goadby has found that in specimens several years old the capillaries are destroyed by the acetate of potass; he would therefore recommend the use of the *nitrate* instead of the acetate of lead, the nitrate of potass, which is formed during the process, acting as a preservative of the tissues. The gelatine employed by Mr G. was that sold by pastry cooks at 3d. per ounce; common size is too coarse; isinglass is expensive; the French and Russian glues to be had at the same places are well fitted for the purpose.—*Lancet*, March 17, and May 12, 1849.

II.—PRACTICE OF MEDICINE.

257.—*On the Treatment of Chorea.* By M. A. Trousseau and Ch. Lasègue.—In the last Number of the Retrospect we gave Dr Todd's account of chorea, and his observations on the interesting relation which subsists between that disease and affections of the heart. That connection Dr Todd accounted for by assuming the dependence of the two diseases on the same morbid diathesis—the rheumatic; the unhealthy condition of the blood being the exciting cause of an insidious endocarditis in those labouring under chorea. Our readers will recollect that similar views of the connection between chorea and rheumatism were brought before them, upwards of two years ago, by Dr Begbie (Monthly Journal, April 1847), who adduced some striking facts to prove that many of the sufferers from chorea inherit the rheumatic diathesis, or have themselves suffered from rheumatism, either in an acute or chronic form, and that in both of these classes the affections of the heart had been manifested.

The paper of MM. Trousseau and Lasègue—now before us—affords new proofs of the correctness of Dr Begbie's theory. These authors have had numerous opportunities of observing affections of the heart occurring in chorea, which they allege to be similar to those which supervene on acute rheumatism. Their more immediate object, however, is to direct attention to the employment of nux vomica as a remedy in the treatment of chorea. The preparation they have used is the sulphate of strychnine—a preparation of the alkaloid, very soluble, and consequently easy of administration. Of the sulphate they directed a syrup to be prepared, in the proportion of 5 centigrammes ($\frac{4}{5}$ths of a grain) of the sulphate of strychnine to 100 grammes (3 oz. 2 drs.) of simple syrup; and this is the exact form they have employed, augmenting or diminishing the amount of the sulphate, according to the effects produced by its administration. Being a powerful remedy, and one whose immediate effects on particular constitutions will vary, its first doses should be small, and carefully regulated. In children of from six to twelve years of age the authors have commenced with six teaspoonfuls during the day; in adolescents, six dessert spoonfuls; in adults, three large spoonfuls. The doses are equivalent in the first case to thirty, in the second to fifty, and in the third to sixty, grammes of the syrup—twenty grammes of which contain about one centigramme ($\frac{1}{7}$th of a grain) of the salt of strychnine. These doses were increased or diminished, according to the effects produced; sometimes the same dose was continued for a few days. Under the influence of the remedy, there is produced a perceptible rigidity of the jaws, the neck, back, and limbs. This state does not continue long; there exist along with it a tendency to sleep, and a slight degree of fever. It is on the occurrence of these physiological effects that the authors have found the disease to yield and decline; and they have, therefore, recommended the persistent use of the strychnine until they are induced. Several interesting cases are related in confirmation of this point. The employment of the ordinary constitutional means is insisted on during the treatment of chorea by strychnine. In cases of chorea, where a state of partial paralysis had supervened, the authors have employed this remedy, and tested its efficacy.—*L'Union Médicale*, June 1849.

258.—*Puerperal Convulsions; their dependence on Toxæmia; explanation of their more common occurrence in Primiparæ.* By Dr Cormack.—Dr Cormack details the history of three cases of puerperal convulsions, which had occurred in his practice. The main object of his paper is to point out the connection between renal congestion and puerperal convulsions, which exists in a very great proportion of cases. He considers puerperal convulsions to be —though not always, yet generally—the toxicological results of non-elimination of the excretions of the blood; and that, in by far the greater number of cases, this non-elimination depends on renal congestion, caused by the pressure of the gravid uterus. Œdema and albuminuria are frequent concomitants or precursors of convulsions, as shown by Dr Lever and by MM. Devilliers and Regnault. The gravid uterus, or any tumour pressing on the renal veins, must cause congestion of the kidneys and consequent toxæmia; and this is the more injurious to the pregnant woman, as her blood requires an extra degree of depuration both from excrementitious matter from the fœtus, and also from the elements of milk. Retention of these should, Dr Cormack thinks, be considered as the cause, not only of convulsions, but also of various other distressing symptoms occurring in pregnancy. Uterine epilepsy probably often arises from toxæmia; and the suppression of the lochia may induce post-partum puer-

peral convulsions. When convulsions recur after delivery, we must suspect structural renal disease. The explanation of delivery generally arresting convulsions is not so much that uterine irritation is lessened, as that the hyperemic state of the kidneys is relieved. The most common subjects of puerperal convulsions are strong healthy young women, pregnant for the first time; and an examination of the cases recorded by authors proves this fact. In them the abdominal walls are most unyielding, and unable to relax under the pressure of the gravid womb. Cases of puerperal convulsions in subsequent pregnancies might be either toxemic or non-toxemic. The toxemic cases may be classed under the following heads:—1. Persons who have never gone to the full time; 2. Persons of extreme muscular development; 3. Persons suffering from structural disease or obstruction of the kidney; 4. Excessive volume of uterine contents, including twin cases, &c. Dr Cormack is desirous of drawing attention to toxæmia as a cause of puerperal convulsions, and also of recognising non-toxemic convulsions. He thinks that Dr Tyler Smith, who has treated this subject more philosophically than any preceding writer, has, while recognising toxæmia, attached too little importance to it. —*Proceedings of Westminster Medical Society, in Med. Gazette*, June 15, 1849.

259.—*Notes from the Clinical Lectures of M. Bouillaud.* By M. LEFEVRE.—*Pneumonia.*—In ten cases of this disease, four were double, two occupied the whole extent of the right lung, three the base, and two the summit. In all it was clearly marked, in eight being in the second stage, in one in the third, and in one in the first stage. A table is given in which are the names of the patients, the stage of the disease on admission, the number and extent of the bleedings and cuppings, the number of blisters, the seat of the disease, the complications, and the date of recovery, with the view of showing that M. Bouillard's method of *jugulating* pneumonia, although unique, is not uniform, and that the quantity of blood he takes in a given time is determined by the severity of the inflammation, and by the age, constitution, and temperament of the patient. The conditions of the disease and of the patient being given, we may, however, determine approximately, according to his views, the amount of blood to be abstracted.

It has been often stated that M. Bouillaud's success depended on the fact of his patients being adults, and on the mildness of the majority of his cases; but in the table to which we have referred, one of the patients was seventy-three years of age; and, although the inflammation was very intense, and occupied the summit of the lung, it lasted only four days; and further, we have already shown that in many of these cases the disease was far from mild. The success of his treatment seems illustrated by the fact, that the duration of the disease in eight of these cases treated by his method, was, on an average, only six-and-a-half days, the period of treatment being less than four days, while in the two others it was six and twelve weeks. We need hardly remind our readers that the peculiarity of Bouillaud's treatment consists in the repetition of blood-lettings. In one of the cases recorded in the table to which we have referred, and in which the patient entered the hospital on the third day of the disease, the pneumonia being double, four venesections to the extent of eighty ounces were practised, there was a cupping to sixteen ounces, and two blisters were employed.

Pleuritis.—During the same period six cases of inflammation of the pleura were admitted; and in this affection, according to Bouillaud, his system of blood-letting is equally valuable. Certain complications may, however, render it necessary to modify the treatment.

Bronchitis is one of the most common complications of pleurisies and pneumonias, and as it adds in some degree to their severity, it becomes a question, how far the ordinary treatment of those diseases requires any modification. Bouillaud takes some unnecessary trouble to show that there is nothing *specific* in affections of the mucous membranes, and that bronchitis, being an inflammation arising from cold, like pneumonia and pleurisy, must be combated in a like manner.

Bilious pneumonia and pleurisy are common, but the green expectoration, regarded by some authors as characteristic of these affections, is often absent.

These bilious pneumonias and pleurisies are due to the extension of the inflammation to the peritoneal investment of the sub-umbilical region, and not, as Stoll and others have maintained, to any peculiar state of the *primæ viæ*, and their contents.

In all the patients thus affected (being four in number) the following symptoms were more or less prominent; a bitter taste in the mouth, the tongue covered with a whitish-yellow fur, hiccup, singultus, bilious or mucous vomitings, a more

or less jaundiced appearance of the skin and conjunctivæ, greenish urine, gelatiniform expectoration: the blood-clot of a yellowish-green tint, especially in its upper layer, and perhaps the character of inflammatory blood while the serosity communicated a yellow tint to linen immersed in it.

[The reporter gives a case of bilious pleuro-pneumonia in the second stage, occurring in a man, aged 20 years, who was admitted on the 6th of May. We shall give the amount of blood extracted; the remaining treatment being very secondary. We may observe that on the day of his admission and the previous morning, there was considerable epistaxis.

May 6th.—Bled to 16 ozs. in the morning, and 12 oz. in the evening.

May 7th.—Bled to 12 oz. in the morning, cupped to 12 oz. in the afternoon, and again bled to 12 oz. in the evening.

May 8th.—Ordered to be bled to 12 oz., but only half that quantity was taken.

May 9th.—No venesection performed, and as we find that, on the 10th, "Il se trouve très bien" we may conclude that he suffered no material injury from having accidentally preserved six ounces of blood on the 8th. As we read that the convalescence was prompt, and that he had no relapse, we have no right to deny "that this case shows the efficacy of properly arranged (*convenablement formulées*) venesection in bilious pneumonias and pleurisies." Still, we cannot help expressing our conviction that a less heroic treatment might have been followed with at least equally good results.]

Amongst other complications, we may mention the frequent coincidence of pleuro-pericarditis with pneumonia and pleurisy of the left side. In these cases the sounds of the heart should be daily attended to. The treatment is the same as in the preceding complication.

The reporter lays great stress on the cures of pleurisy being more rapid and complete when treated according to M. Bouillaud's method, than when milder means are adopted.

Another complication of pneumonias and pleurisies, depending on their position, is delirium. This delirium occurs in the ataxic variety, and is observed to correspond with inflammation of the summit of the lung. And here M. Bouillaud is equally energetic regarding the superiority of the system of blood-letting over the ordinary administration of antispasmodics, &c.

There is a typhoid form of pneumonia in which we have two morbid processes going on simultaneously, namely, inflammation of the lungs, and entero-mesenteritis; and here, according to M. Bouillaud, his system of blood-letting is equally efficacious as in the preceding forms, provided the intestinal glands have not reached the stage of ulceration. "Here," says the reporter, "as in all the other cases this system presents a double advantage; dissipating the entero-mesenteritis as it dissipates the pneumonia and pleurisy, it does not require us to neglect one organopathic condition at the expense of another, and enables us to dispense with the employment of purgatives and entero-cathartics, which always give rise to a congestion of the portal system, and consequently increase mechanically the vital congestion of the intestinal follicles. Now, if experience has shown that, under the influence of purgatives and emetics, the affection termed typhoid fever, or entero-mesenteritis, is neither materially modified in its progress, nor abridged in its duration, and that it is impossible to give a certain prognosis; observation has also proved the very opposite in reference to the new system of blood-letting in well-marked cases of entero-mesenteritis during its first period."

Typhoid or true adynamic pneumonia, is most common in aged persons. The local phenomena of inflammation of the lungs and pleura are primary; the characters of the typhoid or adynamic state being generally secondary, and neither connected with inflammation of the intestinal follicles, nor with any of the other general or local conditions which give rise to that condition, excepting the alterations induced by the pneumonia or pleurisy.

In pneumonia of the third degree, the most prominent typhoid or adynamic symptoms are the expression of depression and stupor, prostration of muscular power, dryness of the lips, tongue, and teeth, which are covered with sordes, the dry and dusty condition of the nostrils, insensibility to the calls of nature, bed sores, &c.; indeed, these symptoms may be regarded as indicative that the suppurative stage of pneumonia has commenced. To take blood in this case, even M. Bouillaud grants, might prejudice the patient, and bring his favourite remedy into disrepute; he observes, however, that a blood-letting is sometimes necessary to fulfil certain general indications.

In ordinary cases of pneumonia in old people, Bouillaud applies his *new formula* just as in earlier life, the cases being excessively rare in which the organism is so deteriorated as to render it necessary to limit the number and amount of the venesections. In general, his system of blood-

letting is well-borne by old people, and when carried to the extent demanded by the intensity of the disease, the inflammation is as amenable to treatment as in earlier life.—*L'Union Med.*, 1848.

260.—*On the Diagnosis and Treatment of Calculus in the Kidney.*—M. RAYER, in a memoir on *Pyelitis Calculosa*, enters very fully into this subject. The following considerations may aid us in the diagnosis of this affection :—

1. Lumbar pain (one of the symptoms) occurs in various species of acute nephritis, in hydatids of the kidney, in nephritic colic, in retention of urine without inflammation, in lumbago, in certain diseases of the spine, in psoitis, in aneurism of the aorta, in pregnancy, in certain uterine affections, in certain cases of partial peritonitis, and in inflammation of the cellular tissue outside the peritoneum.

2. In nephritis the pain is often very similar, although usually less acute. We may be guided in our diagnosis by observing whether there is purulent matter in the urine, and whether there is any tumour in the lumbar region.

3. Calculus in the kidney is distinguished from nephritic colic by the fact, that in the first the pain is more acute and more intolerable, and that it ceases the moment the calculus has escaped from the ureter.

4. When there is retention of urine, either complete or incomplete, it is not uncommon to hear patients complain of pain in one or both lumbar regions, the pain being so severe as to induce the belief in the existence of pyelitis or calculus; and yet, after death, no appearance of inflammation will be seen, the kidneys in these cases being apparently healthy, with the exception of slight atrophy of the cones, and pale rather than red. In this case death occurs suddenly from cerebral disturbance.

5. In lumbago the pain commonly affects both sides at once, and generally with the same degree of severity, and is always increased by moving the body ; there is generally no fever, and it is often preceded by other muscular pains ; in the case of a calculus, is almost always on one side alone; and, although it is augmented by contraction of the lumbar muscles, the augmentation is not to be compared to that occurring on contracting the muscles in lumbago. There is seldom much difficulty in distinguishing between pain in the lumbar region and in the kidney.

6. In caries of the lumbar vertebræ the pain is dull and usually much less intense than in the case of a calculus in the kidney. The caries is also distinguished by the alteration in the form of the vertebral column, and often by abscess pointing towards the groin or the nates, and frequently by more or less paraplegia, either with or without muco-purulent matter in the urine. Paraplegia, again, often induces retention of urine, which produces chronic inflammation of the bladder, and sometimes of the ureters, and of the pelvis of the kidney.

7. In psoitis the patient feels a dull pain in the side affected; the parts become afterwards more acute, extending from the lumbar vertebræ to the pubis, and the body being bent forwards and towards the diseased side. The movements of the thigh are very painful, and it is almost impossible to straighten the back when the body is once bent. The inguinal glands then become enlarged, and a collection of pus is formed under the peritoneum and the body of the muscle, often causing swelling of the limb.

8. Aneurisms of the aorta occasionally produce lumbar pains similar to those in the kidneys.

9. Certain diseases of the ovaries and partial peritonitis of the lumbar region, may simulate renal disease, and especially the affection we are now considering, particularly if they co-exist with acute or chronic cystitis.

10. The same remark applies to inflammation of the extra-peritoneal cellular tissue in the vicinity of the kidney.

The mere presence of pus in the urine does not afford much aid in the diagnosis of this affection. The following points are, however, deserving of attention. When there is neither pain nor swelling in the region of the kidney, the examination of the urine will enable us to distinguish between pyelitis and cystitis ; when there is inflammation of the pelvis and calyces, there is dysuria with a deposit of pus ; when there is catarrh of the bladder, the urine is glairy and viscous. The glairy character of the urine may, however, occur in renal pus when alkaline urine is secreted ; and, on the other hand, the pus in cystitis is not always glairy. We have no right to assume that pus comes from a kidney containing a calculus, unless pain has existed in the upper region of the kidney.

The distinctive characters of renal tumours are then noticed by our author. The tumours with which renal abscess may be confounded, are those from enlargement of the spleen, liver, or gall-bladder ; those from cancer and other diseases of the kid-

neys, extra-renal abscess, abscess from caries of the vertebræ, fæcal abscess, &c. We cannot follow him in the diagnosis of these tumours, and proceed to notice the treatment of calculus in the kidney.

At the beginning of the attack, and in its first stage, the nephritic pains are relieved by warm baths and mucilaginous drinks, linseed tea, emulsions, small beer, and laudanum, &c.; by leeches, or, better, by cupping glasses applied to the painful part.

When the pain is very acute, and accompanied with suppression of urine, violent efforts at vomiting, and a tendency to syncope, relief is afforded by warm fomentation of assafœtida or henbane leaves; friction with the tinctures of opium and camphor, and the inhalation of ether, are serviceable. The expulsion of the calculus from the ureter is sometimes favoured by cold, the patient being stripped and his feet placed on the pavement. The expulsion is also favoured by the application of dry cups to the course of the ureter, or on the perineum.

When the primary symptoms have yielded, if the calculus be not expelled, and the urine is charged with mucus, we must explore the bladder, and if a small calculus be found, it must be extracted or broken, or its expulsion should be promoted by causing the patient to drink large quantities of spring or mineral water.

When gravel or calculi remain fixed in the calyces, &c., the inflammatory symptoms thus induced may be relieved by the warm bath, linseed tea, mineral water, or cupping.

Patients should abstain from sexual intercourse.

With the view of diminishing the mucopurulent secretion which occurs in these cases, oil of turpentine has been found useful. Rayer speaks favourably of cubebs, copaiva, purified turpentine, &c., in diminishing the secretion, and checking the frequent exacerbation of renal pain. Linseed tea and infusion of aniseed, constitute the best drinks.

Another indication is the physico-chemical treatment of granular calculi. Certain drinks, which may be taken in large quantity, such as spring water, act mechanically in washing the calculi, carrying the smaller gravel through the ureters, and facilitating their escape by increasing the amount of urine. The action of these drinks is confined to so narrow a space, that comparatively little can be expected from them. Neither can chemical action do much. Alkaline drinks are certainly favourable when there are uric acid calculi, and in pyelitis produced by concretions; but experience shows us that in gravel (a condition in which this form of calculus most commonly occurs) the uric acid deposit, although temporarily removed by this means, soon recurs.

When we obtain chemical indications that the granular calculi are composed externally of phosphates, we advise the use of carbonic acid drinks; but it is certain that these seldom render phosphatic urine clear and transparent. Alkaline turbid urine is almost always the result of chronic inflammation of the kidneys; and we cannot expect to modify it by either vegetable or mineral acids. The treatment recommended for chronic nephritis ought to be adopted.

When the calculus is so impacted as to give rise to an accumulation of urine and pus in the cavity of the kidney, Rayer advises that we should attempt to prevent the establishment of acute inflammation in the part, by rest, by the daily use of the bath, by leeches, by topical emollients, and by well-regulated diet, prescribing venesection when symptoms of inflammation show themselves.

If, however, the tumour is habitually painful, notwithstanding the above treatment, if there is continual or hectic fever, if there is diarrhœa, &c., and if none of the pus find its way down the ureter, the operation of nephrotomy, with all its dangers and difficulties, must be resorted to.

[Three modes of performing nephrotomy are described by Rayer, who concludes his memoir by the following warning.]

We must not attempt the operation—

1. When we are sure that both kidneys are affected, and probably contain calculi, provided there are no extra renal abscesses, which should always be opened without delay.

2. When the pus passes freely into the bladder, when there is no renal tumour, nor immediate fear of renal fistula, and especially when a favourable condition of the system leads to the belief that the other kidney is acting with increased energy.

3. When there exist, at the same time, uncurable lesions of the bladder, prostate, or intestines.—*Condensed from Dr Bryan's Translation in the Phil. Med. Examiner*, Oct. and Nov. 1848.

261.—*On Melæna in Children.* By M. Rilliet.—M. Rilliet, one of the authors of the classical work on the "Diseases of

Children," takes the occasion of two cases of intestinal hemorrhage in children which have come under his notice, to furnish a summary of what is known upon the subject. The cases he relates are unique, inasmuch as they are examples of this rare disease occurring in twins. The first child, though not large, was well formed, and had cried strongly after birth. The meconium had been discharged by castor oil; the child had sucked, and seemed in all respects doing well, when, several hours after birth, it passed two or three stools wholly composed of blood, and became deadly pale and cold, and was unable to swallow. It cried, but there was no vomiting or convulsion. Cold compresses were applied to the abdomen, the warmth of the extremities being maintained; rhatany was employed both in injections and external applications, but the former being always returned with blood, the latter were alone continued. The child gradually rallied after six bloody stools had been passed. While this child yet continued in an alarming state, the other twin was seized with vomiting and purging of blood, and decoction of rhatany was in the same way applied to its belly. It recovered, though the bleeding continued more obstinate. Both children remained well, though long continuing exceedingly pale.

Different authors have ascribed the affection to various causes, but an analysis of the published cases leads Dr Rilliet to doubt the efficacy of most of those assigned, *e.g.* the condition of the health of the parents, the nature of the labour, the too early division of the funis, the weakness or plethoric state of the child, the presence of irritating matters in the intestines, external violence, or the rupture of vessels; and although the affection usually occurs at from the first to the fourth day, it has been met with as late as the sixth, eleventh, or twentieth,—boys seeming more liable to it than girls. Dr Rahn-Escher, of Zurich, believes that much depends upon hereditary influence, a diseased state of the digestive organs being communicated from parent to child. This view would seem to be best supported in those cases where the parents also suffer from hemorrhages, or where several of their children do so simultaneously or successively. Billard states that the majority of fifteen children dying from it were remarkable for plethora, but the experience of others does not bear out this view. Numerous pathological observers agree in stating that there is no important vascular lesion, the mucous membrane being sometimes not more injected than natural; others have found the abdominal veins gorged with blood, and the mucous membrane softened and reddened. The naturally injected state of the intestinal tube in the child may act as a predisposing cause when there is atony of its vessels, or obstruction to the abdominal circulation. The difficulty with which respiration is established at birth, especially if the lung is incompletely dilated, may exert an influence.

The bleeding in most cases has followed the meconium, but unpreceded by any premonitory symptom. It is usually abundant and frequent, rich in colour, and either fluid, or in part coagulated. Hæmatemesis, though more rare, may yet be abundant; and Etlinger gives a case in which a pound of blood was discharged by vomiting and stool. Sometimes the hæmatemesis is more abundant than the intestinal hemorrhage, but it is always accompanied by the latter. The hemorrhage may attain its maximum in twenty-four hours; but it may be prolonged to the third or fifth day, and in very rare cases even to the tenth.

Of twenty-three cases in which the issues have been recorded, twelve recovered and eleven died. In nine of the twelve recovery seemed complete, but in three the constitution was deteriorated. In treating the disease, sometimes mere demulcents, at others astringents, the mineral acids and the internal use of cold, and in others applications to the belly and enemata, have been tried in different cases. M. Rilliet believes that the best treatment consists in the free exposure of the child to the air, the keeping its extremities warm at the same time, the application of astringents to the abdomen, and the careful administration of nourishment, or, if the child's condition requires it, of stimuli.—*Gazette Médicale*, 1848, No. 53. and *Med.-Chir. Rev.*, July 1849.

262.—*Swallowing an Iron Fork without Fatal Consequences.*—M. VELPEAU detailed to the Académie de Médecine, and authenticated the particulars, of an extraordinary case which occurred in the practice of M. Chemin. This surgeon was called, May 15, 1847, to a countryman, æt. 32, who, finding some difficulty in swallowing a bone, endeavoured to assist its passage by means of an iron fork, 10 inches in length by $1\frac{1}{4}$ in breadth; but this bringing on vomiting, he let go the fork, and it at once slipped into the stomach. At first he suffered little pain; but after a while this became intolerable, especially on taking a little food or drink; occasionally, too, he vomited abundance of watery fluid. The fork lay at first along the great

curvature of the stomach, with its prongs turned towards the left side, and after a fortnight approached the pylorus, where it remained nearly four months, during all which time vomiting of black matters occurred several times a day, the mouth being continually filled with a watery fluid. His suffering was intense; the pulse was normal, tongue moist, appetite gone, attempts at ingestion insupportable. At last the foreign body passed the pylorus, and in six weeks had traversed the small intestine, to become lodged for thirteen months in the right flank, opposite the ileo-cæcal valve. During the passage there was great occasional pain, especially on any movement, however slight. After remaining at the right iliac region for five months, the fork began to be dissolved. The patient now suffered from violent colic, constipation, distension of the belly, and difficulty in passing urine, black and brick-coloured matters being occasionally voided by stool. Next followed another eight months of alternating constipation and diarrhœa, some diminution of the pain, an enormous and incessant appetite being also observed; and gradually the patient resumed his laborious occupations. On the 10th December, 1848, the patient was seized with a most violent colic and constipation, both of which were at last relieved by repeated doses of castor-oil, a large quantity of fæces being passed; after which he felt quite well, and believed himself cured. However, on the 8th February, 1849 (twenty months after swallowing the fork), violent pain and expulsive efforts produced bloody stools, in the midst of which he found a considerable portion of the fork. Since then he has continued quite well.—*Gazette des Hôpitaux*, 1849, No. 66, and *Med.-Chir. Rev.*, July 1849.

[The solution of the fork might have been promoted by acid drinks.]

III.—PRACTICE OF SURGERY.

263.—*Femoral Aneurism—Rupture of the Sac—Death.*—An interesting case of femoral aneurism occurred in the Royal Military Hospital, Phœnix Park, Dublin. The patient, aged thirty-four, a sergeant, remarkable for his good conduct, of five feet ten inches in height, muscular and finely formed, was, to all appearance, in perfect health up to the month of March 1848, when one day, being engaged in the extension motions, he felt, at the instant of attempting to touch the ground without bending his knees, a sudden pain in the left groin, as if something had given way. In April he was sent to England on the recruiting service, and he commenced and continued to perform the arduous duties of that service till the latter end of November. While in England, however, he afterwards stated, the swollen condition of the left leg became persistent, and he discovered that he had a lump about the size of a hen's leg in the left groin. In November he asked permission to return to his regiment; and on the 22d of December, he sought, for the first time, medical advice. He was now examined by the surgeon of the regiment, who ascertained that the lump in the upper part of the thigh was an aneurism, forming a large, pale, flattish tumour. The patient was sent by easy stages to the Royal Military Hospital in the Phœnix Park, where he arrived on the 20th of January, and was placed under the care of Dr Fox, staff-surgeon.

When Dr Fox examined this soldier, who had been in active duty, and without complaint on his part of illness, up to the 22d of the preceding month, he saw the upper part of the thigh occupied by what seemed to be an enormous fungus hæmatodes, encroaching on the abdomen. The tumour was of a nearly conical form, the base being one foot eleven inches in circumference, and the elevation not less than five inches. It pulsated under the hand, and yielded to the ear a single bruit. The surface was abraded, ecchymosed, and discoloured. The thigh below the tumour was of enormous size; the leg œdematose. A consultation of some of the chief surgeons in Dublin was summoned; Sir Philip Crampton, Mr Cusack, and Mr Adams assisted Staff-Surgeons Fox and Barrett. Every possible mode of treatment was discussed; for it was pitiable to see a fine, intelligent young fellow, with courage to suffer and firmness to endure, and to be forced to leave him to his irremediable fate.

It was doubtful whether the external iliac could be reached, so much did the base of the tumour overlap the abdomen; but, admitting that a ligature could be passed round it, what good result could be hoped for? The œdema of the leg, as well as the size of the tumour, rendered it more than probable that the femoral or saphena veins, if not both, had become obliterated, and thus, if it should happen that the artery was sound, and that the patient es-

caped suppuration of the sac, still gangrene of the limb might be ultimately expected. It was found possible, in this case, to compress the aorta, and thus control the circulation in the extremities. Under such circumstances would it be warrantable to perform the old operation for aneurism—to open the sac, empty it of its contents, and pass ligatures round the artery immediately above and below it? This was certainly practicable; but it was more likely that the artery should be diseased in the immediate vicinity of the sac; and this operation would not preclude the ultimate supervention of gangrene. A third possible mode of proceeding was the combination of either of the former operations, with a subsequent amputation at the hip joint, which would obviate the occurrence of either gangrene of the limb, or suppuration of the aneurismal sac; but the statistics of this amputation are too unfavourable to encourage its being tried under such circumstances. Any of these operations might involve death *in isto opere;* and it was at length decided to let the disease proceed without surgical interference. Sir Philip Crampton had known two instances in which aneurisms of equal magnitude had undergone spontaneous cure; the pressure of the sac having caused inflammation and obliteration of the artery. Similar cases have been described by the older authors; and it was resolved, in the present instance, to watch the case closely, but to give to nature the chance of herself effecting a cure.

The aneurism rapidly enlarged during the few days succeeding; and on the 25th it ruptured, the blood spouting to a distance of at least three feet. Drs Fox and Barrett, who had been in constant and assiduous attendance, immediately rushed to the man's aid. The latter at once compressed the aorta in the abdomen, and arrested the hemorrhage; the former opened the sac, turned out the coagula, and tied the artery just above its entrance into it. It was found that this completely controlled the circulation. The other means proper for the occasion were had recourse to. Wine was abundantly given; but the shock was too severe; the man slept for about four hours, then awoke with a sensation of faintness, and gradually sank in six hours afterwards; he died on the morning of the 26th.

At the autopsy, the anticipated appearances were discovered. The arterial system was natural, except at the seat of the aneurism. The aneurism was found to be double, one sac occupying the large tumour which had burst, and communicating with another, which extended down the thigh under the fascia lata. The femoral vein was obliterated along a considerable part of its course. It was plain that surgery had no resources to meet a disease so complicated and appalling; but the case although terrible, is not the less instructive.—*Medical Times*, March 3, 1849.

[In the discussion which followed the communication, different opinions were expressed as to the mode of treatment which ought to be adopted in similar cases. Considering the facility with which in this case pressure upon the aorta was found to command the circulation, and the general healthy appearance of the patient, we think that there would have been a greater prospect of success had the operation of opening the sac and securing both ends of the vessel been performed without any delay, instead of waiting till it opened spontaneously. The hemorrhage, which seems to have been the immediate cause of death, would thus have been prevented.]

264.—*Retention of Urine from Stricture relieved by Puncture of the Bladder, and subsequent Incision through the Perineum.* By Mr BENJAMIN TRAVERS, jun.—Mr B. Travers related the case of a young man to whom he was summoned for the purpose of giving the bladder some immediate relief. No water had passed, otherwise than by drops, for some days, and the patient was sinking rapidly, from the local distress and bodily exhaustion so produced. The case occurred at St Thomas's Hospital, London, in the winter of 1843, Mr Travers being at that time resident assistant-surgeon. The author thus describes the operation which he performed on that occasion, and its immediate result:—"The patient having been drawn to the foot of his bed, and his chest raised with pillows, I incised the skin in the median line, immediately above the pubic symphysis. I then pushed a straight dropsy trochar and canula into and through the anterior wall of the bladder. On withdrawing the trochar, the first jet of urine went half across the ward floor. The relief was very decisive, but so sudden as nearly to induce fatal collapse." The patient was presently restored by a large dram of gin. At first, the canula was tied into the bladder by tapes, and stoppered. After some days, it was removed, as it no longer hindered the drainage of water by its sides, when the bladder filled. An elastic tube was next introduced, and other plans devised for controlling the constant leakage of the organ, without much success. In about a month, the wound had undergone

a contraction,and was fistulous, and as the progress of the case was slow and unsatisfactory, as regarded the stricture, Mr Green, one of the surgeons of the hospital, now cut down upon the diseased part in perinæo, and succeeded in pushing a catheter into the bladder. After this second operation, nothing of importance occurred to retard the recovery and final convalescence of the patient, who left the hospital, well, in the summer of the same year, 1843. His wounds all healed soundly, and there needed only the careful introduction of a metallic instrument at intervals, to avert the danger of relapse. The author was of opinion that the first operation rescued the patient from impending dissolution, he being at the time cold and insensible, with a thready, irregular pulse. Any proceeding followed by loss of blood must have proved instantaneously fatal, and a case was mentioned where the patient died under such circumstances, before the bladder could be relieved by incising the perinæum. Puncture of the bladder was advocated by Ponteau and Thirand, in 1760; and in later times by Hey, Home, and Abernethy, who all practised the operation with good success. There are many living practitioners who think well of it. The author quoted the evidence of Mr Cock, of Guy's Hospital, in its favour. That gentleman considers that one object thus attained is the providing an interval of repose (by diversion of the stream of urine) for the diseased urethra, during which irritation or other diseased action has so far subsided, that the patient has been known to recover perfectly without any more serious interference on the part of the surgeon. The circumstances of the case must always determine the site of the operation; but where it is admissible, and the relief required is only of a temporary kind, the puncture per anum is preferred. This method was adopted in a case published in the *Philosophical Transactions* for the year 1776, which proves that the canula may be withdrawn immediately after the evacuation of the bladder with perfect impunity, and without risk of dangerous extravasation; on that occasion the patient perfectly recovered. The author did not insist upon the universal adoption of puncture in preference to the practice of perinæal incision, whereby the stricture is overcome at the same time that the bladder is relieved, but the latter operation has often been attempted when the patient's condition was not such as to warrant its performance. When there is great exhaustion of vital power, or where the local distress is very urgent, puncture is usually a safer, and therefore a better, mode of proceeding. The author protested against the hazardous and very unscientific practice of forcing an instrument through the substance of an enlarged prostate, where it constitutes an insurmountable barrier to the onward progress of a catheter.—*Dublin Medical Press*, April 11, 1849.

[What are the bad effects actually found to result from perforation of the prostate in such cases? Why is it more unsuccessful than puncture of the bladder?]

265.—*Femoral Hernia — Rupture of the intestine during the application of the Taxis.* By Mr Nathaniel Ward.—A washerwoman, æt. fifty-two, came under his care in the London Hospital, on March 8, with a left femoral hernia, which had been down two days. According to her account, attempts at reduction had been made on the day following its descent, and persisted in for about half an hour, and also on the subsequent day for about a quarter of an hour. The operation was performed almost immediately after her admission, without any attempt at the taxis having been made. The hernia was reduced without the sack having been opened, and the only point of interest during the steps of the operation, was the existence of about an ounce of opalescent fluid between the sac and its immediate investment, the former presenting a polished smooth surface, and, from being extensively congested, resembling the appearance of the gut itself. A dose of opium was given on the night of the operation, and the bowels acted in fifty-two hours, an injection and some small doses of saline aperient medicine having been administered several hours before. She progressed favourably till the afternoon of the third day, when intermittent pulse, clammy skin, and general prostration of the powers, brought on a fatal termination in the evening. In the post-mortem examination there existed no appreciable evidence of peritoneal inflammation; the sac of the hernia had not been in any way interfered with; and the fold of intestine which had been protruded lay near the mouth of the femoral canal. A whitish indented band passing round its neck, pointed out the tightness of the stricture, and was more obvious internally than elsewhere. Running along the middle of the convex border of the gut, in a line with the long axis, existed a rent of the serous coat about an inch long, and in the middle of the rent the mucous and

muscular tunics had become perforated by a rounded aperture, about one-fifth of an inch in diameter, extravasation of the contents of the intestine having taken place into the peritoneal cavity.

That the rupture of the peritoneal coat had taken place during the attempts made at reduction, was evident from its extent, compared with the perforated opening of the mucous and muscular tunics, which had not given way till the third day after the operation, the patient having progressed favourably till that period.

The effusion of fluid between the sac and its immediate investment was also, in all probability, the result of the previous manipulation. The case suggested, in a forcible manner, the propriety of a guarded and cautious application of the taxis in cases of femoral hernia, and as far as it was individually concerned, militated against the operation without opening the sac.—*Med. Gaz.*, 13th April 1849.

266.—*Remarkable Disease of the Scrotum.* By Mr CANTON.—A gentleman, aged forty-five, who had always resided in a warm climate, was for several years afflicted with a swelling in the left side of the scrotum, and which had attained, by very gradual enlargement, the size of a small melon; producing no further inconvenience, however, than what arose from its bulk and weight. During its growth it had occasionally been struck by the pommel of a saddle. The tumour was oval, extending to the external abdominal ring, and the spermatic cord was obscurely to be felt behind; the testicle was nowhere to be distinguished; the surface uniform, and the scrotum natural and unadherent; freely handling the tumour produced no pain or uneasy sensation; no impulse was to be felt on coughing; the patient could not call to mind whether the swelling had commenced from above or below; translucency and fluctuation were absent; pressure made at the back, and towards the lower part of the tumour, elicited no pain. A small portion of the anterior surface was found, on careful examination, to be more yielding to the touch than the remaining part, and the sensations experienced were those of softness and elasticity. In consultation with Mr Hancock, it was agreed that the case was one of long-standing hydrocele, with the tunica vaginalis considerably thickened; and a trochar was consequently passed into the tunic through the fore-part of the tumour, at its least resisting part. There flowed at once through the canula, a thick, unctuous, brown fluid, which was found to coagulate by heat. The size of the tumour remained the same as before the operation. A few days afterwards, a considerable amount of lighter coloured fluid was drawn off, and at the next visit it was determined to lay open the sac, and endeavour to promote the formation of granulation by filling up its cavity with lint. An incision was accordingly made, extending from the upper to the lower part, through the cyst, the walls of which were nearly an inch in thickness; the testicle was now seen within, and situated lower down than in ordinary hydroceles, and appeared to be in every respect healthy. The patient suffered much from nausea, sickness, and constitutional irritation. At the expiration of a few days, these symptoms having abated, and the interior of the sac being found in a sloughy state, it was deemed advisable to remove, by the knife, the whole of the disease,—a fear being entertained that otherwise, from the indifferent state of the patient's health, the sloughing might extend, and in so doing, involve other parts; whilst the low organisation of the sac gave little encouragement to the hope of obliteration being effected by granulation, and, at the same time, the patient was urgent in his desire to be speedily free from disease. Under these circumstances, Mr Canton carefully dissected the cyst,—which was almost as consistent as cartilage,—from the fore-part of the spermatic cord, and from around the testicle, so as to leave the latter, which was perfectly healthy, unencumbered, and suspended by the former. No part of the scrotum was removed, and, at the close of the operation, the line of incision made in it was so shortened by corrugation, that the testicle could scarcely be returned to its place through the wound. Healing progressed favourably, and the patient has since remained perfectly free from any inconvenience.—*Med. Gaz.*, April 6, 1849.

267.—*Case of Congenital Glossocele, or Hypertrophied Tongue.*—Dr DELANY, of the United States navy, relates in the *American Journal of Medical Sciences*, the case of a young woman, aged twenty, a native of Kittery Point, Maine, who was born with her tongue protruding from her mouth, and from constantly growing, was a disgusting sight to the beholder. She is a finely formed, sprightly, and intelligent girl; has never had any disease save this of the tongue, and a scrofulous ulcer of the submaxillary gland, which discharged for some time, and then healed spontaneously. At the time the surgeon saw her for the purpose of relieving the deformity, the

tongue was protruding (from upper teeth to apex) a little over four inches, circumference seven inches, and thickness at middle of tongue two inches—indeed the tongue was of nearly the same thickness from root to apex. A deep linear fissure occupied the dorsum of the tongue in its whole length. The protruded portion was quite dark, owing to the number of vesicles filled with blood; and the part in the cavity of the mouth was also covered with these vesicles, and enlarged papillæ—but in a lesser degree. The substance of the tongue was extremely hard, and scarcely susceptible of pain; and was constantly pouring out a profuse, viscid, and offensive exudation. The tongue could not be retained in the mouth except for a moment, as it filled the whole cavity of the fauces, and prevented respiration. The inferior maxillary bone was natural in form, except at the symphysis, where the incisors and canine teeth were separated half an inch, and inclined outwards by the constant pressure and weight of the tongue. The lower teeth were covered with tartar, and rather loose in their sockets, and the lower lip everted on the chin. She had never been able to masticate with her tongue in the mouth, and consequently lived mostly upon fluids. She was subject to painful periodical swellings of the tongue, every six weeks or two months, during which time she would almost reach the point of starvation, from absolute impossibility to swallow any nourishment for a number of days. During these periodical turns (which had no connection with the menstrual discharge, the latter being always regular), profuse hemorrhage would sometimes take place from the organ, which at these times looked black. She could make herself understood, though her words were very thick, and given with a lisping utterance. An operation was decided on, and performed in the following manner:—The patient being seated in a chair, her head supported by one assistant, and hands secured by others. The tongue was drawn forcibly outwards and downwards by strong forceps; an incision was commenced with a bistoury on the left side, and carried to the median line a little inside of the upper incisors, then turned and cut outwards; thus with two strokes excising the part, which was of great density and hardness. A formidable jet of blood immediately issued from the dorsal and ranine arteries, which was of course preternaturally enlarged. An effort was made to control the hemorrhage by torsion, which failed, as the arteries were so impacted in the surrounding substance, that they could not be drawn out. Compression was quite as unsuccessful; dossils of lint, wetted with iced alum water, were no better, and the dorsal and ranine arteries were tied without trouble, and thus effectually stopped the hemorrhage. The patient all this time suffered so little pain, that the moment the arteries were secured, she jumped up and ran to the mirror, to see the effect of the operation. The ligatures were cut off close to the knot, hoping that in their course outwards the suppuration might tend to lessen the great thickness of the tongue. The flaps were now brought together (the coagula having been carefully removed with iced alum water), and secured with four interrupted sutures. When this was done, the tongue was of good shape, and no point of cut surface remained exposed. Length of tongue removed two inches and three-quarters. For nine hours after the operation, the tongue remained within the mouth; inflammation and swelling then set in and protruded it. The only dressing applied was a dossil of lint, wetted with ice water. There was no secondary hemorrhage. On the sixth day three of the sutures were removed, and on the twentieth, complete union had taken place by the first intention. The turn of periodical inflammation had come round by this time, and the tongue became slightly swollen, and the submaxillary gland of the left side very much so. The application of half a dozen leeches, with saline purging, quickly subdued this attack. The patient had been put upon the tincture of iodine, and it was continued with benefit. Five days after the operation, the patient, for the first time in her life, chewed with the tongue in her mouth. It is now kept within the teeth like any normal tongue; and protruded with slight difficulty. The exudation was very trifling—not sufficient to afford the slightest inconvenience, and altogether deprived of unpleasant odour. Ten days afterwards there was occasion to remove the lower incisor teeth, their horizontal projection having caused ulcers in the lower lip, which has now assumed its natural position, and completely closes the mouth.—*Med. Times*, Dec. 30, 1848.

268.—*Case of Diseased Larynx, in which Tracheotomy was three times performed, and a portion of Necrosed Ossified Cartilage was coughed up from the Bronchus, through the Artificial Opening.* By E. Humby, Esq., M.R.C.S.—T. H., aged 53, passed the greater part of his life at sea, or in the West Indies. In April 1845, having had syphilis two years previously, he took mercury to relieve secondary pains. In July, severe catarrh was accompanied by pains, sore throat, loss of

voice, and dyspnœa. Active antiphlogistic treatment proving unavailing in relieving the last symptom, tracheotomy was performed, and a silver tube worn for a month. This was then dispensed with for three weeks, but the recurrence of dyspnœa required its re-introduction. Mercury was then rubbed in; the patient was kept in a room supplied with a constant jet of steam, and iodine was given internally. In July 1846, the difficulty of breathing increasing, it was determined that the opening should be enlarged, and a wider tube introduced. This was effected with difficulty, by Mr Liston, in consequence of ossification of the rings of the trachea, which the bone forceps were required to divide. In October following, Mr Humby first saw the patient. He was then suffering from constant cough, mucopurulent expectoration, great constitutional excitement, with physical signs of mischief in the lungs. On November 14, Mr Liston cut out a second piece of ossified trachea; and, in a fit of coughing which followed, a large piece of necrosed ossified cartilage (apparently a part of the cricoid), was coughed up. The patient died six years after this operation.—*Autopsy.* The right pleural cavity contained three pints of turbrid serum, with lymph. The left lung was partially consolidated. The upper part of the larynx was nearly closed, the back of the cricoid cartilage was absent, the rings of the trachea were ossified; and in the left bronchus was a fragment of necrosed ossified cartilage. The principal points of interest in the case are, the great difficulty attending the operation, and the ejection of the dead bone from the bronchus.—*Royal Med. Chirur. Society,* June 26, 1849.

269.—*Successful Employment of Conium in a case of extensive Ulceration of the Perinæum.* By Mr LLOYD.—A man, æt. 22, presented a large venereal ulcer in the left perinæum. The surface of the sore was dull and livid; the discharge thin and watery, without the appearance of pus. Its edges were irregular, hard, and overhanging the surface. The ulcer had been situated in the perinæum for five months. Mercury, iodide of potassium, cauterization, &c., were tried without benefit.

The conium was begun on May 30, and continued without intermission, the dose being increased every four or seven days, until September 18th, when the sores were healed. During this period (112 days) the patient took fifty-seven ounces and two drachms of conium; the first and smallest dose being fifteen grains of the extract daily, while the largest was seven drachms daily, and which was continued for seven days.

The effects of the drug were sensations of fulness in the head, accompanied by giddiness and heaviness of the eyes, on account of which he often found it difficult to read. He said it used to make him feel as if he had been smoking a large quantity of tobacco. These sensations were most apparent when the dose was increased, and they invariably diminished as he got accustomed to the quantity taken, which was the case in four or five days. He never experienced any decided inconvenience from the medicine; it did not make his head ache, interfere with his appetite, disorder his intellect, nor did it make him sleepy. But while he was taking it he gained health and strength, and improved in general appearance. Slight relaxation of the bowels occasionally took place; this was always cured by chalk without opium, the hemlock being given at the same time. Simple ointment was the only dressing applied to the ulcer. That the extract was of good quality was shown by its exhibition to other patients, on whom it produced the usual effects of the drug.—*Med. Times,* Jan. 6, 1848.

[The employment of conium in obstinate venereal ulceration is not a new proposal, as may be seen by reference to the works of Hunter, Pearson, and Travers, who speak favourably of its internal administration in this disease. Since the publication of the above, Mr L. has obtained similar success with the conium in two more cases of obstinate venereal ulceration. It is true, as Dr Christison has observed, that the doses of the preparations of hemlock are not well determined, but the extract employed by Mr L. must certainly have been of very inferior quality.]

IV.—MATERIA MEDICA AND THERAPEUTICS.

270.—*On large Doses of Sub-Nitrate of Bismuth in Gastro-Intestinal Affections.* By M. MONNERET.—M. Monneret states that he has been for some years engaged in experimenting upon the medicinal qualities of this substance, and he finds that, given in far larger doses than are supposed to be permissible, it is of the greatest value in gastro-intestinal affections, especially those attended with fluxes.

Simple Diarrhœa.—It is especially in the diarrhœa of infants, resulting from

imperfect lactation, that he has found it so very useful, large doses curing such in a few days. So, too, after weaning, and the injudicious diet so often adopted, the bismuth, in doses of three tea-spoonfuls a-day, soon removes all symptoms of disordered digestion, especially the serous diarrhœa so often produced in these cases. Simple diarrhœa is of much rarer occurrence in the adult; still, examples are met with in which we cannot attribute it to either phlegmasia or ulceration of the intestines, as in the granular disease of the kidneys, in chlorotic women, in women become anemic from cancerous degeneration of the uterus, and in some cases of chronic disease of the heart, or in commencing phthisis. Those cases in which the diarrhœa is serous, and results from an atonic state of the gastro-intestinal membranes, best yield to this medicine. It should be given in gradually increasing quantities from two drachms to twelve or more daily.

Diarrhœa Symptomatic of Intestinal Lesion. — In spite of the presence of symptoms indicative of inflammatory action, the author has frequently administered the bismuth to children with great success. So, too, he has found it very useful in some subjects of phthisis suffering from obstinate colliquative diarrhœa, and even in the diarrhœa of typhoid fever, when the intestinal canal was certainly the seat of very numerous ulcerations. In this last case its utility is not very permanent; but it has the advantage of inducing the tolerance of articles of diet or medicine, which without it would be rejected.

Cholerine.—The frequency with which gastro-intestinal disturbance precedes true cholera is well known, and the desirability of its suppression is evident; and to this end large doses of bismuth succeed better than any other means. It is most suitable in the cases in which with the diarrhœa there are nausea, vomiting, gastralgia, collicky pains, borborygmi, and anorexia. The cases are innumerable in which the author has been enabled rapidly to relieve these symptoms, without any aid from opium, by giving eight or ten drachms daily. The only inconvenience resulting is a certain amount of constipation.

Gastralgia. — Various observers have already admitted the great utility of this substance, both in idiopathic gastralgia and in the forms dependent upon hysteria, hypochondriasis, chlorosis, &c. &c.; but it has frequently failed in the hands of others, by being given in doses of two or three scruples daily, in place of twelve or fifteen drachms; and it is taken with such ease, that the patients voluntarily continue its employment after the pain has ceased, until the gastro-intestinal functions are thoroughly re-established. The idiopathic forms of gastralgia, so often met with in sedentary or literary persons, and in those suffering from depressing emotions, or from abuse of alcohol or coffee, are those which are most successfully combated. It has often, too, enabled the stomach to bear those tonic aliments, whose slow and painful digestion, accompanisd by cephalalgia, drowsiness, and pain in the back and limbs, is so often observed in chloro-anemic patients. This medicine only produces a temporary relief in gastralgia, dependent upon organic disease of the stomach, except when this viscus secretes a large quantity of acid fluid.

Vomiting.—Vomiting may depend upon a simple gastric neurosis, and then the bismuth can be very usefully employed. It is also useful in the vomiting of pregnancy, and that accompanying dysmenorrhœa; but its efficacy is less certain than in affections of the gastro-intestinal tube, and is never so great as when diarrhœa, colic, and flatus are present. From whatever cause pain manifests itself during digestion, we may relieve it by mixing the sub-nitrate freely with the articles of food.

Administration and Action.—It should be given in powder, and best so with the first spoonful of broth or gruel. It excites no disgust, especially if placed between two bits of bread, soaked in broth. Children take it readily with milk or ptisans. The author has never given less than from two to three drachms daily, nor more than twenty, and he has never observed the slightest inconvenience from these large doses; and it is his custom to give it to the children in his hospital by spoonfuls or table spoonfuls, without observing more exactitude, so innocuous is it. So imperfectly is this fact known that the chemists hesitate in preparing his prescriptions in which these large doses are ordered. The author cannot conceive why this substance was ever set down as an irritant poison, as he has never found the slightest irritation from the largest doses given to either the healthy or the sick; and post-mortem examination proves that, beyond patches of black discoloration, it produces no effect on the mucous membrane, the consistence of this remaining quite normal. The action of the substance on the canal

seems to be quite negative—that is to say, the anormal symptoms for which it was prescribed quickly disappear. Great attention has failed also to detect any marked effect upon any other part of the system. Perhaps the urine is somewhat increased, and the pulse becomes slower; this is probably due to the relief of the gastro-intestinal affection. The action of bismuth is, then, purely a *local* one; and this local action, so far from being an irritant one, as so commonly stated, diminishes the activity of the phenomena of which the mucous membrane is the seat. —*Gaz. Méd.* Nos. 15, 16; and *Med. Chir. Rev.*, July 1849.

271.—*On Certain Impurities in Chloroform.* By MM. SOUBEIRAN and MIALHE. —Two liquids are sold in commerce under the name of chloroform, which, although of very different origin, have nevertheless been hitherto considered as identical, and substituted one for the other. However, they exhibit some remarkable differences in their properties; the one derived from the action of hypochlorite of lime upon alcohol possesses all the characters which have been assigned by one of us to chloroform, and which we shall therefore call *normal chloroform;* the other, obtained by the action of hypochlorite of lime upon pyroxylic spirit or methylic alcohol, differs so much from the first that we were induced to submit them to a careful comparative examination to ascertain the cause of this difference.

The chloroform from pyroxylic spirit, which we shall call for convenience *methylic chloroform*, although possessing the same physical appearances as the normal chloroform, has quite a different odour; it is not sweet and agreeable, but empyreumatic and nauseous. Its density is less than that of ordinary chloroform; the latter weighs 1·496, whilst the specific gravity of the former is only 1·413. We may observe that the density of chloroform, fixed by M. Liebig at 1·480, is too low; we have constantly obtained 1·496 at 54° for a perfectly pure chloroform. This difference undoubtedly arises from the presence of a foreign substance which had not been separated from the chloroform, as we shall presently show. Its boiling-point likewise appears to be lower; and, lastly, the inhalation of the methylic chloroform, far from being agreeable and pleasant, produces a general feeling of sickness, followed by a heaviness in the head, and sometimes by vomiting.

These differences led us to believe that they did not possess the same composition, or that the properties of one of them were masked by some foreign substance. On the first hypothesis, it might be imagined that the chloroform, which does not belong to the same chemical type as alcohol, and which is produced by the profound disturbance caused by the action of chloride of lime, might prove to be a different substance according as it resulted from the action upon alcohol which belongs to the ethylic series, or from the reaction on wood-spirit, which belongs to the methylic series. It might also happen that the difference was owing to a weaker or stronger condensation of the methyle, supposed to exist equally in the two chloroforms. To decide this, we undertook some analyses, the result of which will be given subsequently. The second hypothesis supposes the identity of the chloroform, whether it has been formed from alcohol or from pyroxylic spirit; the difference in this case would arise from the presence of a foreign substance. This opinion is better founded; in fact, on attempting to rectify methylic chloroform by successive distillations over chloride of calcium, we found that the salt forming the residue retained after each distillation a certain quantity of a peculiar oil, which was easily isolated by washing with water. By repeated rectification, we were able to obtain a considerable amount of this oil, the proportion of which rose to as much as 30 grms. in 500 in some commercial chloroforms.

This new substance is liquid and of an oily consistence. At first yellowish, it is rendered colourless by a simple rectification; it has a very peculiar and very strong empyreumatic odour, similar to that possessed by the methylic chloroform; it is lighter than water; it began to distil at 185°, but gradually rose to 271°. This rise of temperature during the distillation evidently indicates a mixture of different compounds. It readily took fire, and burnt with a very intensely smoky flame. The presence of chlorine among the products of its combustion, indicated that this body formed a constituent part.

Although rectified several times, the chloroform which had yielded this oil still retained the characteristic empyreumatic odour. We therefore sought for some chemical re-agent, which, without acting upon the chloroform itself, should either separate or destroy the oil it still contained. After some experiments, concentrated sulphuric acid appeared to us most suitable; it produced in the impure chloroform a brownish-red colour, which was the more intense the more oil was contained in the mixture. This colour, which

it likewise produces in a far higher degree with the isolated oil, is due to its carbonisation ; so that on distilling impure chloroform with a certain quantity of concentrated acid, we succeeded in obtaining a product which was no longer coloured by this powerful re-agent, and possessed no empyreumatic odour.

We were then able to analyse the chloroform thus purified, and to examine its properties compared with those of normal chloroform. Composition, boiling-point, density in the liquid state and in the state of vapour, were all found to be perfectly alike ; and we were able to assure ourselves that there exists but one chloroform, and that that derived from wood-spirit does not differ in the least from the chloroform from alcohol when the precaution has been taken to separate the whole of the oil above-mentioned. However, it must be stated that the complete separation of this oil was not effected ; there still remained a minute proportion, so small indeed as to have no influence either on the specific gravity or on the results of the analysis ; but it was evident, from the odour which remained after evaporating a sufficiently large quantity of chloroform; and likewise the vessel used to take the density of the vapour, still perceptibly retained the peculiar odour of this chlorinated methylic oil. It is almost impossible to remove the last traces of it ; they resist the action of concentrated sulphuric acid, even after long-continued contact.

There are, therefore, not two kinds of chloroform ; but the presence of a peculiar oil, produced in the action of chloride of lime upon pyroxylic spirit, is the cause of the differences which they present at first sight. Having established this fact, we now inquired whether during the preparation of chloroform from alcohol a substance analogous to that just described was not produced. Our suppositions were confirmed by experiment. The crude chloroform was first washed with water, then with carbonate of soda, left for a long time with chloride of calcium to remove the water ; and lastly, filtered and distilled in a glass retort in a water-bath. There remained in the retort an aromatic liquid, but of an odour different from that of chloroform ; but the amount was very small, being not 40 grms. from 20 kilogrammes of chloroform.

This oil differs essentially from that obtained from the chloroform prepared with pyroxylic spirit ; it is heavier than water, and has a peculiar acrid penetrating odour, totally different from that of the other. On attempting to determine its boiling-point, we found that, like the former, it consisted of a mixture of different compounds ; for the thermometer, which stood at 154° at the commencement of the ebullition, rose to 243°, and the temperature would undoubtedly have risen still higher had a larger amount been at our disposal. All these compounds contain chlorine, as was evident from an examination of the products of their combustion. Although these different substances were not submitted to analysis, everything leads us to believe that they are intermediate in composition between chloroform and one of the known chlorides of carbon.

It is scarcely possible to decide by what reaction these chlorinated oils are produced, no organic analysis having been made ; we may however observe, that in the preparation of chloroform from ordinary alcohol, the more chlorinated oil is formed the less chloride of lime is added to the mixture, or that the production of the substance is due to an excess of chlorine.

It results from what precedes, that the chloroform obtained from wood-spirit should not be employed for inhalation, it being impossible to deprive it entirely of its empyreumatic odour ; it might be used for liniments, after having been previously rectified over sulphuric acid and chloride of calcium ; but the necessity of these rectifications destroys the advantage which might arise from the substitution of pyroxylic spirit for alcohol.

The presence of the chlorinated oil, however small in quantity, even in the chloroform obtained from alcohol, has a very decided influence on the use of this substance. It is to it that must be most frequently attributed the sickness and vomitings caused by the inhalations of chloroform. It is therefore absolutely requisite to distil the chloroform, in order to separate the foreign substance which it contains ; and this distillation should be stopped shortly before the end of the operation, in order not to re-form the mixture. The oil contained in the residue then possesses in the highest degree the property of producing headache and giddiness; its action upon the system certainly requires that its physiological effects should be studied.

In conclusion, we may draw attention to a physical property of chloroform, which appears not to have been previously noticed ; it is its solidification by spontaneous evaporation. When chloroform is poured upon a double filter of bibulous paper, a great portion of the liquid, from its heaviness and fluidity, quickly passes through the paper ; whilst another portion, evaporating rapidly upon the mar-

gins of the filter, produces so much cold as to congeal it into white silky scales, which keep a few instants.—*Journ. de Pharm.*, July, and *Chem. Gaz.* Aug. 1849.

272.—*On Glairine and Glairidine.* By M. BONJEAN. — Glairine is a vegeto-animal matter, produced at the sulphureous spring of Aix, in Savoy. According to M. Duby, who has examined it microscopically, it consists of extremely minute fragments of a plant of an extraordinarily fine, close, undulating tissue, which is insoluble in water, and has the appearance of an animal remain.

Glairine is produced by the immediate action of the air on the sulphureous water, and is deposited on the pavement of the pumps. It retains a large quantity of water, which it does not lose by long exposure to the air; it is not entirely expelled below 104° Fahr. Thus dried, it is quite colourless, completely inodorous, of a horny appearance, and is reduced to about one-tenth of its weight; when water is added to it, it is rendered again mucilaginous, becomes nearly of its original size, but remains inodorous. When dried, and thrown upon burning charcoal, it gives the smell of burnt horn, without any traces of sulphurous acid; and the gases which it yields turn reddened litmus paper blue.

Glairine contains very little nitrogen, and no iodine; it dissolves sparingly in water, alcohol, oil of turpentine, and rather more readily in concentrated acids, from which the alkalis precipitate it in bluish-white flocculi; heat in all cases increases the solvent power of the liquids; it is quite insoluble in ether, which isolates perfectly the small quantity of sulphur which it retains interposed between its molecules; it becomes rapidly of a more or less blackish-grey colour when taken from the water and exposed to the air; but it is sufficient to treat it with nitric or hydrochloric acid, bromine or chlorine, to restore its natural whiteness; sulphuric acid, far from decolourising it, imparts to it the colour of wine-lees; the concentrated alkalis render it green when heated, and the alkalis destroy it; when in water it has but very little odour, but, as soon as taken from it, it acquires a most disgusting smell, which is not dissipated by long exposure to the air, at least while it retains a little water; nor is it got rid of by much washing with cold water, or by long boiling, although in the latter case the greater part of it disappears. Lastly, it becomes perfectly inodorous by thorough drying in a stove, assumes a horny appearance, and is reduced to about one-tenth of its weight.

The author observed that when the sulphureous waters above described become mixed with rain-water, another vegeto-animal matter appears, to which he has given the name of glairidine.

The principal characters of this substance are, that it is of a deep grey colour, instead of being colourless, like glairine; it is inodorous, and remains so even when exposed to the air. Long exposure to the air does not alter its colour; but, if a glass bottle be immediately filled with it, it soon acquires a smell, which in a few days becomes as disagreeable as that of glairine taken from water. If it then be taken from the bottle and exposed to the air, it becomes quite inodorous, and dries perfectly in a few days; on the contrary, it has been shown that glairine does not lose its interposed water till exposed to a heated stove. Glairidine is not decolourised either by an acid or by liquid chlorine. Like glairine, it renders hydrochloric acid yellow, on account of the peroxide of iron which it contains. Water, alcohol, oil of turpentine, and the acids, dissolve a small quantity of it; it is insoluble in ether; it separates sulphur, but in so minute traces that to perceive them it is requisite to operate on a great quantity of the matter. The caustic alkalis do not render it green, either cold or hot. If it be thrown on a filter, it retains a little water, and when afterwards dried on a stove, it loses only two-thirds of its weight. In this state, instead of having a horny appearance, like glairine, it presents a uniform, friable, solid mass, and does not swell in water. The water which runs through the filter is as inodorous as the substance itself, and it contains a very small quantity of zoïodine. When decomposed in a glass tube, it exhales the odour of burnt horn, and yields gases which strongly restore the blue colour of reddened litmus. Lastly, glairidine yielded by analysis very evident traces of iodine, which, as already stated, glairine did not.—*Jour. de Ph. et de Ch.; Phil. Mag.;* and *Pharm. Jour.*, August 1849.

[We have given the above extracts, as some French writers have ascribed to these bodies the medicinal virtues of the springs containing them.]

273.—*The Thermal Springs of Leukerbad.* By DR FORBES.—"The hot springs which give to Leukerbad all its celebrity are more than twenty in number, and all rise either in the village or its immediate vicinity. By far the most considerable in point of size, surpassing, indeed, all the others put together, is the Lorenzquelle, which issues as a fountain in the small

market-place. It is of the invariable temperature of 124° Fahr., and is the warmest. Another of the springs is 120°; another 115°; and some of the smaller ones in the vicinity of the village (no doubt cooled in their transit) are only 99° and 94°. They are perennial, and all of the same chemical composition. The water is colourless and tasteless, contains a moderate proportion of sulphate of lime, a little sulphate of magnesia, and traces of potass, soda, silica, and iron. In fact, but for its heat, it might be regarded as a good drinking water, only rather hard; and it is far from proved that, as a medium for baths, it possesses any advantages over common spring water.

"The following are the principal bathing establishments; the Old Bath; the Werra Bath; the Zurich Bath; the Bath of the Hotel des Alpes; the Poor Bath; and a grand new Bath now building. Altogether there are eighteen or twenty large public baths, varying in size from 8 feet by 11, to 18 by 30, and capable of containing each from 15 to 35 persons; there are also numerous smaller baths, capable of holding from four to six. They are all old-fashioned, without any ornament, extremely dingy, and, though not dirty, certainly dirty-looking; in a word, much as they were a hundred years since, and certainly not very inviting to a stranger. They are little more than three feet in depth, so that the bathers must seat themselves, which they generally do, when they wish to have the whole body covered by the water. All the baths are emptied and filled every day. The water is lowered in its temperature by the addition of cooled water, but as the taps are at the command of the bathers, the actual temperature employed varies considerably. In four different baths in which there were bathers, I found the temperature to be, respectively, 95°, 96°, 98°, 99°.

"In making use of the baths, the usual course followed is to go into the water at four or five o'clock in the morning, to remain in it from one or two to five hours, and to go into it a second time in the afternoon, and remain from one to three hours; making the daily stay in the bath from two to eight hours. The bathers undress and dress in heated rooms adjoining the baths, and always retire to a warm bed in their hotel, for half an hour or an hour, after bathing. They are clothed in very long dressing gowns of flannel or thick linen, reaching from the throat to the feet. Thus dressed, both sexes occupy the same bath. Each person is provided with a small floating table, with a small basket for holding the handkerchief, snuff, books, &c., also for eating off, playing on, &c. At the time of our visit, none of the baths contained more than ten or twelve persons; but we saw and heard enough to enable us to judge of the strange scene they must present when they are quite full; as it was, there seemed great sociality and mirth among the company.

"The ordinary period of a course of bathing, or *cure*, as it is called, is twenty-five days, and for this the patient pays a napoleon; a single bath costs a franc. Two or more seasons are often deemed requisite for a complete cure. The water is used internally as well as externally, sometimes in conjunction with the bath, or sometimes by itself. A course of this kind is only half as long as that of the bath, viz., about twelve or fifteen days, and consists of from two to ten glasses, taken in the morning, fasting, with an interval of ten or fifteen minutes between each two.

"The baths are employed for many chronic diseases, but their greatest reputation is in cutaneous diseases, scrofula, chronic rheumatism, and indolent gout. Of their great efficacy in many such cases, as well as in others of a different description, we have sufficient proof in actual experience; and this is a result that might be fairly expected from so powerful an agency as hot water, when applied in the manner it is applied here. Immersion in a fluid of a temperature approaching or exceeding that of the human blood, for a fourth or third part of every twenty-four hours, during the space of a month or two, *must* produce some important modification in the actual condition of the animal functions; and it would be strange if this modification were not sometimes beneficial as well as sometimes injurious. It could be easily shown, on physiological grounds, how this should be so; as it is known by actual experiment to be so.

"Employed in this manner, hot water, like cold water, as used by the hydropathists, is a very powerful agent both for good and ill; its application, therefore, requires great consideration and caution; but I am convinced that, with such consideration and caution, it, as well as the cold water-cure, may be, and is, productive of most excellent results. The mode of employing the ordinary cold and warm bath in England, that is, their very brief and occasional use, is unquestionably advantageous both in preserving and restoring health; but it is incapable of producing those great and permanent effects, which may be wrought by the prolonged, and, as it were, continuous use of water, whether hot or cold."—*Physician's Holiday, or a Month in Switzerland*, p. 306, *et seq.*

V.—DIETETICS, HYGIENE, AND MEDICAL POLICE.

274.—*On Chicory-Coffee, its History, Manufacture, Adulterations and Means of Detecting them.* By A. CHEVALIER.

History and Manufacture.—The manufacture of a factitious coffee from the roasted root of chicory appears to have been originated in Holland, where it has been practised for more than a century. It remained secret until 1801, when it was introduced into France by M. Orban of Liege, and M. Giraud of Horning, a short distance from Valenciennes.

In a memoir upon coffee by M. Payssé, some details are given on the preparation of chicory-coffee in Holland. These were printed by Parmentiar in the "Annales de Chimie" for 1806, and are as follows:—

"The chicory for this purpose is collected in spring; the roots are conveyed to the manufactory, stripped of their leaves, and washed to remove the soil. They are cut into six parts, and then divided and dried. When dry, they are roasted in great cylinders, like coffee. After the roasting, the chicory is reduced to a coarse powder.

"In Holland this chicory is then mixed in variable proportions with coffee; the resulting product is very bitter, which is considered by the common people to be a very salutary refreshment, which modifies the stimulant action of the coffee. Such a favourable idea has been formed of it, that of late this preparation has been employed alone, without any addition of coffee; and, nevertheless, it posseses no other virtue than that of colouring more or less readily the water in which it is boiled or infused, of communicating to the liquid the bitter taste of the extractive substances contained in chicory, and of being far less expensive than coffee."

M. Payssé adds, that "peas, lupins, beans, beet-root, carrot, &c., have been employed as a substitute for coffee."

The manufacture of chicory-coffee, however, remained for a long time stationary and of little importance; but for the last twenty years it has extended considerably, and has become an object of commerce of great importance. Till within the last few years, it was carried on principally near Valenciennes; but since then manufactories have sprung up in several localities, especially at Arras, Cambray, Lille, Paris, Senlis in Normandy, Brittany, and in England.

The cultivation of chicory, to obtain the root for the purpose of converting it into coffee, has become a source of great prosperity for these districts. The plant requires a deep soil of good quality, and well-prepared; the seed is sown in May, and the harvest takes place in October. Some time before collecting the roots, the leaves are mowed, and cows fed with them. The roots are dug up with a spade, placed in heaps, and covered with straw to preserve them from frost.

The roots thus collected are cut at first longitudinally, and then transversely, in pieces from 5 to 10 centimetres in size; they are then carried into the drying chambers, which are heated with a kind of anthracite which produces no smoke. The roots are placed in layers of about 40 centimetres; they are frequently stirred to prevent them from burning and to facilitate the drying. Four such operations are made in about twenty-four hours. The roots dried by the above process are known by the name of *Cossètes.* They are kept in granaries; but in general sold almost immediately to the manufacturers, who roast them according to the demand. When the roasting is nearly complete, 2 per cent. of butter is added, and a couple of turns given to the roasting machine. This addition is made in order to impart lustre to the chicory, and to give it the appearance of roasted coffee. The substance is then emptied into iron vessels, and after cooling is crushed in vertical stone mills or between iron cylinders; it is then sifted, and during this operation a small quantity of a reddish colouring substance (*rouge brun de Prusse*) is added to give it the colour of coffee. The product is then weighed off, and sold in packets under a variety of names, but very rarely under its own; for instance, among others, *Mocha powder, Ladies' coffee, cream of Mocha, Pectoral coffee, Chinese coffee, Tom Thumb coffee, Polka coffee, and Colonial coffee.*

We have stated that it forms a very important object of commerce; in fact 12,000,000 lbs. are consumed in France, and a large quantity is exported. On consulting the tables of the commerce of France, it will be seen that from 1827 to 1836 there was exported from France 458,971 kilogrammes of chicory-coffee of the value of 321,282 francs; and since this period the amount has vastly increased.

Adulteration.—This substance is very frequently mixed with other ingredients, the means for detecting which consequently vary. We shall briefly notice them.

I. Brick-dust, ochre, and earth may be detected by incineration and determining the amount of ash; pure chicory-coffee furnished from 4 to 5 per cent. of residue; an excess would indicate fraud.

II. Adulteration with coffee grounds. This is carried on upon a great scale in Paris. It is easily detected. A sample of the suspected chicory is dried in a water-bath, and a pinch thrown upon the surface of a glass of water; the chicory almost immediately absorbs the water and sinks to the bottom of the vessel, whilst the coffee grounds remain on the surface.

III. Adulteration with roasted bread, dirt, and remains from vermicelli, &c. This adulteration is generally made with crusts of bread collected in the streets—crusts which are not always very clean. They are roasted or rather burnt in the oven, ground and mixed with the chicory-powder. This adulteration can be detected by iodine water, as the product resulting from the decoction of pure chicory does not strike a blue colour.

IV. Adulteration with roasted acorns, which may be detected by iodine-water and by persulphate of iron, which in such a case strikes a black colour.

V. Adulteration with roasted corn, haricots, and peas, may be detected by means of iodine water.

There is no method as yet known of detecting the adulteration by roasted beet-root and carrot.—*Journ. de Pharm.*, July 1849, and *Chem. Gaz.*, Aug. 1, 1849.

275.—*Determination of the Richness of Milk.* By M. POGGIALE.—M. Poggiale has communicated to the Academy of Sciences of France two methods for determining rapidly the proportion of sugar of milk, and he regards this determination as furnishing an exact indication of the richness of the milk itself. Sugar of milk having the property, like grape sugar, of reducing the salts of copper, its quantity may be estimated by means of this reaction.

The testing liquor is prepared by adding bitartrate of potash to a solution of sulphate of copper; a precipitate forms, which is to be re-dissolved by caustic potash. The liquor, on being filtered, is limpid and intensely blue. The value of the testing solution is fixed by a careful determination of the quantity of sugar of milk required to decolorise a known volume of it.

In testing milk, 50 or 60 grammes (about an ounce and a-half), are to be coagulated by adding a few drops of acetic acid, and heating to 40° or 50° C. (100° to 120° Fahr.) The filtered whey is placed in a graduated dropping tube, each division of which is equal to one-fifth of a cubic centimetre (a twentieth of a cubic inch would be the best equivalent in English measure), and it is to be added drop by drop to 20 cubic centimetres (about 7 cubic inches) of the testing liquor contained in a small flask. This is to be constantly agitated and heated after each addition of the whey. When the blue tint has completely disappeared, the quantity of the whey which has been used is noted, and by a simple calculation the proportion of sugar of milk in any given bulk of milk is obtained.

M. Poggiale's second method consists in the employment of the polariscope. He gives a table for calculating the amount of sugar of milk in grammes, from the degrees of deviation observed.

According to his experiments, M. Poggiale states, that a kilogramme of milk contains about 52 grammes of sugar of milk, whilst in the milk of commerce the amount obtained is rarely more than from 38 to 46 grammes.—*Annales d'Hygiene Publique*, July 1849.

[The determination of the goodness of milk by a simple but precise test, is a matter of more consequence than appears from the slight attention which it has received in this country. It is of especial importance in the case of institutions for the reception of children, where milk forms a very essential part of the diet of the inmates. M. Poggiale's process for the determination of the amount of sugar of milk appears to be, *quoad hoc*, precise enough, and sufficiently easy of execution. But, before adopting it as a test of the goodness of milk, we desiderate some further proof of the correctness of his premise,—that the amount of sugar in the milk is a correct index of its goodness. There does not appear to be any proof, that, because the sugar is normal in quantity, the caseine and butter must be so also. In the analyses of the milk of cholera patients, Dr Maclagan found the sugar to be, at least, of average amount, whilst the caseine and butter were almost entirely wanting; and there seems to be no reason why similar disproportions between the constituents of the milk might not arise from unhealthy states of the cows yielding it.

Various methods have been devised for determining in an easy way the goodness of milk. Berzelius proposed to accomplish it by determining the amount of caseine; the proportion of this principle being ascertained by the quantity of a solution of sulphate of zinc of known strength, required to produce complete precipitation in a certain volume of the milk. Trommer adopted, as his criterion, the proportion of cream, which he found to separate more completely on standing when 1 or 2 per cent. of crystallised carbonate of soda in solution had been added

to the milk. Perhaps, for the use of public institutions, where we would suggest that the milk should be regularly subjected to some test of its quality, the simplest method is by the use of an instrument on which it has been thought proper to bestow the title of "Galactometer." This is merely a cylindrical glass vessel, a foot long and an inch wide, graduated at the upper end. It is to be filled up with the milk, and allowed to rest undisturbed for twelve hours. The amount of cream which separates is at once read off by the graduations on the tube, and this forms probably the best criterion of the quality of the milk. Moreover, in such a vessel the most common adulteration of milk, viz., with water, proclaims itself. If there has been any such addition of water as seriously to impair the qualities of the milk, it shows, on standing, two distinct portions,—the upper more opaque and yellowish, and the lower more transparent or blue,—whilst unadulterated milk remains homogeneous throughout.]

276.—*On the Affections of the Maxillary Bones among Lucifer-Match Makers.* By Dr Helft.—Dr Helft, of Berlin, considers, from his investigations of these affections, that they are not attributable, as supposed by some pathologists, to a peculiar and special disposition in these bones to the morbid influences of the vapour of phosphorus. He is of opinion that they originate in periostitis, a view which in his judgment receives support from the observation of similar effects as the consequence of the same morbid conditions of the gums produced by other irritating substances. This form of periostitis, whether it be traumatic or rheumatic, or whether it arise from any other cause, at length implicates the substance of the bone, obstructing or destroying its vessels by exudation or suppuration, and thence follows necrosis with those pathological conditions which have been so fully described by Dr Giest, of Erlangen, although this author has not assigned them to periostitis as the immediate cause.

Dr Helft points out that those only among the workers in phosphorous who are of a scrofulous or cachectic habit, and in whom a morbid state of the gums, or alveoli, exists, are exposed to this particular form of disease, as these conditions necessarily render the periosteum more susceptible of the action of phosphorous vapours.

Dr Helft concludes that rheumatism alone will not produce it, but that the same effects would occur in any other morbid condition of the gums, &c., if exposed to the irritant action of phosphorous vapour. An analogous effect is produced by other irritating substances, as is shown in the almost endemic prevalence of periostitis of the alveoli in eastern countries, which partly arises from the use of tobacco, and partly from want of cleanliness, combined with poorness of diet.

The experiments of Bibra on animals show that phosphorous vapour is capable of causing bronchitis, pneumonia, gastritis, periostitis, exostosis, and necrosis. Professor Rigler, of Constantinople, attributes the endemic prevalence of the disease of the mouth to the employment of strong soap to cleanse the mouth and gums by the Turks, and of late by other orientals. Dr Rigler also informs us that the same disease prevailed extensively among some Albanians who were taken from their mountain homes and subjected to military discipline, with an entire change of diet. That the disease had arisen from these causes was rendered evident by its complete arrest on a return to their usual diet, by the prohibition of tobacco, the frequent cleansing of the mouth with a very dilute solution of mineral acid, cauterising the gums with lapis infernalis, and the adoption of other remedial measures.

From the preceding facts, it is obvious that a diseased condition of the jaw-bone may arise from other causes than the irritant action of phosphorous vapour ; and, whatever may be the ultimate decision with regard to Dr Helft's theory, it is undoubtedly of value, as pointing to the due hygienic measures for the prevention, and to the curative means to be adopted for the arrest, of the disease.—*Casper's Wochenschrift*, Aug. 19, 1848, and *Med. Gazette*, May 11, 1849.

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MONTHLY RETROSPECT

OF THE

MEDICAL SCIENCES.

OCTOBER, 1849.

CONTENTS.

I.—MORBID ANATOMY, PATHOLOGY, AND PATHOLOGICAL CHEMISTRY.

277.—*Pathological and Clinical Notes.* By Professor SCHLOSSBERGER of Tübingen. (Communicated by the author.)

I. *Acute Exudation into the Pleura containing Urea and Fibrin of retarded Coagulation—(Fibrin von Spæter Gerinnung), cured by Paracentesis of the Thorax.*—Conrad Hahn, from Dusslingen, a peasant aged sixty-six, was admitted on the 7th June 1847, into Professor Wunderlich's clinical ward, on account of an acute affection of the chest: being a man of very circumscribed intellect, and a confirmed drunkard, all that could be ascertained, from personal examination, respecting the commencement of his present ailment, was, that, about four days previous to his admission, he had been seized with pain in the side, cough, and a slight feeling of suffocation. No information as to previous diseases or other functional disturbances in the present attack could be obtained.

On admission, 7th June, complete dulness on percussion, over the entire posterior surface of the left half of the thorax, and anteriorly as high as the third rib; here the sound was muffled, sonorous anteriorly, absence of respiratory sounds —posteriorly, bronchial respiration. Bronchophony and ægophony— considerable dislocation of the heart—left half of the

thorax an inch broader than the right. Pulse 80, feeble. Subjective symptoms in a remarkable degree trifling. June 9th—great increase of the exudation—the heart beats in the epigastrium. June 12—the entire left half of the thorax is filled by the effusion. June 14th—Paracentesis, giving vent to a great quantity of a yellowish fluid, whose peculiar qualities afterwards to be described, will justify the publication of this case. June 15th—Sonorous percussion sound over the entire left breast with the exception of the lower third of the posterior surface; the heart beats again in its normal place. Anteriorly, vesicular respiration; posteriorly, the same mixed with bronchial, particularly at the root of the lung; inferiorly, fine mucous râle, and pleuritic rubbing sound. From this time forward, gradual disappearance of the anormal sounds, and so speedy a convalescence, that the patient was discharged completely cured on the 5th of July.

These are the essential features of the disease derived from the hospital records. With respect to the composition of the pleuritic effusion immediately to be described, it remains to be added that the patient, before the operation, excreted but a small quantity of urine, rich in uric acid and colouring matter, in which, moreover, albumen was *never* to be detected. After the operation the quantity of urine augmented under the use of diuretics.

Now, to the description of the evacuated fluid itself: quantity, 105 ounces,—on its discharge it was yellowish, full of fine flocculi (fein-flockig), and therefore muddy and glutinous; about an hour after, a compact, greyish, opaque fibrine coagulum had been deposited; the supernatant fluid was now almost pure. *After thirty hours rest*, however, a *new* and very *considerable* gelatinous pure white coagulum was deposited, which completely covered the entire inner surface of the vessel (a capacious porcelain bowl); it consisted of a tremulous transparent jelly, impregnated with a great deal of serum, resembling in form a very delicate membrane. Examined under the microscope, it was seen to consist of a completely amorphous transparent material, containing colourless cells and granules, isolated and in groups, not a trace of coloured blood-corpuscles, but two or three solitary globules of fat.

The fluid pressed from this coagulum of so late formation, had a pretty strong alkaline reaction, and coagulated on boiling in thick flakes; it contained albumen to the amount of 5·52. After the separation, by repeated boiling, of all the albumen from this fluid, diluted with water, an alcoholic extract was made from the concentrated residue of filtration; and from this crystals were obtained by oxalic acid, which were determined, both microscopically and chemically, to be those of the oxalate of urea. In the same fluid from which the albumen was separated, nitric acid detected colouring matter of the bile. Nevertheless no bilin was present.

What is the signification of this second jelly-like coagulum so essentially different from the first, in being first deposited after thirty hours exposure to the air? By reagents it was discovered to be a compound of protein—whether it were fibrin or coagulated albumen, is, in the present state of our chemical knowledge, not discoverable, as we possess no certain distinguishing characteristic between the two; and though the newer pathologists imagine themselves capable of distinguishing with such certainty between these two substances, yet such a proceeding seems to me wholly without support in chemistry, even though attempted by a Rokitansky.

For this late coagulating substance, the name pseudo-fibrine has been proposed. Virchow was the first to call it fibrine of late coagulation (von spæter gerinnung). There is nothing in a name, yet a peculiar nomenclature seems desirable, for this reason, that the attention is by such soonest attracted to a thing but little understood. If the substance be really fibrine, why is coagulation so retarded? if it be albumen, whence comes its—at least apparently—spontaneous coagulation? Our present knowledge is, I believe, insufficient to enable us satisfactorily to answer this question. This can only be possible when many similar observations have been collected and compared. The formation of acid (lactic acid, perhaps—Scherer), was not perceptible in the foregoing case; the fluid was, both at first and afterwards, tolerably strongly alkaline. A bare possibility—but as such only I broach it—is that the admixture of urea in a discoverable quantity might delay the coagulation of one portion of the fibrine, perhaps in the same manner as many neutral salts, or particularly many alkaloids (Magendie), chemically resembling urea. Since cases of *hydrops fibrinosus* are not so very rare, I would beg to direct the attention of physicians to two points—1st, If in similar exudations with fibrin of retarded coagulation, urea is frequently or constantly present; 2d, and particularly, the direct experiment, viz., the addition of urea to such fluids when removed by operation. The cause of the presence of the urea in the acute exudations, I must leave undecided. The existence of Bright's disease

was not improbable, but the urine during the whole course of the disease never contained albumen, and the paracentesis has, at least for the present, rendered post-mortem examination impossible, and postponed it *sine die*.

II. *Analysis of a Phlebolite.*—I received from staff-physician Dr Klein, a true phlebolite, the size of a bean, which he had himself removed from the body of a young man, aged twenty-two years, in whose right vena vesicalis the concretion lay quite free. As but few chemical examinations of such concretions are on record, and these chiefly qualitative, a repetition of the analysis seemed to me not entirely useless. The stone was roundish, composed of not very evident yellowish, white, brittle layers, and having a small hole in the centre; no external cuticular coating could be discovered.

The cementing material seemed to be a protein compound (was dissolved by acetic acid, and rendered violet by concentrated muriatic acid).

The examination was conducted after the method recommended by v. Bibra, in his work on the analysis of bone (1844, p. 118), and gave the following result in 100 parts:—

Phosphate of lime,	50·1
Do. magnesia,	13·7
Carbonate of lime,	8·3
Organic matter,	20·4
Water,	6·1
	98·6

As regards the quantity of the salt of lime present, this phlebolite does not vary much from many human bones (Frerichs, v. Bibra, &c.); but it differs much in its containing so much phosphate of magnesia, which in human bone rarely exceeds one per cent. On the contrary, according to Enderlin's analysis of the ashes of the blood, seven parts of phosphate of magnesia are present to thirty-six parts of phosphate of lime; and in the concretions of many other organs, the intestines, bladder, &c., such collections of salts of magnesia are very frequent.

278.—*Sugar found in the Blood, Tissue of the Kidney, &c., but not in the Spleen and Pancreas, of a Diabetic Patient, who died suddenly.*—M. Bernard lately examined the body of a diabetic patient, under the care of M. Rayer, who died suddenly on the third day after admission into hospital. The urine, drawn off while the patient was yet warm, contained a large quantity of sugar. The liver, mis-shapen, and much larger than in the natural state, contained also a large proportion. The kidneys were also enlarged; the left kidney weighed 245 grammes (nearly eight ounces), and the right 235 grammes (seven and a-half ounces). On washing the tissue of the kidneys, sugar was obtained, but in a much smaller quantity than from the liver. The pancreas and spleen were diminished in size, and contained none; nor was there any in the nervous centres. The blood contained large quantities of sugar, from whatever part it was taken. M. Bernard, in calling to mind a case, in which the serum of the blood, left to itself, became acid by the decomposition of sugar, remarks that this bears on a circumstance in the present autopsy. Sugar was found in the serosity which filled the pericardium; but this same alkaline serosity, when removed from the pericardium, became acid in consequence of the decomposition of the sugar. The intestinal and gastric juices, which seem remarkably fitted for the decomposition of sugar, contained none. M. Bernard has met with sugar in the semen of a goat, which had been artificially rendered diabetic. It is interesting to know that, in cases where the tissues and fluids of a diabetic patient can be examined after sudden death, sugar may be found in the blood, liver, and kidneys. Ths difference in the reaction of the fluids, hitherto referred to the cause which produces the diabetes, are seen to be dependent merely on the decomposition of the sugar.—*Gaz. des Hôp.*, 10th July 1849; and *London Jour.*, Aug. 1849.

II.—PRACTICE OF MEDICINE.

279.—*Intercostal Neuralgia, with Intermittent Fever.* By MM. Piorry and Legendre (Hôpital de la Pitié).—The authors relate three cases in which intercostal neuralgia of the left side existed in connection with attacks of intermitting fever, occurring several times in the course of the day. All the attacks were in females, subject, for a longer or shorter period, to hysterical seizures, but without any marked visceral disease. In particular, the spleen (which has been so frequently asserted by M. Piorry to be constantly enlarged in intermittent fever) was of the normal volume (three inches in length), as ascertained by percussion. The pain was acute, and great tenderness was manifested on drawing the finger

along *the inferior border* of the ribs in the left lateral region. In one of the cases sulphate of quinine was given for two days, but without effect, and the cases were, on the other hand, much benefited by blistering, or the local application of chloroform, together with the use of baths.

M. Piorry explains the connection between intercostal neuralgia and intermittent fever, in the following manner:—The intercostal nerves communicate with the great sympathetic nerve; and when the diseased filaments terminate (*aboutissent*) in the splenic plexus, they disturb the function of the spleen without altering its volume. In like manner, adds M. Piorry, if the intercostal filaments communicate with the eighth pair, they produce disturbance of the functions of this nerve, and cause the *globus hystericus*.

M. Piorry directs particular attention to the fact, that sulphate of quinine is useless in those cases, *the spleen not being enlarged*. [We think this insufficiently proved in the cases before us, the medicine having only been administered for two days, and that only in one of the cases.] He maintains, that wherever intermittent fever is connected, as he asserts it almost invariably to be, with enlargement of the spleen, the disorder of this viscus is to be considered as its cause, and the sulphate of quinine proves remedial by directly reducing the organ to its normal proportions. But where the fever depends, as in these cases, on a secondary nervous disorder of the spleen, the specific power of the quinine cannot be brought into action.—*Gazette des Hôpitaux*, July 12, 1849.

[We cannot regard this attempt to bring these anomalous intermittent fevers within the order of M. Piorry's favourite *splenopathies*, as altogether successful. It is obvious that his opponents might say here, as they do with regard to the more ordinary cases, that he inverts the order of events; that the irritation of the splenic nerves was indicative of a functional disorder of the spleen (*splenopathie*), *caused by* the intermittent fever; and that this nervous disorder, to which the patients, from their hysterical tendency, were probably predisposed, was communicated secondarily to the intercostal nerves. At all events, it is clear that M. Piorry has himself, by the detail of these cases, destroyed the force of his own assertion of the invariable connection of hypertrophy of the spleen with intermittent fever as its cause. Had M. Piorry, in the numberless debates on this subject in the Academy of Medicine, admitted that functional disturbance of the spleen, or of its nerves, might co-exist with intermittent fever *without* increase in the size of the organ, he would have been at one with many of his opponents as to observation, although his theory would have lost one of its main pillars of support. The frequency of the connection between splenic derangement and intermittent fever, is not doubted by any physician of experience; and much credit is due to M. Piorry for the labour he has bestowed on the investigation of this subject. But the question still remains, Which is the cause and which the effect? and this question M. Piorry has repeatedly answered by the assertion, that an enlargement of the spleen is *always* to be discovered, by percussion, in *every stage* of the affection, and therefore must be looked upon as essential. Any denial of this proposition, any assertion of cases in which the hypertrophy of the spleen was absent, was met by the retort of imperfect observation, and incapable diagnosis. Yet here we have M. Piorry himself admitting the existence of such cases, without appearing to consider how much they affect the stability of the theory of which he has been so long the confident and exclusive supporter.

We may remark, that it is not very clear that an intercostal neuralgia of the left side should, on anatomical grounds, be ascribed to an affection of the splenic plexus, rather than any of the other portions of the cœliac plexus, or even than the renal or mesenteric plexuses, which, like the cœliac, communicate with the intercostal ganglia through the solar plexus and splanchnic nerves. The external site of a pain so communicated is obviously no guide whatever to its seat in an internal organ; and, accordingly, M. Piorry's idea as to the mode in which the spleen was involved in this case, or even the supposition of the spleen being specially involved at all, is a perfectly gratuitous hypothesis. We are led to make this remark the more strongly from having lately seen a case in which a most intense pain of this kind existed in the left lateral region, connected with long-continued intestinal irritation from tape-worm in a very hysterical individual, and where no intermitting fever, nor any trace of splenic affection, had ever existed.]

280.—*Remedies in Infantile Diseases.* By Dr John B. Beck.—[The necessity of minutely attending to the action of those remedies which are most usually had recourse to in the treatment of the diseases of infants, will be sufficiently obvious to all who have watched with ordinary care the occasionally injurious effects of some

of the most important and energetic modes of treatment commonly adopted in infantile diseases. *Opium, tartar emetic, mercury, blood-letting*, and the *application of blisters*, are probably the most efficient remedies in the most deadly complaints of children; but the remedial use of these require considerable acquaintance with what may properly enough be termed the great *impressibility* of the infantile organization, and its consequent great tendency to irremediable derangement, by inconsiderate medicinal treatment.]

Dr John B. Beck, in his short "Essay on Infant Therapeutics," recently published in New York, offers a few very valuable hints and requisite cautions regarding the abuse of these useful agents. For example, in discussing the effects of *opium* on the young subject, Dr Beck probably points out that this powerful medicine acts with greater energy, and at the same time with much less certainty, in infants than in adults, that these facts arise out of the physical organization (more especially as regards their cerebral circulation), also from constitutional peculiarities, and the actual state of disease in infants. From a full consideration of these conditions, and of the fatal consequences attending the misuse of opium, the author urges the following judicious cautions :—1. To avoid its use as much as possible in the young subject. 2. To observe great care as to forms of its administration. 3. To begin its use in very small doses. 4. Not to repeat them at too short intervals. Dr Beck's remarks on the administration of *tartar emetic* are also of practical value; the author properly lays it down as a rule that this drug, which is so often observed to have a very pernicious influence on the young subject, ought seldom or never to be administered to children under one year old, and to others only rarely. *Mercury* he considers abused when given, as it too generally is, rashly as an every-day purgative. *Blisters*, from their great readiness of operation on the very susceptible organization of infants, and their speedily injurious effects, demand extreme caution in their use; and, therefore, the importance of not resorting to their use unless some certain good can reasonably be expected therefrom, is also properly insisted upon by Dr Beck—who also, in his fifth essay, sets before us the great susceptibility of infants to the effects of *blood-letting*. The author more especially protests against the abuse of the remedy in infants, which, he informs us, is a prevalent error in the United States, owing to the great influence of Dr Rush, who advocated its employment, in all diseases, to an injudicious extent.—*Medical Gazette.*

281.—*On Eruptive Fevers without Eruption.* By M. Trousseau.—Some practitioners doubt the accuracy of the facts related by some of the great observers of former times, concerning the existence of eruptive fevers without eruption. They have been especially considered as apocryphal in our times, when the localisation of disease plays so large a part in the nosological systems. But when we consider that all pathologists admit that these diseases attack the mucous membranes as well as the skin, it is obviously improper to consider them as diseases of the skin; and in many cases we observe the eruption to be so very slight, that we can very well imagine it may in others be absent, without the necessity of denying the existence of the disease.

In illustration of such occurrence, Dr Trousseau details the history of a Lilliputian epidemic that occurred in a retired hamlet near Paris. The hamlet only contained three families, of twelve inhabitants, none of whom had had scarlatina. It appeared in a mild form; every one of them was ill, but in different degrees and forms. Eight persons had the rash and angina in their most distinct forms, but four suffered only from severe fever, with angina and desquamation of the tongue. In these the convalescence was tedious, especially in one case where albuminuria followed. Who can doubt that these four were likewise subject to scarlatina, although, had they been presented to the observer in an isolated manner, he being unacquainted with their antecedents, the nature of the case would have been overlooked.

Two facts which have recently occurred in the hospital alike serve to show the possibility of the occurrence of eruptive fevers without eruption, and the difficulty of judging correctly concerning such cases when seen in an isolated condition. A boy, æt. 7, was brought in suffering from croupal cough, laborious respiration, and high fever; an emetic and some small doses of calomel were given, and next day the character of the cough was much better, but there was still much fever and oppression, and auscultation indicated a capillary bronchitis. As the eyes were observed to be somewhat injected and weeping, the tongue red at the tip, and a little blood plugged the nostrils, it was deemed probable that it was a case of measles, but it was only by very diligent search some rose-coloured non-prominent spots could be detected on the

forearms. On compressing the arm, so as to inject these more, their measly character became evident. In a few hours they entirely disappeared, never more to return, "though the entire body of the child was whipped with nettles twice in one day." It is evident that the diagnosis of this disease could not have been made had not the arms been examined just when they were, and that even this small manifestation would not have taken place had the arms been exposed to the cold, instead of enveloped in a warm dress. About the same time a child, æt. 2, was brought in, suffering from a severe form of pleuro-pneumonia, having been ill for eight days. The next day an eruption of measles spread all over the body. No physician, let his sagacity be what it might, could have recognised the measles the first day, and yet it is evident that in this child, as in the other, the rubeolar eruption had predominated on the pulmonary mucous membrane, so as to produce an antagonistic fluxion, preventive or retardatory of, or diminishing, the cutaneous eruption. Such antagonistic fluxions may not unfrequently suffice to prevent all cutaneous eruption, and then we have eruptive fevers without eruption. In scarlatina it is to the mucous membrane of the pharynx and mouth that the critical phenomena are diverted.—*L'Union Médicale*, No. 54.

[We were lately in attendance upon a little boy, in whom the eruption of the skin and the angina were so slight, that we merely at first conjectured the possibility of scarlatina, although subsequent desquamation and the peculiar depression, such as is produced in some children by the presence of its poison in the blood, enabled us afterwards to be quite certain on this point. A brother of the above, æt. 5, from being an active, lively lad, became a moping, dull one, suffering much from lassitude and anorexia. Repeated careful examination discovered not a trace of eruption or angina, and no suspicion of the possibility of scarlatina could have been excited but for the teaching of the other case. Nevertheless in a week or two's time, decided anasarca, with albuminous urine, manifested itself, requiring a long course of aperients, tonics, and baths for its removal.]—*Brit.* and *For. Med.-Chir. Rev.*, July 1849.

282.—*Dissecting Aneurism, Hemiplegia, and Hypertrophy of the Heart.* By J. R. Bennett, Assistant-Physician to St Thomas's Hospital.—A shoemaker, aged fifty-two, was admitted into St Thomas's Hospital, under Dr Bennett, on February 27, 1849. His habits had been temperate, and previous health good, till within five or six months, during which time he had suffered from palpitations of the heart, vertigo, and uneasiness of the head. Fourteen days before his admission he had an attack of hemiplegia; on his entrance into the hospital he was still hemiplegic, and on examination there was evidence of a greatly enlarged heart, but of no obstruction to the circulation, either pulmonic or systemic; there was a slight diastolic bruit heard just below and to the right of the left nipple, and there only. His general condition varied from time to time till April 21, when the paralytic symptoms became suddenly aggravated. On the 24th he suddenly uttered a cry, indicated that he had a pain in the chest, and died in three or four minutes. Post-mortem examination revealed an apoplectic clot in the left corpus striatum, surrounded by much softening of the brain, and a similar clot in the centre of the pons Varolii, surrounded by white softening. All the arteries at the base of the brain were loaded with atheromatous deposits. In the left pleural cavity there were between three and four pints of coagulated blood, which had escaped through a laceration in the costal pleura, and blood was extravasated beneath the pleura, in the neighbourhood of this opening, and into the posterior mediastinum. On laying open the aorta *in situ* there was found a transverse rupture, three-quarters of an inch in length, immediately beneath the origin of the subclavian artery. Above the point of rupture the arterial coats were not separated for more than a line or two in extent, but from this point downwards, as far as the iliacs, the artery was split up by the blood, which had been forced along between the fibres of the middle coat. Throughout, the aorta and its main branches were studded with atheromatous deposit. The heart was enormously enlarged. The valves and endocardial membrane were healthy, with the exception of a slight opacity of the former; the coronary arteries were healthy. The lungs were healthy. The kidneys pale and mottled. The author remarked on the important chain of morbid phenomena presented by the case, and considered the general arterial disease as the origin of all the structural changes both in the heart and brain. The patient appeared never to have had any arthritic disease, and there was nothing to indicate that the heart or pericardium had ever been inflamed. The hypertrophy of the heart was therefore referred to the loss of elasticity of the aorta, but it was suggest-

ed that the aortic valves might, in consequence of the force to which they were subjected, have allowed some regurgitation, and the existence of a diastolic bruit was supposed to favour such a view. The augmented nutrition of the heart, and the healthy condition of the coronary arteries, was contrasted with the condition of the brain and its diseased arteries.—*Royal Med. and Chir. Society*, June 26, 1849.

283.—*Is Chloroform contra-indicated by Epilepsy?* By Professor SCHLOSSBERGER, of Tübingen.—A young strong-looking student of this University, who, however, had for years been subject to epileptic attacks, but only recurring after considerable intervals,—six or eight months,—breathed, a few months ago, previous to a tooth operation, a tolerable quantity of chloroform—against my will, as I feared its effects on his disease. The chloroform was fresh prepared by myself, the apparatus good, and the inspirations correctly performed; nevertheless, the wished-for anæsthesia was not attained; on the contrary, shortly after this attempt, his epileptic attack came on, much sooner than was to be expected, and in the course of the following three months has recurred thrice. Consequently, the employment of such heroic anæsthetics in epilepsy appears to be at least doubtful, if not dangerous, as far as can be inferred from one case.—(*From the author.*)

284.—*On some of the Symptoms of Typhoid Fever.* By J. B. S. HILLAIRET.—*Double pulse.*—This was first noticed (1707) by Solano de Lucques, a physician practising in Spain. He regarded it as an infallible precursor of epistaxis, and prognosed the severity of the attack from the character of the pulse. Nihell, an Irishman, then at Madrid, became a convert and zealous disciple of Loland, and carried his views to even a greater degree of minuteness. A few years later (1754) Theophilus Borden published a famous work on the same subject, adopting, however, slightly different views regarding the *pulsus dicrotus* as symptomatic of some critical excretion of the superior part of the body, as the chest, throat, or nose. At the end of the eighteenth and commencement of the nineteenth century, Fouquet and other physicians adopted similar views. Since then the state of the pulse, save with respect to mere rapidity, has been too little noticed. No one,—not even Bretonneau, Chomel, or Andral, previous to M. Bouillaud,—has made mention of this pulse as a symptom of typhoid fever. The author, in common with Solano and other observers, has remarked three distinct varieties of this pulse; in the first variety, the second pulsation is scarcely perceptible; in the second variety, the first pulsation is the more feeble; and in the third, both pulsations are of equal strength. The first variety was found only at the commencement of the typhoid symptoms when they are fully developed in patients of feeble constitution. That variety in which both pulsations were equal in strength, occurs in the most severe cases, and after a lengthened continuance of the fever.—*L'Union Médicale*, Août 1848.

285.—*On Inflammation of the Intercostal Nerves (Nevrite Intercostale) in Pulmonary Phthisis, and other Affections of the Lungs and Pleuræ.* By M. J. H. S. BEAU.—Intercostal neuritis is an affection which habitually coincides with inflammation of the pleura, whether simple or combined with pulmonary inflammation. The explanation of this coincidence is found in the anatomical relations of the pleura and intercostal nerves, which are in immediate contact at the posterior part of the thorax. According to the author, the *stitch* in the side, which attends affections of the pleuræ, and most severe pulmonary affections in which the pleuræ are involved, is owing to inflammation of the intercostal nerves, which are found enlarged to two or three times their normal size, adherent to the pleura or to the cellular tissue in which they lie, and, in acute cases, much injected. The degree to which the nerves are affected bears an exact relation to the amount of affection of the pleura, and is therefore evidently secondary to it.

When the lung is attacked by tubercles, it almost invariably happens that adhesions of the pleuræ take place in their neighbourhood. The adhesions, like the tubercles, are at first confined to the summit of the lung, and are attended by the same change in the intercostal nerves as in the case of acute affections, only that the lesion is chronic in its development, and not generally characterised by increased vascularity.

Thus the author explains the dull pains which occur at the summit of the thorax in phthisical persons. Sometimes these pains are sufficiently distinctly marked, and even neuralgic in character; they radiate into the neck and supra spinous fossa, or even along the arm, as in angina pectoris; this divergence being due to the inosculations between the intercostal nerves and those of the cervical and brachial plexuses. But it is not always so, nor can

these pains be said to be even a habitual symptom of phthisis. Nevertheless the lesion of the intercostal nerves is almost always found after death from this disease.

In seeking to explain this contradiction, M. Beau has discovered a symptom, to which he attaches considerable importance in the diagnosis of doubtful cases of phthisis. Even where no pain is manifested under ordinary circumstances, he finds that this symptom may be almost constantly educed by moderate pressure with the finger on the anterior or sternal extremity of the intercostal spaces. In early cases it is limited to the upper part of the chest; and is, generally speaking, more severe in the first space than in the second, in the second than in the third, &c. It varies in intensity, but sometimes is so considerable as to cause an involuntary shrinking on the part of the patient. It is most severe, and affects the greatest number of spaces, on the side in which the tuberculization has advanced farthest.

This symptom is almost constant in phthisis pulmonalis. Among fifteen cases under M. Beau's observation at the time of writing, it was not absent in more than one; and only one of these cases presented the symptom of *spontaneous* pain. The author, therefore, thinks it will prove a useful diagnostic mark in cases where the physical signs of phthisis are masked by bronchitis. The predominance of the pain in the anterior part of the spaces, where the alteration of the nerves is least considerable, is ascribed by M. Beau to the circumstance that, when a nerve is diseased in any part of its course, the morbid sensibility is always referred to its peripheric extremity.

Another form of the intercostal neuralgia of phthisical patients is the pain between the shoulders which has been so frequently described as characteristic of phthisis. In these cases the author has always found that the pain may be traced along the intercostal spaces to the anterior part of the chest. M. Beau had previously endeavoured to demonstrate the connection between intercostal neuralgia and dyspepsia; he now considers both these symptoms as related to phthisis, of which disease dyspepsia, as is well known, is a frequent accompaniment.—*L'Union Médicale*, July 21, 1849; and *Archives Générales de Médecine*, Feb. 7, 1847.

[We think that M. Beau has underrated the frequency of *spontaneous* pain in phthisis. It is not constantly present, or even habitual, in any case of the disease; but we believe that careful inquiry will show, that in few cases does the disease make much progress without manifesting occasionally, and it may be slightly, those flying pains so well described by Dr Watson, and referred by him to casual pleuritic attacks. We are, however, much indebted to M. Beau for calling attention to a symptom so easily ascertained as the one we have described; and, if it be found as constant as the author supposes, it will undoubtedly be a diagnostic mark of no small value.]

III.—PRACTICE OF SURGERY.

286.—*On Cervical Abscesses; the Accidents which sometimes attend their Treatment in reference to Hemorrhage; and a new Operation for securing the common Carotid Artery.* By W. Hargrave, M.B., Professor of Surgery in the Royal College of Surgeons in Ireland, &c.—In the *Dublin Quarterly Journal* for August 1849, there is an interesting paper, by Dr Hargrave, on the above subjects, of which we subjoin the following abstract. Dr Hargrave first notices, under the following heads, cases which have been already published in which hemorrhage followed the opening of cervical abscesses:—

"I. An abscess formed on the right side of the neck in a young child; a peculiar thrill and tremor was observed in it; after much deliberation it was punctured, pus mixed with blood flowed from it, then pure blood; the orifice was closed; the child died that evening. The post-mortem examination exhibited a cribriform communication between the abscess and the external jugular vein.—*Med. Gaz.*, May 10, 1844, vol. ii., N.S., p. 206.

"II. A remarkable case occurred in the practice of the late Mr Liston, who punctured an abscess on the right side of the neck, with which the common carotid artery had communicated. The vessel was secured low down in the neck. The patient dying of arterial hemorrhage on the fifteenth day, the artery was found to have opened into the abscess. In the paper detailing these circumstances, Mr Liston mentions three instances of communications between large arteries and abscesses. Three other examples of arterial openings in cavities of this description have been recorded by Mr Partridge.—*Lancet*, vol. i., p. 864, 1841-2.

"III. An abscess formed spontaneously in the neck five months before death; a

white purulent discharge from a fistulous opening in the supra-sternal fossa remained, from which arterial hemorrhage occurred ; it was arrested by compression, but returned on this means being discontinued. The patient sunk in forty-eight hours from the first invasion of the bleeding. The post-mortem examination exhibited an old abscess of a large size, occupying the front of the neck below the larynx, and extending behind the sternum to the right of the arch of the aorta ; also a right lateral extension between the right bronchus and arteria innominata to the spine, which, however, was not diseased. The external cellular coat of the aorta and arteria innominata was removed, the fibrous one to some extent ; in the centre of it a lacerated opening, about a quarter of an inch long, was found, which penetrated the lining membrane.—*Lancet*, July 11, 1846, p. 44.

"When abscesses form in the tonsils, I have witnessed most alarming hemorrhage follow their opening, even when performed with every care, but in no instance has death occurred. In examining the vascular relations of these glands to explain such an occurrence, they present us with three varieties, two of which will afford such hemorrhage as may or may not be fatal ; the third, I presume, will always prove so. Under the first head we find the tonsilitic arterial circle, which, if wounded in opening the abscess, will often give an active flow of blood. The next source from which we should be prepared for a serious loss of blood is the inferior or ascending pharnygeal artery, which creeps to the base of the cranium, close to and external to the tonsil. I feel satisfied that, in one case of very alarming hemorrhage which I witnessed, it came from this vessel. Under the third head the bleeding is from the internal carotid, a wound of which must be almost instantaneously fatal.

"From oral communications with some of my medical friends, other instances have come to my knowledge, not alone of excessive and often returning hemorrhage in the same patient, but in which a fatal termination has followed the opening of purulent collections, the sequelæ to scarlatina.

"From an attentive examination of the abscesses which have been complicated with active losses of blood, I find that the majority of them were in subjects of a more or less cachectic habit, suffering from struma, or bad forms of scarlatina, perhaps also of a cancerous diathesis."

Dr Hargrave then proceeds to relate a case of active bleeding following the opening of a cervical abscess, for which he tied the carotid artery by a new method, which we shall notice after giving an account of the case.

"Patrick Beahan, aged sixty-one, master of a ballast lighter, was admitted into the City of Dublin Hospital, on the 15th of January 1849, under the care of Dr Hargrave.

"Two years previous to his applying to the hospital he had a superficial cancer on the lower lip, on the left side, which was removed by some powerful escharotic, leaving a slight depression evident on the lip, but no trace whatever of cancer or any local affection remained. He had been attending as an out-patient for some weeks, for a tumour occupying the space between the symphysis and the angle of the jaw on the left side. The tumour was rather firm on pressure, and, on careful examination, fluctuation was very evident. It was punctured last Saturday by Dr Hargrave, and a quantity of straw-coloured serum, mixed with scrofulous-looking matter, discharged ; a dossil of lint was introduced into the incision ; he was directed to poultice it, and, if any occurred, to return on the following day. On Sunday, shortly after twelve o'clock, he experienced a very severe rigor, with intense headache, sickness of stomach, and pain in the tumour ; on Monday he came to the hospital in the following condition—the left side of face swollen, with an erysipelatous blush spread over it, and extending to near the left eye; pain in the tumour; some headache ; thirst ; pulse 92, full and strong ; tongue coated ; bowels constipated ; the dossil of lint was removed from the wound ; he was ordered to bed, and a purgative bolus was prescribed.

"From the 16th of January the erysipelas, which had extended upwards over the face to the scalp and eye-lids, and was attended with nocturnal raving, was treated by leeches in small numbers, applied at two different periods, by mercurial inunction, and the internal use of camphor, bark, and aromatic confection ; poultices were applied to the abscess, the discharge from which was daily improving in character up to January 20th, when something *like grumous blood appeared on the poultice ;* this appearance continued the following day, but was less the one after.

"23d January.—About half-past seven o'clock last night a gush of blood came from the cavity of the abscess, through the lancet wound which was made on the 13th instant ; it flowed *per saltum*, was of

a florid red colour, and was arrested by placing the finger on the wound. He was asleep when the hemorrhage first commenced, but it awoke him, and although assistance was at hand immediately on its being discovered, he yet lost a considerable quantity of blood, his shirt, the sheet, and the pillow-cover, being saturated with it. When the finger was removed from the wound, the blood came out in a jet the thickness of the little finger, and was thrown fully a yard distant. A consultation was held, and it was decided that the common carotid artery should be tied. The operation was performed by Dr Hargrave.

"Immediately after the vessel was tied, the patient had two severe rigors, quickly succeeding each other, but of short duration; they were followed by active vomiting of some fluid; there was no alteration of vision. No blood was lost during the operation. The pulse was slow and weak; while on the table he got a glass of wine, and at ten o'clock P.M., eight grains of compound chalk powder, and Dover's powder, were administered to him, his bowels being rather free during the day. He passed a quiet night, with some wandering, but not so much as previously; no headache; some thirst; bowels moved twice; pulse 68, soft and weak; tongue coated and moist; no pain of neck; swelling of face much less, but abscess much larger, the cavity of it being probably filled by coagulated blood; a coagulum occupies the wound in it; surface of body warm. Diet—arrow root, beef-tea, and cool barley water.

"From the morning of the 23d January, the day after the operation, absolute repose was enjoined, warm water dressing was applied to the abscess, which ulcerated in a fresh portion of the skin below the puncture, and discharged large clots of blood. The two openings were then laid into one. The discharge, though of a healthy character, possessed great fetor, caused by disease appearing in the inferior maxilla, which had become deprived of its periosteum, the bone being scabrous and rough. The constitutional treatment consisted in the administration of the syrupus cinchonæ, occasional doses of camphor, with sub-carbonate of ammonia, and opium, and a guardedly generous diet. The case progressed favourably up to the thirteenth day from the application of the ligature, when the report states: 'Feb. 5th.—At about half-past eight o'clock last night some hemorrhage took place from the incision made for taking up the artery; the blood was of a florid red colour, not much in quantity, and stopped of its own accord; after it, his pulse was full, strong, and 92; the dressings, which were not removed, were incrusted with blood; he rested very well during the night, till half-past six o'clock this morning, when hemorrhage again broke out; it came *per saltum* from the dressings, was of a florid red colour, and profuse in quantity; his flannel vest, shirt, and the sheet, were saturated with it as far down as his hips. When the dressings were removed it was arrested by pressure. Pulse very weak and easily compressed; surface of body and feet warm; says he felt a throbbing in his neck before the hemorrhage occurred; tongue rather moist and clean; complains of thirst.'

"I was called to him at seven o'clock, A.M., and but for the clear, intelligent expression of his eyes, would have considered him moribund; he was given some wine and water; a firm clot of blood glued up the wound; the ligature was *in statu quo*. All the parts were kept as quiet as possible, and dressed with matico leaves moistened in hot water, laid thickly over the incision, over which was placed a compress of lint, well saturated with an infusion of the leaf, and secured by means of adhesive plaster.

"From this morning (Feb. 5th), the local treatment consisted in the daily dressing of the wound as just described. The parietes of the abscess were excessively indolent, showing no tendency whatever to granulate; a whitish painless fungus appeared at its internal surface, but it still discharged rather laudable pus. It was cleansed out occasionally with a solution of chloride of lime, and also a weak solution of chloride of zinc, a grain to the ounce of distilled water. It was dressed alternately with Peruvian balsam and compound tincture of benzoin. The constitutional treatment was successfully directed to allay a very harassing cough, by means of gum ammoniac mixture, ipecacuanha wine, syrup of Tolu, &c.

"Feb. 12th.—The report states: 'The ligature came away quite easily in the dressings this morning; some old clots of blood and sloughs also came away with it; no hemorrhage; the incision is granulating. An abscess is forming behind the angle of the jaw on the left side, which part is swollen and painful. In the original abscess there is a quantity of sloughy matter, apparently the remains of the cyst, while anteriorly there is a hard, elastic mass projecting into the opening of the abscess, and presenting the appearance of a gland; the inferior maxilla feels quite denuded of periosteum, and scabrous. The man sleeps well; his appetite is

good; bowels regular; pulse moderate; tongue very clean. To continue the treatment.'

"From the date of the operation to the casting off of the ligature, twenty days and a-half elapsed; subsequent to this his general health continued improving in every respect, but the original local disease showed no great tendency to heal; on more than one occasion, it appeared to me to exhibit something of a malignant character, but was always devoid of pain. Small abscesses began to form, one in the left cheek, giving exit to healthy matter, another in the vicinity of the great left cornu of the os hyoides; while the one inferior and posterior to the angle of the jaw discharged large quantities of healthy purulent matter. As he exhibited some impatience at remaining in hospital, although availing himself of exercise in the garden, it was considered best to comply with his wishes, and, by permitting him to return home, observe the effects of change of air, not alone for the healing of the original, but also to prevent the formation of other abscesses. He was accordingly discharged on the 13th March, the following appearances being then noted: 'The skin was of a livid colour, particularly behind the angle of the jaw, on the neck, below the arterial incision, and also under the chin. The cheek on the left side is much more prominent than the right, commencing near the symphysis menti, extending backwards to the ear, and behind the angle of the jaw, upwards to a line drawn from the angle of the mouth to the meatus auditorius externus, and downwards to the arterial wound. The induration in the tumour is not so great, the parts being infiltrated, as it were, with purulent matter; the ulcerated opening is about the size of half-a-crown, its edges somewhat everted, and at its inferior part is a small eminence growing from the inside of the wound, and covered with a yellowish slough; the surface of its cavity presents a granular appearance of a greyish colour, and its depth is about two inches and a-half; the discharge is rather thin and scanty, of a light yellowish colour, and slightly fetid; when pressure is made under the chin, healthy pus is discharged from the opening. The inferior maxilla is quite rough and bare, and the arterial incision is all but healed. The collateral circulation was beginning to manifest itself; as an artery, perhaps a fifth thyroid, could be observed pulsating and ascending along the mesial line of the neck.

"While preparing this communication for publication, I was informed that this patient died on the 2d of April last. On inquiring from his brother the particulars attendant on his death, and his condition since he left the hospital, he informed me that the ulcer diminished somewhat in depth, also in the circumference, and he never complained of pain in it; he suffered much from cough, and expectorated large quantities of a thin, ropy fluid; his dissolution was calm and tranquil."

One of the most interesting features in this important case is the successful management of the secondary hemorrhage, which took place on the thirteenth day after the artery was tied. As the blood came profusely, and *per saltum*, it would appear to have been from the cardiac side of the ligature. It was first arrested by pressure, of what kind is not stated. The wound was then dressed with matico leaves, moistened in hot water, laid thickly upon it; over which was placed a compress of lint, saturated in the solution, and this was secured by adhesive plaster. After this the same dressings seem to have been daily renewed; and Dr Hargrave thinks it fair to infer that to this method of dressing was due the prevention of the return of the secondary hemorrhage, and he reckons it a valuable and simple application in such circumstances. He has found the infusion of this leaf most useful, as a styptic, in controlling the bleeding in persons of hemorrhagic diathesis.

The *method of operation* practised in this case is new, and is deserving of the attention of surgeons. "A *transverse incision* was first made through the integuments, about two fingers' breadths above the clavicle; the sterno-mastoid muscle was then carefully divided upon a director for its entire breadth, and the sheath of the vessels was easily brought into view, crossed by the omo-hyoid muscle, which was distinctly seen occasionally in action. The sheath of the vessel was next opened, and the aneurismal needle passed under the artery from without inwards; it was then armed with the ligature, the needle withdrawn, and the artery firmly tied: the hemorrhage was instantly arrested, and all pulsation in the temporal artery ceased. No blood was lost during the operation; only one small vein was met with, and that at the commencement of it. The internal jugular vein presented no impediment during its performance."

Dr Hargrave continues, that, by thus cutting completely across the sterno-mastoid, he was enabled to come down upon the artery, "in the easiest way, with a free gaping wound, experiencing no impediment either from the eighth pair of nerves or from the internal jugular vein.

My reasons for adopting this innovation were, the comparative shortness of the man's neck, and in order to obtain a sound portion of the integumentary membranes free from erysipelatous inflammation."

"In the subsequent steps of the operation, this selection proved to be most fortunate, as it was discovered that the blood effused from the artery was extravasated as low as the cricoid cartilage; so that if the usual line of incision had been adopted, along the anterior edge of the sterno-mastoid muscle, the certainty is, that I would have opened into the cavity formed by the effused blood, and would have found it almost impossible to have proceeded with the operation so as to tie the vessel. I would have been inundated with blood, and ultimately obliged to abandon it, and adopt that very unsatisfactory and doubtful practice of plugging the wound with sponges and compresses, to procure, perhaps, but a temporary continuance of life.

"In none of the special works on operative surgery with which I am acquainted are any directions given for taking up the carotid artery as now detailed. I have been for some years in the habit of describing this operation in my lectures on operative surgery; and also of directing the attention of naval surgeons, who have performed a course of operations in surgery under my superintendence, to this operation. From the facility of securing the artery by the plan now proposed, I consider it deserving of a place in the systematic works in this department of surgery, and would term it the *Transverse Operation, or section of the sterno-mastoid muscle for the ligature of the common carotid artery.*"

[It does not clearly appear from Dr Hargrave's remarks whether he would recommend this new method of operating in all cases, in preference to the usual method by incision in the course of the artery, or only in those, where, as in the case above detailed, the operator has very little room. The method cannot, of course, apply to the upper third of the common carotid, but to the two lower thirds where it is overlapped and covered by the sterno-mastoid. In operating by incision in the course of the artery at its middle third, sufficient room may be obtained by pulling the muscle outwards; but opposite the lower part of the vessel, it is necessary to divide, as is usually recommended, the sternal portion of the muscle, when it presents in the wound. In like manner, the sterno-hyoid and thyroid muscles must afterwards be held inwards or divided, in operating towards or at the lower part, in order to expose the sheath. Unless the operator's space be very limited, from above downwards, the advantage of making the incision across, instead of over, the course of the artery, is not apparent, as the division of the sternal portion of the muscle in the latter affords ample room in front of the sheath. Very different accounts have been given as to the interference occasioned, in the operation upon the carotid, by the swelling out of the internal jugular vein. This will depend, in a great measure, on whether the sheath has been opened towards the outer or inner side. In the method of operating by transverse section of the entire sterno-mastoid, the vein is more likely to be exposed; but, in Dr Hargrave's case, no trouble was occasioned by the vein, although the operation was low down on the left side.]

287.—*Removal of a Foreign Body from the Abdomen.* By John G. Kyle, M.D., Ohio.—A boy, two years of age, had become weak and emaciated. When seen by Dr K. there was great abdominal pain and tenderness, and, extending across the abdominal wall, below the umbilicus, a red raised mark, about an inch in breadth, with the appearance of pointing at one end. Fourteen days before, the patient had been badly choked by something, which he swallowed with considerable difficulty; and two or three days afterwards he became fretful, lost his appetite, and had pain in the bowels. Dr K. concluded that some indigestible substance had been swallowed, which had got entangled in some fold of intestine, had passed through its coats, and was now making its way out; and that an operation would be necessary.

A small incision was made midway between the anterior superior spine of the ilium and the umbilicus. The abdominal muscles were divided carefully, and a foreign body was felt under the peritoneum. On puncturing this with a sharp-pointed bistoury, a brown corn straw presented, and was laid hold of with forceps, and extracted. It was three inches in length, and forked near the middle. The wound healed by the first intention, and the boy regained his health in a short time.—*Med. Examiner*, Feb. 1849.

[We may here mention a case which occurred some years ago in this country, and which, although not altogether analogous to the preceding one, is interesting in connection with this subject.

A woman was being tapped for dropsy. To remove some obstruction which occurred in the canula a common probe was

used, and, somehow, it slipped accidentally into the abdomen. After a few weeks passed quietly, an abscess formed and pointed in the groin. The abscess was opened, the probe recovered, and the patient did well.]

288.—*Effect of Ligature of the Carotid Artery on the Brain.* American Committee on Surgery.—"Within a year or two past, attention has been, in a particular manner, directed to derangement of the cerebral functions following ligature of the common carotid artery. These cerebral symptoms are attributable either to cutting off the direct supply of blood to the brain, or to disease consequent upon the altered condition of the circulation in that organ. Nearly one-fifth of the recorded cases of the operation in question are found to have exhibited it in a greater or less degree; and the frequency of its occurrence has been singularly overlooked by practical surgeons. Two cases have been forwarded to the committee by Dr Mettawer of Virginia, in which it was observed. In these the vessels were taken up—in one instance, for an anastomosing aneurism of the antrum and nasal cavities, and the other for a case of false aneurism. Both patients had lost large quantities of blood previous to the operations. In each case partial hemiplegia, of the opposite side to the artery which was ligatured, was noticed in a few hours, and was followed by delirium and convulsions. In one of the instances death occurred on the eighth, and in the other on the tenth day. Autopsic examinations showed softening of the medullary substance in the side opposite to that on which the vessel was tied, while the hemisphere corresponding to it was healthy, though pale and bloodless."—*Med. Examiner*, February 1849.

289.—*Iodine Injection in Spina Bifida.* By Dr Brainard.—The patient, a girl aged thirteen years, had a spina bifida at the upper part of the sacrum, measuring nine inches in circumference, and three in height, with thin walls. Dr B. made a puncture with a lancet half-an-inch from the base of the tumour, and inserted a fine trocar, through which he injected a solution of iod. potass. gr. i., with iod. gr. ½ in ʒj. of water, without allowing the serum to escape. The tumour became red, tense, and tender, but these symptoms soon gave place to flabbiness and contraction. In twenty-five days it had diminished to half its size, when a second injection, half the strength of the first, was thrown in, and some weeks afterwards a third, without any unpleasant result. The fluid had been so far absorbed that the bony margins of the opening could be felt.—*Medical Examiner*, February 1849.

290.—*Hydrocele—Report of American Committee on Surgery.*—Dr March of Albany, after drawing off the fluid by a large trocar and canula, instead of injecting, introduces, through the latter, a camel's hair pencil, dipped in a solution of hydriodate of potass, with which he paints the "whole" inner surface of the sac. He has operated in this way in a number of instances with complete and most satisfactory success, and he believes the method to be a prompt and easy one.

It may be a matter of doubt whether the cures by this method resulted from the action of the solution, or from the brushing merely; and also, whether the method be a more prompt and easy one than that in common use—by the injection of iodine.

In the same report is contained the recommendation, by Dr Horner of Philadelphia, of the introduction of a seton, consisting of four or five silk threads, through the tunica vaginalis from the bottom to the top, in addition to the process of injection.

This is done with the view of allowing effused serum to drain off, in order that the opposite surfaces of the membrane may come in contact.

The recommendation seems to be made under the idea that obliteration of the cavity of the tunica vaginalis, by adhesion of its opposite surfaces, is necessary to a permanent cure; and we fear the author is not sufficiently acquainted with the writings of Pott, Earle, and Green in favour of the seton, or of other authors regarding the disagreeable consequences to which it so often gives rise.—*Medical Examiner*, February 1849.

291.—*On Inflammation of the Epiglottis.* By Mr Kesteven.—Inflammation of the epiglottis is not met with except in connection with, or as the result of, inflammation of the larynx, tonsils, or fauces. It is deserving of particular notice as constituting an intractable and alarming complication of these affections. Its occurrence is not so rare but that it is a matter of surprise that writers on systematic medicine should have passed it over in silence.

The chief source of danger in epiglottitis consists in the insuperable difficulty it presents to deglutition, especially of fluids, as must be obvious from the anatomical and physiological relations of the epiglottis. Not only does this circumstance incur

danger to the patient indirectly from want of support, but directly also, from the impediment which it offers to the influence of remedies.

The two following cases present very distinctly all the most important characteristics of the disease, together with an illustration of the advantages to be obtained in point of treatment by a suitable local remedy over the general measures which seemed formerly indicated, and were acted upon :—

Case 1.—T. E., æt. about fifty years, having suffered in the beginning of January of this year, from a common ulcerated sore throat, which yielded to the usual treatment, experienced a severe relapse after premature exposure to cold. The pain and difficulty in swallowing were greatly increased, and in a few hours any attempt to swallow was followed by a sense of suffocation and a violent paroxysm of coughing. On looking into the mouth, the mucous membrane covering the entire palate and fauces was red and swollen, and presented all the characters of erysipelatous inflammation. When the root of the tongue was forcibly depressed, the epiglottis could be seen erect and swollen, in aspect resembling a ripe strawberry. The tongue was furred ; there was great thirst ; the pulse was 100, but soft.

My attention was immediately directed to the state of the epiglottis by the impossibility the patient experienced in swallowing liquids ; this was also a prominent symptom in the case which I subjoin, and constitutes, as already observed, the diagnostic symptom of inflammation of the epiglottis.

The means adopted in the present instance were suggested to me by the perusal of a treatise on diseases of the throat, by Dr Green, of New York. A solution of nitrate of silver, consisting of one drachm of the pure crystals, in an ounce of distilled water, was applied on a small piece of sponge fastened to the end of a whalebone-rod, and freely applied to the epiglottis and fauces. This was done at about eleven o'clock in the forenoon, and was, as may be supposed, attended by a very severe paroxysm of coughing. A blister plaster was also applied to the neck. The patient was strictly enjoined not to attempt to swallow anything.

At eight o'clock in the evening the symptoms were all greatly relieved ; at ten o'clock of the same evening the epiglottis could no longer be seen, and swallowing was unattended by the distressing symptoms which had been witnessed in the morning. A few more applications of the nitrate of silver removed the inflammatory condition of the mucous membrane of the mouth and fauces, and in a short time the patient was convalescent.

Case 2.—Mrs F., æt. thirty-nine, May 1840 : had been suffering for several days under what had been regarded as ordinary sore-throat. She experienced great pain and difficulty in swallowing, especially in attempting to swallow fluids ; the effort produced a violent paroxysm of coughing, and threatened suffocation. By strongly depressing the root of the tongue, the epiglottis could be seen red and greatly swollen. Leeches were applied to the throat, and afterwards a blister, which was kept open for several days. For three days she swallowed absolutely *nothing*—not even her saliva ; during these, and the seven following days, she was supported by enemata of beef-tea, milk, arrow-root, &c. It was not until after six days from my first seeing her that the inflammatory swelling of the epiglottis began to subside, and not until after the expiration of ten days that she could succeed in swallowing. It was then several weeks before she recovered her strength.

Dr Burn, formerly physician to the Westminster Hospital, once saw this patient, who was related to him, with me, and fully concurred in the treatment adopted. Of this he was a competent judge, having given considerable attention to this rather rare form of disease, of which he had met with several cases, and which he recorded in one of the provincial journals.

These two cases are here collated as good examples of the characters of a not usually recognised disease, and as affording instances of the striking advantage derived from the method of treatment recommended by Dr Green in other affections of the throat and larynx. The gratification with which, in a few hours after the application of the solution of nitrate of silver, all the symptoms were found so notably diminished, afforded a forcible contrast to the anxiety with which, nine years before, in the other case, I had for many days watched the patient's state with little hope of ultimately subduing the disease.

I have subsequently found a similar mode of treatment successful in the sore-throat to which clergymen are so particularly obnoxious. I should not hesitate to act upon Dr Green's advice to use the same means in cases of laryngitis or croup not yielding at once to ordinary remedies.—*Lond. Med. Gaz.*, May 4, 1849.

292. —*Case of Foreign Body in the Bronchi.* By Mr Solly.—This case was communicated by Mr Solly at a meeting of the Royal Medical and Chirurgical Society of London, held on April 24th.

A man drew into his windpipe a pebble which he had placed under his tongue, to relieve thirst while working on a railway. The first surgeon who saw him tried to dislodge it, without effect, by making him stand on his head. On his admission into St Thomas's Hospital, his condition was as follows :—When recumbent and entirely at rest, he was free from cough, and unconscious of the presence of the stone, but much moving about caused severe cough, and the feeling as if the stone changed its position. The attempt to lie on the left side produced great dyspnœa—with cough and impending suffocation ; and he referred to the position of the right bronchus, as that occupied by the stone. On examination with the stethoscope, the respiratory sound was loud, but otherwise natural on the left side. On the right there was a loud cooing sound, about four inches below the clavicle, and below this, over about three square inches, the respiratory sound was not audible, although its absence was not constant.

After a delay of a few days he was bound to a table, inverted, and frequently struck by the operator's hand on the chest and back. No effect was produced on the stone, and the dyspnœa and spasmodic cough which it caused, prevented the maintenance of the position beyond forty or fifty seconds. It was then determined to open the trachea, and the patient was again inverted, but without dislodging the stone ; and as the introduction of a long steel probe produced violent spasm, without indicating the position of the foreign body, Mr S. did not think himself justified in employing the forceps. Severe bronchitis followed, which was twice subdued by repeated cupping and the use of mercury ; and the man left the hospital.

Two days afterwards he was seized with a violent fit of coughing, which nearly produced suffocation, and he declared that the stone had, at this time, changed its position. Expectoration was very profuse during his last week, and he had three more convulsive fits shortly before his death. The post-mortem examination revealed extensive pleuritic inflammation, and suppuration in the pleura of the left side, and abscess of the lung on the right. The stone was firmly wedged in one of the first divisions of the left bronchus, but there was no ulceration of the mucous membrane around it, indicating that it had not been long resident there. It was three-fourths of an inch in length, and half an inch in breadth, and weighed 114 grains.

A lengthened discussion followed the reading of this case. It does not appear clearly whether Mr Solly's object in opening the trachea was to enable the foreign body to pass out, or be extracted there, or merely to set the glottis at rest, so as to allow the stone to be ejected by the natural passage (as occurred in the well-known case of Mr Brunel, by Sir B. Brodie), and at the same time to prevent the fatal effect of a prolonged fit of spasm. Messrs Solly and Arnott believed that the cough which occurred on turning up this patient, was not owing to the stone falling against the glottis. Mr B. Phillips alluded to a case which had occurred, soon after Brodie's, in Edinburgh, in the practice of Dr Duncan, where a shilling, which passed into the larynx, was ejected without coughing, on turning up the patient ; and Mr Hewett related a case where a fourpenny piece came up, in a fit of coughing, after inversion of the body had failed to dislodge it. In this case the stethoscope did not indicate the position of the foreign body, but an operation was to have been performed on the day after it was coughed up. Mr Arnott was acquainted with a case in which a coin was lodged in one of the bronchi. Tracheotomy was performed. The forceps gave the body a turn round, when a fit of coughing caused it to be ejected (we presume) by the wound. Mr Erichsen referred to a case, related by Mr Cock, in Guy's Hospital Reports, in which a sixpence passed from the air-passages during sleep. Tracheotomy had not been performed. Mr Coulson thought that in Mr Solly's case the forceps should have been used, and that, although the respiratory passages were involved, chloroform might have been employed to prevent the spasm. —*Medical Times*, May 12, 1849.

293.—*Fracture of the Penis.*—" A young man, native of Canton, applied to Dr Parker for relief. He had been married about eight months. On the nuptial night he met with an insurmountable difficulty in his attempt to establish sexual intercourse with his bride, and in an effort on that occasion, sustained a severe, and, most probably, irreparable injury, which caused great pain. Since that night erection of the penis is limited to about half an inch of its root, the extremity of the organ, with its glans, hanging flaccid.

On examination, a well defined, transverse space, through the corpora cavernosa,

about half-an-inch from the pubis, the site of fracture, was found to separate the penis in two parts.

No attempt was made to remedy this serious misfortune."—*American Journal of the Medical Sciences*, April 1849.

IV.—MIDWIFERY AND DISEASES PECULIAR TO WOMEN.

294.—*Anæsthetic Midwifery*—Dr DENHAM'S *Report*.—Dr Denham, ex-assistant physician to the Dublin Lying-in Hospital, reports upon the use of chloroform in fifty-six cases occurring in that institution. Dr D. assures the Dublin Obstetrical Society, at which he read his report, that at the request of Dr Shekleton, the present master, he conducted his experiments and made his observations "without the slightest intention of making out a case either for or against the use of chloroform,"—a frame of mind especially required in any attempt to remove from this "apple" of obstetric discord the truth-concealing evils which preconceived notions as well as absurd prejudices are so apt to engender.

Dr Denham defines anæsthesia as "a scientific form of intoxication, the effects of which very soon pass away," saving the parturient patient a certain amount of pain, and lessening the shock consequent on the birth of the child—this not only being a present advantage, but an effect which also generally exercises a happy influence on the ultimate recovery of the patient. In speaking of the immediate danger and the remote ill effects which some would have us to believe are always more or less incurred by the administration of chloroform during child-birth, Dr D. remarks, that "it is a remarkable fact, that scarcely one well-authenticated immediately fatal case in midwifery practice has yet been recorded—certainly not one has occurred in this country, nor have we witnessed any very alarming symptoms directly traceable to its effects, when administered for this purpose;" and that, so far as his experience goes in midwifery, he knew of no remote ill effects having occurred either to mother or child.

The cases of natural labour in which chloroform was administered in the Dublin Lying-in Hospital are divided by Dr Denham into—

1st, The ordinary every-day case, in which the labour was short and comparatively easy, and where the patient would have soon got well, whether it was given or not.

2nd, Cases where some interference was necessary, and where the chloroform was given with marked advantage, causing the labour to advance, while at the same time it saved the patient from a very considerable amount of suffering.

3rd, Cases in which chloroform appeared to be, not only useless, but, when persevered in, positively injurious.

Dr D. details a few illustrative cases of natural labour belonging to each of the three foregoing divisions. Of the first he gives a brief outline of seven cases, and which were all "made well," while under the influence of chloroform, with a very happy effect; five of the females denying all consciousness of pain, and several of them being ignorant of the time when their children were born. They all had good recoveries, without a single bad symptom either at the time or subsequently. Of the second division of cases Dr D. found the good effects of chloroform more decidedly evident, and contrasts the doubtful effects of opiates with the more certain, more speedy, and infinitely more efficient, influence of chloroform; the former, which, to insure their effect, must be given in large doses, too generally producing complete suspension of all uterine action, perhaps for hours, while the giving of the latter can be regulated so as only to allay the irritability of fibre, and quiet any unusual suffering, without interfering for any length of time with the progress of labour. In the cases given by Dr D. under this head, the pains, although apparently diminished in frequency and force, yet produced a better effect, and hastened on the labour. Of the third class or variety of natural labours—viz., that in which chloroform appeared to be not only useless, but, when persevered in, positively injurious—several cases are also cited, which certainly prove that this agent occasionally seems to render some tedious labours more tedious still, by suspending for a time uterine action, which, however, is only for a time, "the pains, though weakened at first, coming on more vigorously and with better effect after the use of chloroform than before."

Dr D. thinks that we are taught by the fifteen cases by which he illustrates his remarks on the use of chloroform in natural labour, "that it will be found applicable to many cases, useless in some, and injurious to a few;" and says, in answer to the now common enough question put

to the busy obstetrician, "Do you use chloroform in all cases of natural labour?" "Certainly not; — because many labours are so rapid, and attended with so little pain, that either it is unnecessary, or there is not sufficient time to produce the desired effect." But wisely remarks, "that we have much to learn (apart from all professional notoriety and eclat) as to the cases in which it will be found not only admissible, but really useful; or when to give and how to give, and how much to give, in order to ensure the mitigation of our patient's sufferings, without rashly interfering with the natural progress of natural labour."

Dr D. then gives the result of his experience with chloroform in preternatural, instrumental, and complex labours, and fairly anticipates no difference of opinion as to the gratitude of the profession being justly due to the discoverer of the use of anæsthetic agents in what may be termed the more painful operations in obstetric surgery, more especially turning, of which Dr D. gives ten cases, well testifying to the good effects of chloroform in all such operations. "Such is our experience of chloroform in cases of turning, and so completely is the master of the hospital impressed with the value of it, that he administers it before turning as regularly as he should employ the perforator before extracting with the crotchet."

Crotchet Cases.—Dr D. gives twelve cases in which chloroform was found (as it will be in the great majority of such cases), "a valuable adjunct in rendering the patient more manageable, and the operation more easily performed." In none of Dr D.'s cases did any untoward symptom arise, either at the time of the operation or subsequently, that could be ascribed to the chloroform.

Forceps Cases.—Seventeen cases are noted in which chloroform was administered, and not only were the operations facilitated, but the sufferings of the patients greatly diminished by its use, while the recoveries, on the whole, were above the average in such cases. "A review of the cases," says Dr D., "will, I think, prove to the most sceptical, that chloroform is not only admissible, but highly beneficial, in forceps cases."

Convulsion Cases.—In three cases of convulsions, chloroform was given, not to prevent or put a stop to the fits, but simply for the purpose of mitigating the sufferings of the patients, or advancing their labours. As to the question of safety in giving an agent like chloroform in puerperal convulsions, Dr D. says, that in his cases it had nothing to do with the inducing of the convulsions, nor did he ever meet with a case where such a result could be attributed to chloroform, which, although it did not put a stop to the fits, certainly served, in the first instance, to control them, at least for a time. On this important point (the administration of chloroform in puerperal convulsions), Dr D.'s experience is too limited to enable him to speak decidedly; he therefore prudently neither recommends it as a preventative nor a cure, but, we think, properly remarks, that if there was no organic disease present, nor any determination to the head in the intervals, no fear need be experienced in administering chloroform where circumstances seemed to indicate its use, or when called upon to perform the operation of turning, or delivering by instruments in a case complicated with convulsions.

Dr Denham, in the course of his excellent remarks, wisely eschews subscribing to the opinions of those who advocate extreme views, either for or against the use of chloroform in labour, he having witnessed enough to induce him to disregard the timid cry of "fearful results," and at the same time practically learned the lesson, that we are not entitled to expect from the use of this "sweet oblivious antidote" more than we are from any other single agent,—"a never failing, ever blessed" result. "A middle course will be found the safest." The following are the conclusions borne out by the history and progress of the cases reported and commented upon:—

1st, That chloroform is a most valuable agent in all turning, forceps, and crotchet cases.

2dly. In some cases of natural or difficult labour, it is useful in relieving pain, and in relieving the soft parts, and thereby advancing the labour.

3dly. If given in large quantities, or if persevered in too long, it puts a stop to all muscular action. This is contrary to the opinion of Dubois, who states, that it never destroys the uterine contractions, or those of the abdominal muscles.

4thly. In such cases the pains generally return with increased force when the chloroform is discontinued.

5thly. It does not relax the perineum more than the other soft parts. Dubois states that it does.

6thly. When organic disease does not contra-indicate its use, there is little danger to be apprehended from it in midwifery practice.

7thly. Chloroform may be administered

to such a degree as not to take away reason and consciousness, and yet to secure the patient immunity from pain.—*Dublin Quarterly Journal of Medical Science*, August 1849.

Chloroform theoretically and practically considered.—"In order to secure to the patient *complete immunity from pain*, chloroform must be administered to such a degree as to take away reason and consciousness, and, when so administered, it is liable to induce apoplectic stertor, convulsions, partial paralysis, impairment of uterine contractile energy, and other still more formidable consequences."— Dr Montgomery's (non-illustrated) "Objections," *Dublin Quarterly Journal of Medical Science*, May 1849.

"I must say that I have never met with a single untoward circumstance affecting the health or life of either mother or child, that would in the slightest degree deter me from giving chloroform when I thought it desirable or necessary. I have never witnessed any of the dreadful evils described by some writers as consequent upon its use. I have never seen the blood blackened, or the brain poisoned; nor has it ever in my hands, induced convulsions, partial paralysis, or other still more formidable consequences."— Dr Denham's (illustrated) "Report," *Dublin Quarterly Journal of Medical Science*, August 1849.

Ergot of Rye with Chloroform.—In the Report of Dr Denham on the use of chloroform, the combining ergot with chloroform is spoken of as safe and judicious when circumstances call for it; the instances quoted in which the conjoint use of these were tried, prove their great value in occasionally producing the best results in cases where the pains are painfully inefficient. Professor Beatty confirms the value of the combination in a report of cases read before the Dublin Obstetric Society; and we can point to several instances where the practice was adopted with much apparent effect.

Apparatus for the purpose of administering Chloroform.—Dr Fleming, at the conclusion of Dr Denham's report, exhibited and described to the Dublin Obstetric Society, a chloroform apparatus, which he had used for some months past. This consists of a small capsule of glass, with an overlapping edge. The capsule is circular, and about two and a-half inches in diameter. Within it is placed a small slice of sponge, which, when the apparatus is about to be made use of, is saturated with chloroform; and this he styles the "Chloroform Sponge." Round the neck of the glass a large cup-like sponge, hollowed out, and so shaped as to cover the nose and mouth, is attached. Through the pores of this sponge the atmospheric air is admitted. Before use both sponges are damped with water, and then the proper measure of chloroform is poured upon the small flat sponge contained within the capsule.—*Dublin Journal*, August 1849.

[We have for some time past avoided expressing any strong opinion on the *quæstio vexata* of the use of anæsthetics in midwifery, believing that the records of experience on this subject would alone be listened to in the end by the profession, and would both fix insensibly the limits to which chloroform, or any similar agent, ought to be used, and overcome the prejudices of those who objected, on *a priori* grounds, to its employment. Nor have we been disappointed in this expectation. We believe we may say, that the history of anæsthetic midwifery, for the last twelve months, has been one of uninterrupted, though not unresisted progress, and that there is no instance on record of any one who had used this agent at all extensively in midwifery, renouncing its employment through experience of any of those fears or actual casualties, which have restrained the hands of so many well-meaning opponents, and furnished material also for the calumnies of interested and unscrupulous detractors. On the other hand, we have had the most decided testimonies, from men of the highest character, and of the largest experience in its use, whether in America, on the Continent, or in this country, to the effect that its benefits are incalculable, and its dangers, when in proper hands, insignificant. Dr Channing of Boston, who has published the result of 581 cases of etherization in child-birth (including many where chloroform was used), declares as follows:—"It is no part of the purpose of the following lecture, to teach, or to leave it to be inferred, that untoward results have not followed, or will not again follow, etherization. But I can, and do say, that I have not met with an untoward result in any case of midwifery in which etherization has been induced, which, by any violence or ingenuity of explication, can be ascribed to this state as its cause. I have met with no record of such."—(*Treatise on Etherization in Child-birth*, Boston, 1848, p. 28.) And we have now, from Dr Denham, a testimony of the most unequivocal kind in favour of anæsthetic midwifery, drawn from a large hospital experience, and detailed with the utmost impartiality, in a city where, according to Dr Montgomery's statement a few months before, "this mode of manag-

ing natural labour has, as yet, found but little favour; and, among the better educated class of women, the great majority are, in general, decidedly averse to it."

The most important, both from character and position, of the late opponents to the use of chloroform, or other anæsthetics, in natural labour, is unquestionably Dr Montgomery, the Professor of Midwifery to the King and Queen's College of Physicians in Ireland. In the May number of the *Dublin Journal of Medical Science*, Dr Montgomery publishes his opinions on chloroform, as an obstetrical agent, under the title of "*Objections to the indiscriminate Administration of Anæsthetic Agents in Midwifery.*" Unlike Dr Denham, however, Dr Montgomery *reports no cases in illustration* of the cogency of his objections. These objections are entirely of the physiological, religious, personal, or other *a priori* kind, and have been so completely exhausted by previous writers, and so often answered by Dr Simpson and others, that we are most unwilling to recur to subjects in which our voice could do no good, seeing that we believe those who are still unsettled or unconvinced, can only be taught by the resistless teachings of accumulated facts, and the gradual, but sure, revolution of public opinion. We have carefully looked over Dr Montgomery's "Objections," with the view of selecting, for our practical readers, the required illustrative proof, but finding nothing tangible, in the shape of cases or facts, we are constrained to view them in their real light, that of *mere matter of opinion*. We should, however, be dealing unfairly with the learned Professor, did we here withhold his acknowledgment of the "value and utility of chloroform in obstetric operations, such as instrumental delivery, turning a child in utero, or the removal of a retained placenta, and also in some peculiar circumstances of natural labour, independent of any operation,"—a *saving clause* which gives a practical value to our author's "Objections" which they do not otherwise by any means possess, and which, while it may tend in some degree to mitigate the Doctor's strictures upon those whom he believes to have acted with a "zeal not according to knowledge," contrasts strangely with the earnestness with which he warns "the young and inexperienced against being dazzled by a delusion or seduced by an *ignis fatuus*." Professor Montgomery, who so "sincerely rejoices that we (in Dublin) do not too readily run, with school-boy impetuosity, after every butterfly-theory which, with gaudy wings, is seen fluttering through its hour of evanescent life in our social atmosphere," ought, we think, himself to remember, that the "wisdom" which, in a matter like this, most readily "illumines with its brightness the darkness of surrounding nations," is that of experience; and that, therefore, if he desires to enlighten his obstetrical brethren on such subjects as the administration of chloroform in labour, he must favour them with a recital of the nature, progress, and result of the cases in which he has used it, for it is by *practical* testimony alone that he need ever expect to "convince the understanding," if not stay the hand, of those who may be "so bold or rash, so enthusiastic, or so heedless of consequences, as to keep every woman confided to their care in a state of stupefaction and unconsciousness, with her blood blackened and her brain poisoned, from the beginning to the end of labour."

Mr G. T. Gream stands almost alone among the objectors to anæsthetics, in professing to bring forward *facts* in support of his views. In a late pamphlet on the "Misapplication of anæsthesia in childbirth, *exemplified by facts*," he has thought fit to revive a number of old objections, and advance some new ones, backed by a large amount of *anonymous* and *strictly private* testimony, which, we must freely confess, is of a nature to inspire not a little astonishment among those who know the use of chloroform in midwifery, either from personal experience, or from the testimonies of its friends, or *open* enemies. We have no taste for the severe criticism, which this pamphlet merits, and we only allude to it to assure Mr Gream, that we shall not think it necessary to consider his charges until they are brought forward in the form of *entire documents*, instead of extracts filtered through a hostile medium; and until we see them authenticated in such a manner as to render them admissible in evidence on this subject. The advocates of chloroform have never concealed the sources of their evidence; the chances of "obloquy," and of such evil-speaking as Mr Gream and others delight to indulge in, have not frightened them from the course which a sense of propriety and professional honour dictate; and we shall not demand less of those who bring forward evidence on the other side, or who set themselves up as self-constituted judges of the character and conduct of others, it being their "nature's *plague*," as Mr Gream himself confesses, "to spy into (*fancied*) abuses."

Dr Channing, like Mr Gream, sent circulars with the view of procuring information in reference to this subject. "The object of the circular," says he, "was to learn what had been *the whole result* of etherization so far as it has been employed in midwifery among ourselves."—(*Op. Cit.*, p. 4.) *Unlike* Mr Gream, however, Dr C. has published both sides of the information received, and given the world the means of judging of its value by affixing to it the names of its contributors, who can, in this manner, recognise their own testimony, and feel assured of its being rightly dealt with. Let Mr Gream go and do likewise. Till then, we have nothing further to say to him. We marvel only that certain portions of the medical press should have abetted him in his ill-advised and most preposterous conduct. To encourage these anonymous detractions, and to use them in opposition to the accredited documentary evidence produced by Drs Simpson and Channing, appears to us not less opposed to every canon of true or just criticism, than would be the attempt to subvert the truths of history by the vague and unsatisfactory data of oral tradition. We protest against such proceedings, and we call upon all who, by their position, can aid in the preservation of an unblemished medical literature, to repeat the protest.]

V.—MATERIA MEDICA AND THERAPEUTICS.

295.—*On the Purgative Properties of the Oils obtained from Plants indigenous in the Antilles.* By W. HAMILTON, M.B.—"The *Argemone Mexicana*, yellow thistle, or prickly poppy, an herbaceous plant, belonging to the *Papaveraceæ*, is an annual common in Nevis, St Kitts, and most of the West Indian islands, where it grows upon rubbish and by roadsides, yielding its large golden blossoms, and capsules filled with multitudinous globular scrobiculated seeds, at almost every period of the year. These seeds, gathered at the proper period of maturity, yield to pressure a bland purgative oil, possessing anodyne and narcotic qualities, which render it a most desirable addition to our anti-choleraic remedies, and one to which I have repeatedly, but hitherto I regret to say fruitlessly, endeavoured to direct the attention of the medical world. The oil is occasionally to be met with among the negroes, who ask a quarter of a dollar, or about fourteen pence sterling, for a small phial of it, hardly containing more than from one to two ounces, and most frequently adulterated with the oil obtained by boiling or expression from the seeds of the *Jatropha curcas*, or common physic nut, which communicates to it drastic and emetic qualities that deteriorate its character and impair its utility. When in a state of purity, however, the materia medica hardly presents a more valuable purgative, or one which answers so many apparently conflicting indications at one and the same time. In that excruciating complaint, so common in all climates, colic, arising from constipation of the bowels, thirty drops of this oil, taken upon a lump of sugar, allay the pain as if by magic, throw the patient into a profound and refreshing sleep, and after a little time produce a copious and painless evacuation of the bowels. The minuteness of the requisite dose, the instantaneousness of the relief it affords, and the mild and gentle though effectual action it produces in the intestinal canal, seem peculiarly to adapt it for cases of cholera, superseding the use of chloroform and opium for subduing the cramps, and mitigating the more urgent symptoms. The oil, I conceive, may be most easily and copiously obtained from the recently gathered seeds in the places which produce the plant, and not from those which are over-ripe, or which have become dry by long keeping. Cultivation, and the appliances of horticultural skill, would no doubt improve the quality and increase the quantity of the produce, while adulteration should be guarded against with the utmost vigilance."

[Dr Bowerbank, of Jamaica, informs us that he has for many years employed an emulsion of the seeds of the *Argemone Mexicana*, made of one drachm of the seeds, eight ounces of water, and a sufficiency of sugar. In the dose of a wine-glassful every second hour, this preparation does not purge, but acts efficiently as an anti-spasmodic in asthma. It promotes expectoration, and sometimes excites vomiting. Dr B. has also made some experiments with the inspissated juice of this plant, and has found it inert—a result opposed to that which a consideration of the botanical affinities of the *Argemone* had led us to anticipate.]

"The *Jatropha curcas*, or common physic-nut, is a plant of the natural order *Euphorbiaceæ*, common in all the hedges in Nevis and St Kitts, where it attains a height of from six to seven feet, and may be found in flower and fruit throughout the year.

The seeds, which are nearly of the same size with those of the *Ricinus communis*, yield on pressure an oil, which, in the crude state in which it is usually obtained, is powerfully drastic and emetic. But, from what some writers state, it would appear that the acrid property of the oil arises from some deleterious principle resident in the cotyledon leaves, which divide the kernel into two equal parts; and the removal of which, previous to the operation of pressing, would divest the oil of its objectionable qualities, and render it as bland and efficacious in its operation as that obtained from the seeds of the *Argemone*. And I am the more inclined to this opinion from the resemblance, in many of its medicinal properties, which exists between the milky juice of both plants; and from the powerfully anti-spasmodic effects of a decoction of the leaves, which the celebrated Dr Wright (of Jamaica) assures us "is often used with advantage in spasmodic bellyache (colic) attended with vomiting, sitting easier on the stomach than anything else, and seldom failing to produce a discharge by stool." The usual dose of the oil is a table-spoonful, or about half an ounce. From the abundance of the physic nut, the facility with which it is propagated, and the abundance of oil which it affords, the *Jatropha curcas* is eminently entitled to the attention of those philanthropists who would raise our West Indian colonies from their present state of suicidal prostration, by the cultivation of their natural capabilities, rather than by the horrors of immigration, the resuscitation of monopoly, or the oppression of the Creole peasantry."

[From numerous experiments with the oil of the *Jatropha curcas*, Dr Christison found that one sample expressed from Barbadoes seeds acted precisely like castor oil, in the dose of ten, fifteen, and twenty drops; but that another from Jamaica seeds sometimes caused the same severe sickness and watery evacuations as croton oil, and at other times was inert in the dose of thirty drops.—*Dispensatory*, 2nd edit., p. 794. Dr Bowerbank's experience of the use of this oil accords with Dr Christison's observations; and we are informed by Dr B. that the same irregularity characterises the purgative action of the oil of the seeds of the *Hura crepitans*.]

"The *Hura crepitans*, or sand-box tree, is a small tree, remarkable for the extreme brittleness of its timber and the slowness of its growth. It belongs to the natural order *Euphorbiaceæ* of De Candolle, and attains a height of about thirty feet, with spreading branches, which afford an agreeable shelter from the fervid heat of the sun, to a distance of sixty feet frequently in diameter; but even the largest of these branches are so singularly brittle as to snap with a sudden gust of wind, or even a loud peal of thunder. It thrives best in a deep rich soil, and in the vicinity of water, and is cultivated, for the sake of its shade, near the house of the planters.

"The seeds, which are contained in the cells of an extremely compressed circular capsule, marked externally by deep furrows, corresponding to the number of the cells and seeds within, possess, when recent, a strongly emetico-cathartic quality, insomuch that the new comer, who, tempted by the agreeable flavour of the kernel, imprudently eats even so much as a single seed, is usually attacked with a severe vomiting and purging within a very few minutes after. This effect may be counteracted, as far as the emetic operation is concerned, as an American captain, whom I met in the West Indies, informed me, by splitting the kernels in two, and carefully removing the cotyledon leaves, in which the emetic principle appears wholly to reside. Thus prepared, he constantly carried them about him, and found four or five eaten in the morning relieve his bowels without sickness, pain, or griping. The oil obtained from the recent seeds, similarly prepared, would most probably be found a valuable addition to the purgatives of our materia medica. With age, the seeds become almost totally inert. I have myself eaten several with the most perfect impunity; but I should not advise others to act with equal imprudence."—*Phar. Journ.*, Sept. 1849.

296.—*On Collodium Cantharidale.* By F. Ilisch.—According to Dr Ilisch of St Petersburg, collodion in combination with cantharidin, is in many cases well adapted to act as a vesicant, supplying not only the place of the *emplastrum cantharidis*, but affording even the advantage of dispensing with linen and leather. It is particularly useful in cases where a strong vesicant is to be applied to a part of the body where it can be easily disturbed by the movements of the patient, or where the irritability of the latter prevents the undisturbed position of the plaster.

For its application, nothing is required but to paint the part with it by means of a brush. If, after the collodium has been thus applied and dried, which occurs within about half a minute, some part of the skin is found not to be perfectly covered by it, the application is to be re-

peated; and the effect is quicker and safer if the part be covered with lard. The collodion operates as speedily as blister plaster, and possesses the advantage of not staining the linen.

Preparation.—One pound of coarsely powdered cantharides is subjected to the action of one pound of sulphuric ether and three ounces of acetic ether, in Mohr's apparatus; and the liquid is allowed to percolate the cantharides as long as it is coloured, by which a saturated ethereal solution of cantharides, together with some coloured animal fat, is obtained. In two ounces of this liquid, twenty-five grains of gun-cotton are dissolved. This is the easiest method, and can be performed with facility in the laboratory of any apothecary. The process is more complicated and expensive if twenty grains of pure cantharidin and twenty-five grains of gun-cotton be dissolved in one ounce and a-half of sulphuric ether and half an ounce of acetic ether.

The *collodium cantharidale* can be preserved without injury in well-closed glasses, and is, for that reason, better adapted than any other vesicant for military hospitals, and for diseases which befal the soldier on his march.

Although the *collodium cantharidale* is much more expensive than the blistering plaster, there is a great saving in its use; for one drachm and a half of it are equal to half an ounce of the latter. Its efficacy has been substantiated by several experiments made by Balbiani and Boose.—*Pharm. Central Blatt.*, and *Pharm. Jour.*, September 1849.

[Two specimens of the *collodium cantharidale* have been prepared for us by Messrs Duncan and Flockhart of this city, in one of which acetic ether was the solvent medium employed; in the other, sulphuric ether. From some trials of our own, and others made by Dr J. W. Begbie, in the Royal Infirmary, it has been found that these preparations act efficiently as vesicants when applied in a layer of considerable thickness. The preparation made with acetic ether is the more certain vesicant, but it is inferior to the other in not forming a dry membrane. It is not, as stated above, an economical preparation.]

297.—*On Rhine Wines.*—"The following results of experiments, performed by Geisser with the most scrupulous attention, are communicated by Liebig (*Ann. d. Chem. und. Pharm.*, lxv. 356), and accompanied by some very important observations.

"The various sorts of Rhine wine were all of the growth of the year 1822, and are here enumerated according to their value in a descending scale.

Place of Growth.	Sort of Grapes.	Specific Gravity.	100 Parts yielded	
			Absolute Alcohol.	Dry Residue.
Steinberg	Riesling	1·0025	10·87	9·94
Rudesheim	Orleans	1·0025	12·65	5·39
Markobrunn	Riesling	0·9985	11·60	5·10
Geisenheim	...	0·9935	12·60	3·05
Dirnheim	...	0·9925	9·84	2·18
Weinheim, Hubberg	...	0·9925	11·70	2·18
Worms, Liebfrauenmilch	...	0·9930	10·62	2·27
Eisler, Kleinberger	...	...	11·90	...
Wiesbaden	...	0·9950	10·83	2·78
Neroberg	...			
Wiesloch	...	0·9945	5·83	2·48

"From the known prices of these wines, it is obvious that the proportion of alcohol, although one factor, in determining the value of a wine, is not the only absolute one, nor does it stand in any fixed relation to the commercial value of the wine. It is remarkable that the finest sorts of wine contain a much greater proportion of solid substances in solution than the inferior sorts; and that the weight of the residue which the Rhenish wines yield on evaporation, offers a safer criterion for determining their commercial value than the proportion of alcohol. [The same is also the case with wines from the Palatinate: Herxheimer Riesling of 1844 is sold at 24 kr. the bottle; and Deidesheimer and Forster-Riesling, of the same year, at 33 to 36 kr. per bottle; after evaporation, there was found in the first only 8·7 parts of solid substances in 100 parts. This so-called extract of wine is yellowish brown; at 212° Fah. it is still viscid, very hygroscopic in the air, and of a very acid taste; besides supertartrate of potash, it contains a free vegetable acid, which is analogous to citric acid. Small proportions of sulphuric and phosphoric acids are neutralised by potash, lime, magnesia, ammonia, and a small quantity of protoxide of iron. If the free acid of this wine be saturated by potash, the liquid evaporated, and a mixture of sulphuric acid and alcohol dropped on the residue, which is then heated, a peculiar agreeable smell develops itself, almost like that of

Malaga wine, but no smell of acetic ether. —*Buchner.*] These solids disguise the acids, take off the acrid taste, and at the same time impart body, mellowness, and oilyness. Among the extractive matters of new wines are sugar, which gradually disappears by keeping; and also some imperfectly known gummy substances, which become brownish when the wine is submitted to evaporation. The presence of these in wine appears chiefly to be determined by the soil, and the condition and locality of the vineyard; and it is obvious that the qualities dependent upon these extractive matters cannot be replaced by sugar.

"It is of importance that the free acid be not removed before the fermentation, because on its presence during this process, as well as during the stoving, depend the taste and principal qualities of the wine. If the acid of the wine must be neutralised prior to fermentation, this process is not prevented, but a fermented liquid is obtained which has no longer any resemblance to wine, and which, even by keeping, never recovers the odour and taste it ought to possess.

"In France an artificial, and therefore fugitive, bouquet is produced, especially in Bordeaux wines, by allowing the fermentation of the unpressed grapes to proceed at a rather high temperature, and under but very slightly limited access of air. In most Bordeaux wines this bouquet is acetic ether; but it is not unlikely that, under these circumstances, butyric ether is also produced. The want of free acid, as may easily be seen, is here supplied by means which promote the generation of acid."—*Phar. Journ.*, Sept. 1849.

Dr Christison observes, that in addition to the bitartrate of potash, "The other solid contents of wine are small in amount, except in sweet wines. The sugar of sweet wines is generally abundant, makes them soon pall on the taste, and renders them little available in medical practice. The resino-mucilaginous extract, colouring matter, and tannin—the last two of which are derived from the husk of the grape, and occur principally in red wines—are never abundant, and diminish slowly with age. The total solid contents are scanty in every wine, except the sweet kinds. In port and sherry, when fit for drinking, the solids seldom exceed 3 per cent.; in Bordeaux wine they amount to 2½; and in Hock and Moselle to 2 per cent. only."—*Dispensatory*, 2nd edit., p. 943.

298.—*How to distinguish between True and Spurious Valerianates.*—Within the last few years compounds of valerianic acid with oxide of iron, with oxide of zinc, and with quina, have been introduced into medical practice as efficacious remedies, especially in hysteria, and other affections of the nervous and uterine system, and in fevers. A good deal of attention has been devoted by practical chemists to the preparation of these valerianates, and several processes for making them have been published. The valerianates, however, have always, and necessarily, been expensive preparations, yet the use of them has been gradually extended in consequence of the testimony borne to their great efficacy. Increased demand led to competition in the supply, which has recently resulted in the adoption, by some manufacturers, of a system of fraudulent substitutions that would have speedily brought a valuable set of remedies into disrepute, had not the fraudulent practice been detected.

Citrate and tartrate of iron, flavoured with a few drops of oil of valerian, has been extensively supplied for valerianate of iron; and acetate of zinc, flavoured in the same way, has been substituted for valerianate of zinc; and these spurious compounds have been sold at prices which, although defying competition on the part of the genuine valerianates, have, nevertheless, been twenty or thirty times greater than the commercial value of the substituted articles. For valerianate of quina the disulphate of that base, with a little oil of valerian to disguise it, has been in like manner substituted.

Thus compounds have been supplied for the three medicinal valerianates, which have not contained a particle of the most important of the constituent which should have been present, namely, the valerianic acid.

Such being the nature of the frauds which have been practised, we have no doubt upon many of our readers, we proceed to point out the means of detecting them.

1. *The true valerianates* have a sour, disagreeable, and very persistent, although not powerful smell, which is essentially different from that of oil of valerian.

1. *The spurious imitations*, being flavoured with oil of valerian, smell strongly of that substance.

2. *The true valerianate of iron* is almost entirely insoluble in water; and the valerianate of quina fuses into oily globules in boiling water, and dissolves with difficulty. They are both freely soluble in spirit.

2. *The spurious valerianate of iron* is perfectly soluble in water, especially when

aided with a little heat; it is insoluble in spirit. *The spurious valerianate of quina* is soluble in about thirty parts of boiling water, and, as the solution cools, it is deposited in acicular crystals, which have the bitter taste and other characters of disulphate of quina.

3. *The true valerianates*, when mixed with a little diluted hydrochloric acid, are decomposed, and the valerianic acid being set free, rises like oil to the surface of the liquid. To get this character, it is necessary to operate upon from five to ten grains of the specimen, and to avoid the use of too much of the diluted acid, as valerianic acid is soluble in about thirty parts of water. The liberated valerianic acid has the sour, disagreeable, and very persistent smell, which, to a slight extent, is perceived in its salts, but it is readily distinguished from that of oil of valerian.

3. *The spurious valerianates*, when added to water, will generally yield a thin film of oil, which floats on the surface, and is easily detected as oil of valerian. On heating the liquid this oil is driven off, without otherwise decomposing the salt, and no further indication of valerian will afterwards be obtained. On treating them with diluted hydrochloric acid, there is no valerianic acid set free.

4. *The true valerianates*, when mixed with a little proof spirit, and one-fourth the volume of oil of vitriol is then carefully added, will yield valerianic ether, which is recognised by its agreeable fruity smell, somewhat resembling that of the pine-apple. This ether can hardly be distinguished in smell from butyric ether.

4. *The spurious valerianates* yield no valerianic ether; but the *spurious valerianate of zinc*, when treated as above, yields acetic ether, which is easily detected.

The foregoing tests are sufficient to distinguish the true valerianates from the spurious substitutes above-mentioned, but there is reason to believe that other substitutions have been practised, although not so extensively. We have met with a specimen of so-called valerianate of iron, which is evidently not what its name indicates, and yet it contains neither citrate, tartrate, nor acetate. It is in the form of a brown powder, insoluble in water and in spirit. It smells of valerianic acid, but on being decomposed with hydrochloric or sulphuric acid, yields no appreciable quantity of the oily product. We have not had time to submit this specimen to a careful examination, but it is easily distinguished from the true valerianate of iron by its being insoluble in spirit, while the latter dissolves freely in this menstrumum, even without the application of heat. This suspected specimen is also distinguished from the genuine by its behaviour when heated in a platinum crucible.

The true valerianate, if carefully heated, fuses, gives off valerianic acid undecomposed, then as the heat is increased, burns with a luminous flame, and emits a very offensive odour.

The suspected specimen does not fuse or give off any appreciable quantity of valerianic acid. The vapour does not readily inflame, and the odour emitted is not offensive.

The residue of oxide of iron is the same in both specimens, namely, twenty-five per cent., and the acid originally present is organic.

Where mere adulteration is practised, the detection of the fraud is much more difficult than it is in the cases to which we have hitherto alluded, the cupidity of the manufacturer having fortunately, in these cases, blinded his discretion, so that a speedy exposure of the practice was inevitable.

About three years ago, as we find from the "Journal de Pharmacie," much of the valerianate of zinc met with in Paris was found to have been made with butyric acid, instead of valerianic acid. The butyrate thus substituted was of a more beautiful and crystalline appearance than the true valerianate, but it did not essentially differ in character, and the detection of the fraud, by satisfactory tests, was not easily accomplished. A paper was published on the subject by Messrs Laroque and Huraut, in which they recommend the use of a concentrated solution of acetate of copper for distinguishing valerianic from butyric acid. In the use of this test, however, it is necessary, in the first place, to eliminate the acid by adding sulphuric acid to the salt and separating the volatile acid by distillation. When butyric acid is added to the concentrated solution of acetate of copper, a bluish white precipitate is immediately formed; but on adding valerianic acid in like manner, there is no immediate appearance of precipitation or turbidity of the liquid, but on shaking it, oily drops, of a greenish colour, separate, partly rising to the surface and adhering to the sides of the vessel, and partly falling to the bottom. These oily globules consist of anhydrous valerianate of copper, which retains this condition sometimes twenty minutes or more, but it ultimately becomes hydrated, and then forms a bluish green crystalline powder.—*Ph. J.*, June 1849.

MONTHLY RETROSPECT

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CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

299.—*Transplantation of Testicles.*—In Müller's Archives is a most interesting paper with this title, by Professor Berthold, of Gottingen:—

A series of comparative experiments were made by him: he castrated six young cocks, of two and three months old, leaving the wattles, combs, and spurs untouched.

From two of them (*a* and *d*) he removed both testicles. Thenceforth they took on the nature of capons, fighting very seldom and feebly, and giving the well-known monotonous capon crow. Their combs and wattles were pale, and little developed, and the head remained small. About five months after, they were killed; a small scar occupied the place of each testicle, and the seminal duct had degenerated to a mere thread.

From two others (*b* and *e*), only one testicle was removed, the other left in the belly. In two others (*c* and *f*), both testicles were excised, but one belonging to *c* was transplanted into the belly of *f*, and, *vice versa*, one of its testicles transplanted into *c;* thrust amongst the bowels, and left there.

All four retained the characters of uncastrated fowls; they crowed lustily; frequently fought with each other, and with other young cocks, and exhibited the ordinary inclination for the hens. Their combs and wattles developed like those of others.

The cock *b* was killed two months after;

its single testicle was in the ordinary place, but had hypertrophied, and, on section, a white fluid exuded, which contained cells, but no spermatozoa.

On the same day, the remaining three had their well-developed comb and wattles excised. The cock *e*, at the same time, was deprived of the remaining testicle; and *c* and *f* examined in the ordinary situation in vain for their transplanted organ.

The now fully castrated *e* never grew comb or wattles, it ceased to concern itself about the hens, and fought no more with its own sex. *C* and *f*, however, reproduced both comb and wattles, and preserved their ordinary chivalrous demeanour. They were killed six months after the transplantation. In *c* the testicle was found behind the colon and between the ends of the cœca. In *f* it was nearer their middle, but otherwise in the same situation. They were of large size, and received large branches of the mesenteric vessels, which passed towards them, entered, and then took the ordinary course, in relation to their seminal tubes. On incising them, a normal seminal fluid exuded with the ordinary cells and spermatozoa.

The author concludes:—

1. That the testicles are transplantable, and reunite with living tissues after their separation from the body, not only at their ordinary site, but in an abnormal situation.

2. Like the grafted tree, the organ on this new place still preserves its specific properties, and secretes its specific fluid.

3. It is well known that after a division a re-union of nerves restores sensation and movement. And it follows, from these experiments, that as the re-union could not have been one of those originally divided, there are no specific seminal nerves; that nerves only are requisite—a strong, nay, almost a fatal objection to the theory, that would constitute the sympathetic a trophic nerve, or nerve in itself specifically organised with reference to nutrition.—*Med. Times*, July 21, 1849.

300.—*On Luminosity of the Human Body.* By Dr Schneider.—Dr Schneider is acquainted with a strong, healthy, dark-haired Capuchin monk, who, on removing his head-dress, always induces a number of shining, crackling sparks from the hairy scalp. Fearing that the large quantity of the good beer he was in the habit of taking had something to do with this, he diminished his potations, and the appearance also diminished somewhat, though it did not cease entirely, continuing still perceptible during an illness which prevented his taking beer for three weeks. In another case, luminous sparks were given out whenever the patient passed his urine. Nasse has collected various examples of this preternatural illumination. Marsh relates two cases, in which the heads of phthisical patients were surrounded by phosphoric light. Kaster relates one, in which light was seen in the perspiration and body-linen after violent exertion. Jurine, Guyton, and Driessen observed luminous urine after prior exertion in healthy persons; and Nasse met with it in a phthisical patient. Percy and Stokes saw a bright light emitted from a cancerous ulcer; and the breath of spirit-drinkers, it is well-known, emits it.

In the opinion of Nasse, this appearance chiefly depends upon impeded respiration, and a diminished quantity of oxygen gaining access to the lungs. This is the case with the phthisical, as also with the healthy, when a plethoric state of the lungs is induced by great exertion. Spirit-drinkers, owing to the changes wrought in the blood by alcohol, are in an analogous position to the phthisical; and it is in such subjects that spontaneous combustion generally occurs. The congestion of parts with dark blood, as in the case of ulcers, may give rise to it; as also the sweat of an over-heated skin, the urine of persons suffering from syphilis, or other cause of diminished strength. Animals that normally give rise to the phenomenon of illumination are all low down in the scale, and possess but imperfect respiratory apparatus. Much light-producing material enters into the composition of the body; and although, in the normal conditions, phosphorus, sulphur, and carbon are expelled from the frame, combined with acids, by the kidneys, yet, as in diseased states, we may find carbon in the bronchial glands, and sulphur in the abdominal flatus, so may we suppose phosphorus may sometimes remain uncombined with oxygen. Such escape of unburnt phosphorus would be favoured by whatever limits the respiratory powers and diminishes the quantity of free oxygen in the blood. In experiments upon dogs, it has been found that phosphorus, mixed with oil and injected into the blood, if time be not given it to combine with the oxygen of the body, escapes unburned from the lungs.—*Casper's Wochenschrift*, No. 15, and *Med. Chir. Rev.*, October 1849.

301.—*The Recurrent Laryngeal Nerve.*—Some cases illustrate more strikingly than others the explanation which anatomy affords of many anomalous symptoms. The following case, related by Dr C. H. Kingdon, of Exeter, in the *Pro-*

vincial Journal for September 5, is interesting, although by no means unprecedented.

A man, aged thirty-six, had, among some obscure symptoms, difficulty in swallowing, with the feeling of something in his throat, some difficulty in breathing, with occasional cough, and the voice had become unnatural, being feeble, yet with great distinctness of intonation. There was also oppression about the chest. Soon after these symptoms were noted, he was suddenly seized with a sense of suffocation, as if strangulated. Tracheotomy was thought of, but not performed. An unusual pulsation or movement was noticed in the right supra-clavicular region. The attacks of spasm abated and recurred alternately for thirty-six hours, when the patient died.

On examination, the œsophagus, pharynx, larynx, and trachea were found perfectly healthy. The primary bronchi were red and dry. An aneurism of the aorta was now discovered. It opened between the origin of the innominata and left subclavian branches, and was of the size of a hen's egg. Careful dissection discovered the recurrent or motor laryngeal nerve passing immediately under the body of the tumour, and thus solved the "difficulty" of the case.

302.—*Chloride of Zinc as a Preservative of Animal Matter.*—Official reports (of which extracts appeared in the *Medical Times* for June 23) have lately been published regarding the efficacy of Sir W. Burnett's solution of the above salt in preventing and arresting putrefaction, and destroying noxious effluvia. It has now been extensively used in the navy; and is found efficient in preserving timber, canvass, and cordage, and in destroying effluvia, so as to have a strikingly salutary effect on the health of the crew, as appeared from a fair comparative experiment.

It has also been employed for anatomical purposes; and there are testimonials from Dr Sharpey and Mr Bowman, certifying as to its efficacy and usefulness when employed for injecting subjects, with a view to their longer preservation, and also in preserving permanently the different animal textures. It is absolutely necessary to use some preservative fluid during the summer months, if it is wished to dissect satisfactorily; and after having used a solution of chloride of zinc for the last three years, we can confirm the above testimony. It preserves the body much longer, and also checks decomposition which has already begun, and destroys effluvium. It does not destroy colour more than spirit does, nor does it take the edge off the knives, as all the otherwise good preservative solutions do. We have used it much for preserving dissections of the nerves and other wet preparations, which require to be frequently handled; and some of these, after lying in it for the above-mentioned time, are now in perfect preservation. Although, on the whole, we prefer, for the latter purpose, common spirit, the zinc solution is less expensive, and does not require renewal. It is especially useful for correcting a preparation which is not too recent, before placing it in spirits.

Mr Bowman dilutes Sir W. Burnett's solution with fifty parts of water.

II.—PRACTICE OF MEDICINE.

303.—*Queries in Medical Ethics.* By W. Fraser, Esq., M.R.C.S.E.—[The following queries and answers, which bear reference to certain points of a practical nature, were read before the Medico-Chirurgical Society of Aberdeen, in April last, by W. Fraser, Esq., Surgeon; the answers seemed to express the views in general entertained by members, on the points to which they refer.]

Query 1.—If a patient wishes you to call into consultation a medical man of whose qualifications in the circumstances of the case you may have an unfavourable opinion, is it proper or honourable to decline doing so, or to endeavour to alter the opinion of your patient?

Ans.—If your patient expresses a very decided wish to have a particular person called in, you ought to acquiesce, provided there be no professional stain on his character sufficient to warrant you to decline doing so. His being junior to yourself, either in age or professional capacity, is certainly no sufficient reason.

Query 2.—If, on being sent for by a patient, you find that he has been under the charge of another, who, from some reason or another, has discontinued his attendance, although it was still desired by the patient, is it proper in you to take charge of the case, or ought you previously to communicate with the other medical attendant?

Ans.—You should advise the patient to

let his former attendant understand that he wishes his services continued, and if the latter decline to continue them, there is nothing to prevent you from taking charge of the case.

Query 4.—When a medical man is called into consultation by another, and supposing they entertain a difference of opinion as to the nature of the case,—a difference, however, which does not prevent them from co-operating in its future management,—is either of them justified in giving an unfavourable impression of the practice of the other to the patient or his friends, or to any other person?

Ans.—No.

Query 5.—When a medical man's advice is asked by a person whom he knows or suspects to be at the time attended by another, what is the proper course for him to pursue?

Ans.—He should do as he would be done by, and not encourage any such application; but rather by his answer endeavour to strengthen the person's confidence in his medical attendant.

Query 6.—When a medical man has a near relative residing at a distance dangerously ill, and when friends have written to him describing the condition of the patient and treatment pursued, and wishing his opinion and advice, what course should he adopt? should he address himself to the friends or to the practitioner in attendance?

Ans.—To the latter unquestionably.

Query 7.—If, during your attendance on a case, another medical man should, without your own or the patient's consent being asked, be called in, and that not by the party who employed you in the first instance, what is the proper conduct to pursue?

Ans.—I think to decline meeting with him till the wish of your patient and employer be ascertained.

Query 8.—When a medical man called, during the progress of a case, into consultation with another practitioner, persists, without any expressed wish on the part of the patient or friends, in continuing his services after the danger is over, and when the person first in attendance thinks his further assistance both unnecessary and inconvenient—what is the proper resource for the latter?

Ans.—The most effectual hint would be paying him his fee; but if he declare the case to be still in need of his attendance, you can have no resource without coming to a rupture with him.

Query 9.—When a medical man is called to a case on an emergency, during the absence of the practitioner in attendance—what is the proper etiquette to be observed by the two?

Ans.—The person called in should do what is *necessary* in the urgency of the case, and nothing more: nor should he repeat his visit. He might write a note to the regular attendant, if he thinks it necessary, explaining what has been done. The ordinary attendant, on the other hand, should not neglect to thank the other, either verbally or by letter, for his assistance; and, moreover, if this has been of great consequence, and the patient's circumstances are such as to justify it, he should advise the latter to send him a suitable fee.

Query 10.—When a medical man, on proceeding to a case to which he had been summoned, but had been unable to give prompt attendance, finds that another had been sent for, and had already prescribed—what should be done?

Ans.—Simply make his bow and retire, if the parties should be strangers to him; or, if they are intimate friends, or the case that of a previous patient, and they express a very decided wish to retain his attendance in preference to that of the other,—he should recommend them to settle on friendly terms with the latter, and afterwards send to himself a message to renew his attendance.

Query 11.—When a patient, labouring under a complaint tending, if the proper means are not used, to a fatal termination, calmly and deliberately tells you that he does not wish his life protracted—what duty remains for you?

Ans.—To endeavour, in the first place, to bring him to a more hopeful and healthy frame of mind; and, whether you succeed in this or not, to tell him that so long as you continue in attendance, you must and will use the proper means for his recovery. The friends, at the same time, should, with due discrimination, be made aware of the state of matters.

Query 13.—When a junior member of a family applies to you, and states that he does so in consequence of having lost confidence in the family medical attendant—what is your proper course?

Ans.—If the applicant be arrived at years of discretion, and if the complaint be such as not to confine him to the house, or to obtrude itself upon the notice of the rest of the family, you should prescribe, and do what is necessary in the circumstances. If the patient has not come to the years of discretion, or if the complaint be such that it must of necessity, or may by probability, confine him to the house, or come to the knowledge of his family,

you should decline taking charge of the case till he has communicated with his parents or guardian, and obtained their sanction for your attendance. Before undertaking the case, however, you should endeavour to reconcile the patient to his ordinary attendant, by removing any prejudice or misconception he may be labouring under; although, when the objection is simply a decided want of confidence, no arguments that you can use will probably be of much avail.

Query 14.—Is a medical man to consider himself bound in honour to conceal from the demands of justice, information that has come to his knowledge through the necessary and unavoidable divulgements of professional intercourse, when such testimony might prove detrimental to his patient?

Ans.—He is bound by law to forward the ends of justice, and as an honest man and a good citizen he cannot and will not try to do otherwise. However, he should use his own discretion in cautioning his patient and the friends against imparting or exposing anything that could be turned to the party's disadvantage, and he should show no inquisitiveness beyond what is absolutely necessary towards the proper discharge of his professional duties. The Roman Catholic priest enjoys in this respect, by the established law of custom, I suppose, an advantage over the medical man; and very properly, for otherwise one of the most important rites of that religion would be rendered perfectly nugatory.

[This answer is not satisfactory. If a medical practitioner, when called in to any case, makes the discovery that his patient has committed some crime—no matter what—or is in hiding from the officers of justice, we consider that he is bound to keep the discovery as profoundly secret, as is the Catholic priest who has received the same information at the confessional; had he not been a physician he would never have made the discovery; as a physician, he is bound to keep it secret, and to avoid turning it in any way to his advantage, whether as a means of extorting a large fee or otherwise. Having completed the cure, he must leave his patient in the same condition, as regards his relations with the world at large, as when he found him; his last words must not be, "Call the police!" but "Go, and sin no more."]

Query 15.—Is it proper in a medical man to attend his own wife in her confinement?

Ans.—Perfectly proper, provided he is accustomed to this branch of the profession, and she and her friends have confidence in him: but if there be anything unnatural and difficult in the case, he should at once take assistance; or, if his feelings interfere with the proper treatment of it, he should leave it entirely in the hands of another. Such a course will, in the event of a fatal termination, prevent malicious remarks, or even judicial interference, and save the practitioner and the friends from subsequent regrets.

Query 16.—When sent for, in an emergency, to a midwifery case, in the absence of the practitioner whose attendance had been pre-engaged; and supposing him at last to arrive when the case is occupying your most serious attention, or even receiving your manual or mechanical interference—what is the proper etiquette to be followed?

Ans.—To resign the case at once into his hands—or, at all events, as soon as safely practicable, after explaining the state of matters to him, and obtaining, or taking for granted, the patient's consent to the transference. If your further assistance is wished by the practitioner who was pre-engaged, or by the patient with his consent, which it would probably be if the case were one of difficulty or danger, then you ought to remain. As to the remuneration, the answer would be as in query 9.

Query 17.—Do the prescriptions of a medical man belong to the patient or to the prescriber?

Ans.—The prescriptions written by a medical man are the property of his patients; and I do not think that the former is justified, under any circumstances, in taking away or destroying them. If he should do so, patients will be apt to suspect some sinister motive,—most probably a wish to conceal his malpraxis, or else to deprive them of the means of treating themselves in any subsequent similar attack.

Query 18.—In the case of an accident, involving responsibility on the part of any one, whether has the sufferer, or the person whose responsibility is compromised, the right to appoint the medical attendant?

Ans.—The patient himself or his friends, I think, have the prior right (whether they choose to exercise it in the first instance or not), as no consideration can be held to outweigh a man's interest in his own life and health; but the other likewise has a right to satisfy himself as to the competency of the attendance and skill which are bestowed on the case; and, whether he has any doubts on these points or not, may, for his own satisfaction, as-

sociate another along with the patient's own medical attendant; and of course it is the duty and policy of both the gentlemen to act in harmony for their patient's recovery, and, at the same time, to look after their respective clients' interests. In the question of remuneration, there is more of law than of medical ethics involved. Of course, if the party whose responsibility is at stake appoint a medical man to attend, it falls to him to pay the latter under any circumstances.

Query 19.—To what extent has the medical man the right to interfere in the selection of a druggist to supply the medicines he prescribes?

Ans.—Under ordinary circumstances, he has no right to dictate to his patients as to the druggist they should employ. When asked to whom the prescriptions are to be sent, which he will frequently be, the practitioner should say, "to any respectable druggist;" or he may mention the names of a few that he knows to be trustworthy, leaving the patient to make his choice. But if the practitioner is convinced by experience that any druggist does not keep his medicines of the standard strength, or otherwise does injustice to those who employ him, he is warranted —nay, he is bound, both in justice to himself and to his patients—to see that the latter do not put themselves within such a person's power. —*London Med. Gaz.*, Aug. 3, 1849.

304.—*On the Pneumonia of Children.* By M. VALLEIX.—Contrary to formerly entertained opinions, pneumonia is a frequent disease in children; but it is to speak too vaguely to treat of children in the mass, as great differences exist, according to their ages. We may take three periods into account: 1st, from birth to the second year; 2d, from two to six; and 3d, from six to fifteen. And as a general statement, making allowance for even numerous exceptions, it may be said that the disease decreases in severity from the first to the third of these periods. Careful researches have proved that during the *first two years* pneumonia is more frequent, more dangerous, more rapid, and oftener double, than at any other period of life, except *extreme old age;* and the similarity of the disease, at these two extreme periods of life, is in many respects very remarkable. During even the *first period*, the danger of pneumonia much depends upon the part of such period it occurs at. Whatever the state of the child's health may be, if attacked during the *first month* it may be regarded as doomed to certain death; and from the first to the sixth month there is little hope of saving it, if the attack be at all severe. From the sixth to the twenty-fourth month the cures becomes more frequent, but the prognosis is still very bad, and should be most guarded, until convalescence is quite complete. The general symptoms may seem to amend, and the local ones to make little progress, but in from twenty-four to thirty-six hours a recrudescence occurs, which proves rapidly fatal. If the patient continue uninterruptedly to improve during thirty-eight hours, the convalescence is almost always definitive. The *local symptoms* should be especially watched; for it is not here as in adults, in whom we often see local symptoms continue for a considerable time after the general ones have diminished, without any cause for alarm. If, in the infant, there is not in twelve hours a notable improvement in the local symptoms, a fatal relapse must be feared. Another peculiarity is the *lobular* form of the disease, usually a consequence of an already severe attack of capillary bronchitis. At this period, too, as in advanced age, *double pneumonia* and pneumonia of the *apex* are common. M. Valleix believes that there is some confusion in the statement of MM. Bailly and Legendre, that the anatomical condition of the lungs in these cases is due to a persistence of the fœtal state; for although a condensed state of the pulmonary tissue, disappearing on insufflation, may very often be found in very young infants, yet it is an error to suppose that all the cases usually described as infantile pneumonia are of this nature. He has, in such cases, met with even a denser hepatisation than in the adult, the lung rapidly sinking in water, and being quite impervious to insufflation. The cases described by these writers would not, from their symptoms during life, be considered by good observers as pneumonia.

In proportion as we approach the *second period*, the pneumonia loses its lobular character, and approaches nearer to that of the adult, while its fatality diminishes also. Indeed, especially during the last two or three years of this period, the *benignity* of the disease is remarkable; and little alarm need be excited, except if the child is already an invalid, when the supervention of pneumonia is exceedingly dangerous. By benignity it is not meant that the symptoms are slight, but that the cure is so sure; for, in fact, the symptoms have a very alarming appearance, and yet, in spite of them, amendment takes place in from two to four days, after which time the cure goes on rapidly.

In the *third period*, the disease still more resembles that of the adult, and is still benign. A distinguishing circumstance at some part of this period is the appearance of expectoration.

As a general rule, the younger the child, the greater is the difficulty of the diagnosis. For ausculation, very young children should be held, by an assistant placing his hands under the thorax and belly, when examination can be made, especially as, in this position, the child usually ceases crying for awhile. Older children should be held on the mother's arm. In a case, in which auscultation was very difficult, M. Valleix availed himself with success of the observation of the increased thoracic vibration, indicated by Monneret.

Treatment.—During the third period, the child is treated as the adult. In the second, we must be more chary of our means, remembering that there is a natural tendency to cure. One bleeding usually suffices, and antimony should be reserved for only severe cases, and used with great caution. With still greater caution should it be given in the first period. Still if there is great or increasing hepatisation, it is to be used in divided and infrequent doses. Small cuppings are very preferable to leeching, and mild opiates are too much dreaded by practitioners. Blisters should be wholly discountenanced, especially in the very young.—*Bul. de Thér.*, vol. xxxvi, pp. 97-103, and *Med. Chir. Rev.*, Oct. 1849.

305.—*Epidemic Cerebro-Spinal Meningitis.* By Dr Ferrus.—This dreadful malady, which prevailed towards the end of 1848 and the commencement of 1849, at Petit-Bourg, is carefully described in a memoir, presented some time back, by Dr Ferrus, to the Academy of Medicine. Unlike preceding epidemics, this one attacked children.

The symptoms are extremely well marked and constant. The disease always commenced with a violent rigor, followed by vomiting for some hours, and then intense headache. In all the cases excessive sensibility of the skin existed along the whole of the spinal column, and particularly at its lower part. All the patients likewise presented more or less rigidity of the cervical column, almost amounting to opisthotonos in some cases. (The same stiffness and rigidity are a frequent symptom in the ordinary hydrocephalus of children.) The limbs were often agitated by convulsive movements, and contraction of the extremities existed in all the cases except one.

The state of the pupil was not constant, being sometimes dilated, sometimes contracted, or alternately so. The delirium was more or less violent in all cases except one; but coma was seldom profound, and in two cases it was absent.

The pulse was ordinarily, and during the whole course of the malady, depressed, slightly accelerated, or even slower than natural; seldom above 100, never beyond 104.

Of the seven cases described by Dr Ferrus, two ended fatally in six days; two in four; one in a few hours; one favourably, in fifteen days; and one little patient, after having remained four months in a complete state of idiotcy, recovered completely.

Post-mortem examination revealed the existence of lesions, which might easily be deduced from the symptoms. The principal were inflammatory injection of the meninges, chiefly remarkable—first, along the fissure of Silvius, and on the pons varolii; and, secondly, along the spinal marrow, and particularly at its lower part. In three cases there was abundant suppuration of the sub-arachnoid cellular tissue; and in one of these the pus had followed the sheath of the optic nerve into the interior of the eyeball. The quantity of pus underneath the arachnoid of the spinal marrow was very considerable. In one case, which terminated fatally, there was nothing more than simple injection of the membranes. The cerebro-spinal substance was healthy.

One case was remarkable from its similarity to typhoid fever. The deep stupor, the dark state of the tongue and teeth, and the delirium, might have led the medical man into error; but, on the other hand, the throwing back of the head, with stiffness of the neck, contracture of the limbs, and absence of diarrhœa, could not deceive him.

The treatment employed was energetic, though unavailing.

An epidemic of the same kind prevailed some years ago amongst the garrison of Strasbourg, and has been well described by Dr Tourdes. The above notice may afford a means of comparing its symptoms with those of ordinary tubercular meningitis. Rigors and furious delirium are the chief symptoms in which the epidemic differs from the tubercular form. The effusion of pus underneath the arachnoid, and especially over the spinal marrow, is its main pathological lesion.—*Med. Times*, Sept. 8, 1849.

306.—*Anemia following Rheumatism.* By Dr O'Ferrall.—There have been

several cases of rheumatic fever lately in St Vincent's Hospital, Dublin. In commenting on those in the wards, Dr O'Ferrall stated that he was induced to believe that this disease had a tendency, in its latter stages, to produce phenomena connected with a diminution of the globules of the blood. Some modifications in the constitution of the blood during rheumatic fever had been already observed. It had been ascertained that, at an early period of the disease, the fibrine is increased; but it would appear that, subsequently, there is, in many instances, a diminution of the colouring matter. The attention of Dr O'Ferrall was first called to the subject by observing that, in cases with endocardiac complications, after the employment of depletion and mercury, a cardiac bruit, of a different character from that which originally presented itself, continued to persist, notwithstanding the steady employment of the usual means for subduing inflammatory action. By-and-bye cases terminating fatally came under his observation, in which, although this bruit was present to the last, no morbid appearances could be detected in the heart, upon post-mortem examination. Afterwards he found that a râle musicale in the cervical vessels very constantly accompanied this peculiar cardiac bruit; and he was led to suspect that, after the subjection of the inflammation by bleeding and mercury, an anemic condition followed the use of these remedies, which would require a very different treatment for its subdual. He accordingly ordered chalybeates, as in an ordinary case of chlorosis, and found the cervical and cardiac bruits to disappear under the use of this remedy. As yet he imagined the anemia to be due to the effects of the antiphlogistic treatment employed in combating inflammation; but during the last few years he has had repeated opportunities of observing, that a râle musicale in the neck, and a bruit accompanying the first sound over the aortic valves, very frequently coincide with the decline of rheumatic fever, in cases where no active and weakening remedies have been employed; and he has been thus led to the conclusion that the natural tendency of the disease in its advanced stages is to produce a diminution of the hæmatosin of the blood, evincing itself by its ordinary physical phenomena. This observation is one of very great practical importance, teaching us the necessity of discriminating between those cardiac sounds produced by the participation of the heart in the general rheumatic disease, and those arising from deterioration of the blood. The treatment in the two cases must obviously be of a totally different nature.—*Med. Times*, September 15.

307.—*Curability of Phthisis.* By M. Le Couppey.—According to the author, we have in our hands a pharmaceutical preparation, which possesses the power of causing tuberculisation to retrograde, and of reducing it to zero. This is the mercurial ointment (*Codex*, No. 559) given in the dose of one to eight grains in the form of pill—one-half in the morning, the other in the evening. Under the influence of this modifying agent, employed during the *first* stage, the morbid phenomena soon decrease, and ultimately disappear, and some of them in a constant and invariable order. Thus hæmoptysis, when it exists, disappears immediately, even after having resisted other remedies. Sweating disappears next; then comes the cessation of the cough; and, lastly, that of the symptoms revealed by percussion and auscultation. In short, the cure is perfect, and is effected in the course of a few months. The author concludes by saying, that we can thus invariably combat pulmonary tuberculisation successfully, provided it has not reached the last stage. The curability of phthisis is thus, by M. Couppey, determined in the affirmative. — *Gazette Médicale*, No. 32, 1849.

[M. Couppey says nothing as to whether the constitutional effects of mercury were observed in any case. Neither does he give any cases or statistics. And he says nothing as to diet and other circumstances, which must exert considerable influence in a disease several months under treatment.

We give the above more from the confidence with which it is related by the author, than from any great faith in the probable success of the treatment recommended. A trial, however, could do little harm, if no good.]

III.—PRACTICE OF SURGERY.

308.—*History of a Case of Ligature of the Common Iliac Artery.* By Dr Peace, Pennsylvania.—This case was published in 1843. The artery had been tied in 1842. The patient was discharged from the hospital, cured, six weeks afterwards, and five months after the operation, the tumour, which had been very large, was

found to be hard, greatly reduced in size, and free from pulsation. He returned to a laborious occupation, and fifteen months after the operation his attention was directed to a re-appearance of the tumour. On presenting himself, the tumour was found to be about the size of a small orange, soft and fluctuating, with the integuments covering it discoloured. In a few days ulceration took place, and he died after repeated hemorrhages. On dissection, it was found that the ligature had been placed on the artery just above its bifurcation, where it was perfectly sound, and that the blood had been furnished to the tumour by the collateral vessels.

On the patient's re-admission, ligature of the aorta had been thought of by Dr Peace, with the view of prolonging the patient's life, but it was found that pressure on this great trunk at its lower part did not arrest the flow of blood; and, on dissection afterwards, the reason of this appeared, from the collateral arteries being given off above "the point at which it is prominent upon the vertebræ."

In the same report a case is noticed as having been described by Dr West, in February last, as showing how the circulation has gone on after obliteration of the aorta. In tracing the aorta beyond the origin of the great vessels of the arch, its cavity was found to be entirely obliterated immediately beyond the attachment of the ductus arteriosus. The stricture was a narrow one, and beyond it the vessel resumed very nearly its natural dimension, and so continued throughout its course, "giving off" the usual branches. The internal mammary and the epigastric arteries were as large as the internal iliacs, and the former were tortuous.—*Medical Examiner*, 1849.

[A considerable number of cases, in which complete obliteration of the aorta did not arrest the circulation, have been recorded, and in several of these the obliteration occurred just beyond the point where the obliterated ductus arteriosus is connected to the arch of the aorta, that is, shortly after the origin of the left subclavian. In these the blood is found to reach the aorta beyond the obliteration, by its enlarged intercostal arteries, which obtain it from the internal mammary and superior intercostal of the subclavian, and the thoracic branches of the axillary artery; and in the abdomen, by the enlarged diaphragmatic and lumbar arteries, which are fed by the internal mammary, and through it by the epigastric; but the supply to the lower extremities is largely re-inforced by the strong current from the subclavian, through the enlarged mammary and epigastric branches, to the external iliac.

It is to be regretted that the American report does not give a more detailed account of the collateral vessels by which the circulation was continued, more especially in the case of ligature of the common iliac.

In this case the circumstances under which it was proposed to tie the aorta are singular. The common iliac artery being already impervious, no effect could be expected to be produced on the diseased side, unless the ligature were placed on the aorta above the origin of some of the lumbar arteries (through which the collateral circulation is chiefly carried on to certain branches of the external and internal iliacs); which could scarcely be safe, either as regards the success of the endeavour, or the effect upon the circulation.]

309.—*Lithotomy in America. Report of Committee on Surgery.*—Dr Dudley, Professor of Surgery in the Transylvania University, is said to have, up to 1846, operated in 185 cases of stone, of which number 180 are reported as successful. This remarkable result is not owing to a selection of cases having been made, as three only had been refused, but is attributed to the "thorough preparation of the general system" made by Dr Dudley preparatory to the operation.

In the Pennsylvania Hospital, from 1752 to 1848, eighty-three patients had been cut, invariably by the lateral method, and, except in a few instances of very young children, the gorget had been used, and of these ten died. Of the eighty-three, five were females, none of whom died; and out of thirty-six of the eighty-three, in which the ages are given, twenty-two were under ten years of age, and ten under twenty. These thirty-six are those which occurred since the year 1832, and of them only two died, and these were children at three and four years of age.

Dr Mettawer of Virginia, has operated in seventy-three cases, two of which proved fatal, one from prostatic hemorrhage, the other from spasm of the ilium.

Dr John C. Warren has operated on thirty patients, of whom two died; one on account of an error in diet, the other had a purulent effusion, owing to the great size of the stone, and the force required to extract it.

Dr Marsh of Albany, and Dr Eve of Georgia, have operated each seven times,

and all of the cases were successful. Although the bilateral operation of Dupuytren is occasionally performed, the lateral operation, with the gorget, is the method in common use.

Supposing all of the patients to have been males in the preceding accounts when the contrary is not stated, and adding the whole of the males together, we have in 380 cases only seventeen deaths, or about one in twenty-two.—*Medical Examiner*, February 1849.

310.—*Lithotomy*—117 *Calculi, weighing together four and a-half ounces, successfully removed.* By Paul F. Eve, M.D.—The largest weighed ʒij. and 38 grs., the two next in size each 78 grs., and the smallest 1 gr. The calculi were four-sided, and were found, on analysis, to consist of phosphate of lime.

The patient, forty-three years of age, received an injury of the back twenty-five years ago, after which he had difficulty in making water. For the two last years this difficulty became so great, that, to discharge urine at all, he had to assume the horizontal position, and push up the bladder with his fingers introduced into the rectum. Much matter also came by the urethra. There was a swelling on the right side of the perineum; and when he sat down on the edge of a chair, he felt a crepitating sensation as if a ball of snow was being crushed in the perineum.

The swelling in the perineum was incised, a quantity of pus escaped, and fifty calculi were removed. They lay in a cavity which communicated through the bulbous part of the urethra with the bladder, which lay two inches deeper. The lithotomy incisions were completed, and sixty-one stones removed from the cavity of the bladder. The operation occupied an hour. The patient made a good recovery, and preserved his virile powers.—*Amer. Jour. of the Med. Sciences*, April 1849.

[The author reckons this case of interest on account of the great number of the stones, and the occurrence of ulceration by which they were in progress towards a spontaneous discharge by the perineum. Partial or complete cases of the latter occurrence are related by Brodie and Langenbeck; and Mr S. Cooper refers to a case, recorded in 1822 in Germany, in which 398 calculi, varying from the size of a pea to that of an olive, were found in the bladder after death. By analysis they were found to consist of phosphate of lime, phosphate of magnesia, and uric acid.]

311.—*Re-union of Parts, after Total Separation by Incision.* By Mr Denny, of Stoke Newington.—Although I am aware that there are several cases on record of portions of the thumb and fingers having become re-united and re-organised, after separation for a short period, still they are not so numerous, nor is the principle of grafting in the practice of surgery so well established, as to render it useless to add to their number, or to corroborate its practicability by reporting any successful case that may occur.

A labouring man applied to me to dress the thumb and forefinger of the left hand, having, as he stated, met with an accident whilst cutting or chopping a handful of grass with a sickle. Upon examination, I found he had by a clean incision, cut out of the thumb a triangular-shaped piece, the incision extending from the end down the centre of the nail, nearly to the root, then outwards towards the forefinger. The piece thus disunited consisted of the portion of nail described, integument, muscle (?), and a minute portion of bone. From the finger he had merely sliced off a piece of muscle and integument on the side next to the thumb. I sent him back the distance of two miles, to search amongst the grass for the dismembered portions, which he succeeded in finding, and which, upon his return, I carefully washed with warm water, and adjusted in exact apposition to the surfaces from whence they were cut. I freely applied collodion, so as effectually to exclude the atmosphere, and prevent any further hemorrhage, and with narrow pieces of strapping held them firmly in the position in which I had placed them. The result has been the perfect re-union of both pieces, leaving little or no cicatrix.

I should mention that the period that elapsed from the occurrence of the accident to the replacing of the parts was four hours; also that the pain, which was very acute, from the exposure of the cut surfaces to the atmosphere, ceased immediately that the parts were replaced, and the man experienced little or no pain afterwards.—*Dub. Med. Press*, Sept. 26, 1849.

312.—*Death from Impaction of Food in the Glottis—Deficiency of the Epiglottis.* By Mr Gabb, of Hastings.—Mr J———, aged fifty, had often complained of his food "going the wrong way." He was in the habit of eating very greedily, and on this occasion hurriedly tried to swallow a large piece of mutton chop. He began gulping, but in a few seconds seemed relieved; again he commenced doing so, when a neighbour came in, and, with the handle of a tablespoon, tried to

ram the meat down his throat. He died almost immediately afterwards. On examining the parts, a large piece of mutton, weighing half an ounce, was found firmly impacted in the rima glottidis, requiring some force to dislodge it. The woman, no doubt, with the handle of the spoon, had forced it down.

A peculiarity of the case was the almost total absence of an epiglottis, the rudimentary one present measuring not more than a line and a-half.—*Dublin Med. Press*, Aug. 22.

313.— *Cynanche Tonsillaris — Sudden Death by Asphyxia from Abscess opening into Pharynx.* By W. England, M.D.— Mrs B., aged thirty, had had frequent attacks of quinsey for many years, and, having always recovered from them without their being attended by dangerous symptoms, she refused having any medical assistance until a week after the commencement, on August 12th, of her present attack. She was then seen by Mr Burman, who found the case one of ordinary cynanche tonsillaris. She improved under the treatment followed, and was able, on the 20th, to follow her usual occupation at the bar of an inn, but shortly after she had retired to bed, her husband was alarmed by hearing a rattling sound in her throat, which was followed by suffocation. In less than a quarter of an hour Mr Burman was at the bed-side, and found her sinking from asphyxia, and on Dr England's arrival, in a minute or two, she was dead.

At the post-mortem examination, the trachea and larynx were found filled with purulent matter, the mucous membrane being healthy, without any perforation. Both tonsils were much enlarged, but neither had suppurated. Dr E. continues, "The only case that I can find recorded that bears any analogy to the case of Mrs B., is one published by Dr Watson, in the third volume of the 'London Medical Gazette'; but in that case the asphyxiating cause was coagulated blood from a branch of the lingual artery being perforated by an abscess of the pharynx opening into the fauces below the left tonsil, on a level with the epiglottis. In the case of Mrs B. also, the tonsils had not suppurated, and I am inclined to think the abscess was pharyngeal, seated likewise under the left tonsil. That we were obliged to limit the post-mortem inspection is much to be regretted."—*Prov. Journal*, Sept. 5, 1849.

314.—*Wound of the Aorta by a Foreign Body arrested in the Œsophagus.* By W. F. Morgan, Surgeon to the Bristol Infirmary.—I was sent for late in the evening to a lady, sixty years of age. She was suffering acute shooting pain in the epigastric region, increased by any movement, and especially by the act of deglutition. Pressure by the fingers also increased the pain, but pressure by the hand rather lessened it. She was much distressed, and anxious for relief. There was no other symptom of illness. The pain had commenced suddenly, during her dinner, and was considered by herself and those who were with her to be one of her usual attacks of "spasm in the stomach." It was stated that she had taken some vegetable matter hastily, which lodged for a short time in the chest before it passed into the stomach, but she felt nothing from it except a transient soreness, and it was not until afterwards that the pain came on. In a few minutes vomiting took place, and the pain had continued in spite of mustard poultices and other means. Notwithstanding the conviction of the patient and her friends that it was only one of her old neuralgic seizures, and that it was impossible that she could have swallowed any foreign body, I strongly suspected the existence of a pin or something sharp sticking in the upper part of the stomach. The localization of the pain to a point just below the ensiform cartilage, its shooting or pricking character, its aggravation by every movement, and particularly by the act of deglutition, and its first occurrence during dinner, were not improbable grounds for such an inference. She remained much the same for eight days, the pain continuing, more or less, in the same spot, and being of the same character. For two days, however, she was decidedly better, during which period she had a similar pain in the face and shoulders, which rather confirmed the impression that it was a neuralgic attack. The pulse had no increased frequency; the tongue was clean; the skin cool; there was no thirst nor sickness. The only symptoms present were the epigastric pain and anorexia, with want of sleep, from the severity of the pain, although she had large doses of morphia. A variety of treatment was tried in vain. On the morning of *the ninth day*, as she was leaving her bed for the night table, she became very faint and fell on the floor. I saw her shortly, and found her almost pulseless, and very pallid. The liberal administration of stimulants somewhat restored her, and then for the first time since the day of the accident she was sick, and vomited about six ounces of fluid arterial blood; she had also passed from the bowels during syncope a small quantity of dark blood, like treacle in co-

lour and consistence. The pain, which had returned as bad as ever, had now entirely ceased, and excepting a sense of a great weakness, she felt quite well, and wanted food. During the next forty-eight hours she passed three or four motions, consisting chiefly of the same black matter, but there was no return of sickness. She gradually recovered, to a considerable degree, from the state of faintness, enjoyed her food, wanted to sit up, and remained free from pain. During the last night of her life, she slept comfortably, and awoke at five in the morning with sickness. She vomited about eight ounces of fluid arterial blood, and immediately expired. Her death took place *ten days* from the date of the accident, and forty-eight hours from the commencement of syncope.

An examination was readily obtained, which cleared away all doubt as to the nature of the case. The stomach was distended by an immense coagulum of fluid blood, recently effused. The colon was distended in like manner throughout the whole of its extent, by the same kind of black treacly matter which had passed during life, evidently blood acted upon by the intestinal acids, and probably effused some time before. The small intestines were free from blood. Not the slightest lesion, nor any morbid appearance, could be detected in the stomach or bowels. On slitting up the œsophagus, an opening was observed through which a probe could be passed into the descending aorta, an inch below the left subclavian artery, the œsophagus and aorta being close together. The opening was the third of an inch in length, with torn and irregular edges. The wound of the aorta was smaller, and situated rather lower, so as to make the communication somewhat valvular ; on the opposite side of the œsophagus was an abrasion of the mucous coat, evidently caused by local injury.

Thus, then, the cause of death was sufficiently manifest. It was clear that a wound had been made by some foreign body lodging in the œsophagus, and perforating the aorta through it. On carefully examining the contents of the stomach and bowels, a small piece of bone was found, which I have little doubt was the cause. It was thin but strong, of an irregular outline, half an inch in length, and a quarter of an inch wide at the centre, becoming narrower at each end. It had been probably longer and more pointed originally.

In his remarks on this case, Mr Morgan discusses the question as to the propriety of the introduction of the probang in such cases. He concludes that, in a case where the body is known to be hard and sharp, it is better practice not to endeavour to use the probang, when it has reached low down, so as to be out of the reach of the finger or extracting instruments.

[A case, in some respects very similar to this one, was related by Dr James Duncan, in 1844, in the *Northern Journal of Medicine.*

The foreign body—a couple of false teeth, fitted in a sharp projecting plate—was arrested at the same part of the œsophagus, but appeared to have descended into the stomach. *Nine days* afterwards the patient died from hemorrhage ; and, on dissection, the aorta was found to be perforated about half-an-inch below the origin of the left subclavian. We refer to Dr Duncan's interesting paper for a notice of a number of cases of arrest of foreign bodies in the œsophagus, and observations on the treatment and termination of such cases.]

315.—*Foreign Body in the Rectum.*—M. Velpeau related at the last meeting of the Academy of Medicine, a curious case of this kind which had presented itself to him in the morning. A man was admitted into the hospital with a tumour, which projected under the false ribs on the *right* side. It was easy to trace the form of the tumour through the walls of the abdomen, and the patient confessed that it was produced by a long *Eau de Cologne* bottle, which he had introduced into the rectum. Although the story appeared so extraordinary, it turned out to be true ; for the neck of the bottle was easily felt on passing up the finger ; it was then seized, and the whole bottle extracted with facility. It was twenty-eight centimetres in length, and as the foreign body disappeared, so did the tumour of the side; in fact, it was impossible to doubt that the tumour depended on the projection of the bottle. The patient felt no inconvenience after the extraction of the substance; but it seems strange that any inflexible body could penetrate so far, without producing any lesion whatever. — *Medical Times,* September 8, 1849.

316.—*Large Nævus of the Lower Lip removed by Ligature.* Reported from London Hospital.—January 4, 1848. William Fletcher, a bricklayer, aged twenty-three years, was admitted into the London Hospital, under the care of Mr Luke, desiring to be relieved of the incumbrance arising from an immensely enlarged lower lip, caused by a nævus, which had existed from his earliest recollection.

An attempt was made by Mr Luke, in 1843, to arrest the development of the disease by the passage of a series of threads through it, which, having caused considerable inflammation, was attended by temporary success. Of late, however, the lip has rapidly and enormously increased, and has given rise to very great annoyance, both in speaking and taking food. There is also extensive discoloration of the skin, over the lower part of the face, the neck, and upper part of the chest; but this was not in progress of extension, and gave no inconvenience. For the purpose of removing the large mass of diseased lip, Mr Luke adopted the following proceeding:—

A ligature, three yards in length, was armed with nine curved needles, which were placed about twelve inches apart from each other. The first needle was passed through the lip, from its inside near the left angle, a little beyond the limits of the tumour; the second, through the lip at a little distance to the right; the third, about the same distance, still more to the right; and so on with the other needles, until the right angle was reached, the last needle being passed a little beyond the tumour on the right side. In this way seven of the needles were used; the remaining two, being unnecessary, were removed. The needles were next cut off, and eight loops of ligature were thus left. Upon tightly tying the ends of these loops, respectively with each other, the whole of the tumour was enclosed within them, and its circulation stopped. This was done most effectively, by reason of each ligature embracing a small portion only of the lip, a proceeding which had the additional advantage of not producing any puckering or drawing in of the lip.

The tumour became livid and gangrenous, and sloughed off on the 18th, leaving a sore of a pretty sound and healthy appearance. The report on February 19th states: The lip has been healed for some time, and the patient has this day been discharged from the hospital cured. The deformity caused by the tumour, with the exception of the mere mark of the cicatrix, has, by this operation, been completely and satisfactorily removed, while the patient, possessing the power of free motion of the lip, has got rid of an inconvenience which had hitherto rendered his life miserable.—*Med. Times*, Sept. 1, 1849.

317.—*Hemorrhage from the Tongue treated with Tincture of Matico, after other means had failed.* Reported from London Hospital.—Oct. 9, 1848. William Baker, fruiterer, aged thirty-four years, states, that on the 6th instant he received a blow upon the chin, whilst the tongue was protruding from the mouth, which caused that organ to be wounded by the teeth, the consequence of which was hemorrhage, so copious and uncontrollable, as to render it necessary to apply to several surgeons for assistance; but, as none of them succeeded in suppressing the bleeding, he was brought to this Hospital in a very weak state, and placed under the care of Mr Luke. A piece of the nitrate of silver was immediately pushed into the wound; but, notwithstanding this, the bleeding still continued. A saturated solution of alum was next applied by means of pieces of lint, but still without success; and, at last, the tincture of matico was had recourse to, and used in the same way as the solution of alum, which, fortunately, had the desired effect of permanently arresting the hemorrhage.

The patient states, that whenever bleeding from his nose takes place, it generally continues for several days; that some time ago, when he was bled from the arm, it was found to be very difficult to stop the blood, which oozed through the compress and bandage for nearly four days. He further states, that he was a patient in this hospital some years back, on account of hemorrhage from the urethra, which continued for the space of seven days, and was at last stopped by keeping a large catheter for a long time in the urethra. He had also been, it appears, at another time in this hospital, in consequence of having received a wound on his hand, which bled for several days, notwithstanding that continual pressure was kept up by compresses; thus showing a very strong hemorrhagic diathesis; and, on inquiry, it is found that all the members of his family have the same disposition, particularly his father.

In the above case, the patient, after having been one week in the hospital, without any return of the hemorrhage, was discharged, with directions to take tonic medicines, and to use such other means as are likely to have a tendency to strengthen his constitution and to improve his general health.—*Med. Times*, Sept. 1, 1849.

[We may here refer to the notice given in the last number of our Retrospect, of Dr Hargrave's strong recommendation of a solution of matico leaves as a styptic.]

318.—*Compound Dislocation and Removal of the Astragalus.* By R. S. Nunn, Esq., Surgeon to the Essex and Colchester Hospital.—The patient was a robust farmer. He was thrown from a cart when travelling at a moderate pace, and fell on the side of his foot. On removing the boot

and stocking, the astragalus dropped into the surgeon's hand, held only by a few ligamentous fibres on the inside. The wound was large enough to admit the fingers for an examination of the joint, and there was no other displacement, or fracture.

Very slight constitutional symptoms followed. Leeches were frequently applied to the joint. Proper position and perfect quiet were attended to. On Feb. 28, more than a month after the accident, his health was perfectly good, all signs of inflammation had disappeared, the granulations of the wound were healthy, the suppuration sufficient and good, and he was able to raise his foot without assistance. From this time to the present he was gradually improved, and is now able, by the aid of sticks, to walk about the house, and get into his gig. The os calcis is approximated to the tibia and fibula, so that the limb is shortened to the extent of an inch. There is increasing motion in the joint, and he can bear almost the entire weight of his body on the injured limb.—*Prov. Journal*, August 22, 1849.

319.—*Acute Inflammation of the Prostate Gland, occurring after the use of Nitrate of Silver Injection.* By Mr Henry Smith.—Three weeks before he applied to Mr S., the patient, aged twenty-eight, caught gonorrhœa, for which he had been ordered nitrate of silver injection, the strength of which is not stated. This arrested the discharge, and caused great pain and bloody urine, notwithstanding which it had been continued. When he applied to Mr Smith there was great irritability of the bladder, and water was passed almost constantly, but only a few drops at a time, and that with extreme pain. Not being relieved by treatment directed against irritability of the bladder, and inflammatory fever having ensued, Mr S. next day examined the rectum, and found the prostate enormously enlarged, so as almost to close the cavity of the rectum. It was very tense and painful on pressure. There was no tumor in the perineum.

We need not give the details of the treatment and progress of the case. The ordinary general and local means were employed. Next day the swelling had increased, but there was no fluctuation. The urine deposited lithates and mucus copiously. A catheter was introduced, to make sure that the swelling did not arise from retention. It passed the prostate easily, but caused great pain. Next day all the symptoms were much relieved, and the case progressed favourably. In six days the prostate had regained its usual size, and the patient was able to resume his employment.

Had suppuration occurred, Mr Smith would have punctured the prostate from the rectum, rather than allow the matter to make its way into the gut, and leave, perhaps, a troublesome fistula. Whilst he entertains a high opinion of the advantage of nitrate of silver injections for gonorrhœa, when they are used with caution, and their effect watched, he has seen several cases where it had produced unpleasant and severe results—swelled testicle—temporary retention of urine—and great irritability of the bladder.—*Medical Times*, June 23, 1849.

320.—*Neuralgia of the Penis.* By Dr Spengler.—This case occurred in a man aged forty, who had been recently cured of gonorrhœa, aud is reported in *Casper's Wochenschrift*, No. 46, 1849. During connection with his wife for the first time after a cessation of ten weeks, he became the subject of intense pain in the glans penis, which was repeated on each repetition of intercourse. It also followed erection without emission. In the intervals he was quite free from pain. Various methods of treatment were adopted without benefit, until Dr Spengler cauterized the urethra, the repetition of which, four times, completely cured him.—*Provincial Journal*, August 22, 1849.

321.—*Successful Amputation at the Hip-Joint.* By M. Guersant.—The operation was performed on 28th December 1847, for a cancerous disease of the femur, on a child aged five years. Chloroform was used. Syncope ensued, from which the patient was recovered by stimuli. Twenty-two days after the operation the child remained well.—*Journ. de Med. et de Chir.*, February 1848.

[The case is successful as far as the mere operation is concerned, but it would have been desirable had the publication of the case been delayed until time was allowed to decide whether the disease was eradicated. In a somewhat similar case (malignant disease of the femur), which was related in 1844-5 in this Journal, the operation was performed on a boy, aged thirteen, by Dr Handyside, with complete success as regards the operation; but the patient died four-and-a-half months afterwards, from malignant disease, which appeared first in the head and then in the stump.

An interesting case of recovery after this operation was related lately by Professor Syme in this Journal (April 1849, Med.-Chir. Transactions.) Although the

patient, aged 22, was much reduced from an extensive necrosis of the femur, following amputation through the thigh, on account of a severe injury of the leg, the operation had been completely successful.

It is worthy of remark, that the operation has been successful now in four cases in which it has been performed after previous amputation through the thigh; the other cases having occurred in the practice of Sir A. Cooper, Mayo, and Mr Cox of Birmingham, in at least two of which it was performed on account of neuralgia of the stump, the patients not being so much reduced as in the case of necrosis above referred to.]

322.—*Incomplete Fracture of Bones.*—In the *Veterinarians* for July, August, and September, are contained a series of interesting cases of incomplete fracture of the limbs, chiefly of horses, by Messrs Broad, Percivall, Younghusband, and Nelson. They are remarkable from having been almost all unsuspected by their owners, in some cases by their doctors. Thus we have two giving way while being fomented for bruises, one of one day, and another of several days' standing, and several doing so while the horses were at work, though lame from a kick or blow previously received which had caused the fracture. One gentleman had been warned that his mare had a broken leg; nevertheless, the swelling having disappeared after a few days' fomentation, he, notwithstanding advice, took the animal out, and rode her about twelve miles, when she carried him "like a stag." He took her out again in the afternoon, and when about a mile from home the thigh bone snapped while he was in the saddle.

Mr Wilson likewise mentions the case of a gardener near Sheffield, who, while firing a gun as he thought perpendicularly, received a punch on the shoulder which hurt him; the pain, however, soon subsided, and he was only twice reminded by it of his accident—once when wheeling a loaded barrow, and again when whetting a scythe—till about three weeks after, while engaged in ringing a pig, the clavicle divided, one end almost coming through the skin. *All* these fractures were *oblique*. Here, then, is even a more extraordinary case than M. Jobert's (de Lamballe—vide Month. Ret. p. 103); besides sufficient corroborative evidence from veterinary surgeons, to show that such cases are not impossible,—nay, that they are possibly not so very rare,—though they may too often be passed over as instances of a previously incorrect diagnosis.

323.—*Secretion of Black Matter by the Meibomian Glands.* By Mr Hewlett, of Harrow.—The patient, a boy aged sixteen, complained that the eyes were painful and hot, and that everything looked dark. There was some conjunctival inflammation. The lids, especially the lower, appeared externally and internally as if they had been smeared with some black substance. The boy had not been engaged with any substance of this colour, and could not account for the appearance. On examining the part with a lens, each meibomian gland could be readily distinguished, filled with this dark matter. A zinc lotion, with some diluted citron ointment, was directed to be applied, and the boy was to be placed under strict observation, but without detecting any imposition. The discharge continued some days, but gradually disappeared, leaving for some time afterwards eight or ten of the meibomian canals still prominent, and loaded with this dark matter. The vision became clear as the discharge diminished. *Provincial Journal*, Oct. 3.

IV.—MIDWIFERY, AND DISEASES PECULIAR TO WOMEN.

324.—*Successful Case of Cæsarean Section, by Mr Cluley;* reported by T. Radford, M.D., Manchester.

The subject of this case had felt slight pains, according to the account of the friends, about a week; but Mr Cluley thought that true parturient pains had only existed about three days, and were so slight as not to require his interference. On Sunday, May 20, 1849, at nine o'clock, although the pains were still trifling, the head of the infant was felt, and the os uteri found dilated to the size of a half-crown piece. Mr C. unintentionally ruptured the membranes at this stage.

The pelvis was very considerably altered from its natural shape; its sides were flatter; and the posterior division of the ilia, especially on the left side, projected backwards; and the upper portion of the sacrum, and the lower lumbar vertebræ, had sunk in an inward and downward direction, so that a great concavity was perceived here. The uterus inclined rather to the right side, and stood considerably more forward than usual; its tissue felt soft and compressible. The

fundus or upper division of the organ was fluctuant, and rounder in shape than it generally is after the discharge of the liquor amnii, which led to the conclusion that a great portion of this fluid still remained.

By a vaginal examination Dr R. found the lower aperture of the pelvis very considerably diminished by the close approximation of the rami of the ischia and pubes, which nearly destroyed the arch, and by their jutting forward there remained only a narrow slit, which would not admit the point of the finger. In the transverse diameter, two fingers could only just be placed between the tubera ischii; the antero-posterior diameter was also much shortened by the coccyx and the lower part of the sacrum being considerably incurvated. This great diminution in the outlet rendered it difficult to measure the brim, so that it was necessary to carry the hand very far backwards to accomplish it. Its figure was tripartite, or composed of three divisions. This alteration in the brim was occasioned by the falling downwards and forwards of the upper part of the sacrum, and the lower lumbar vertebræ, which inclined a little more to the left side, and by the body of the ossa pubis and ischii being forced backwards and inwards, and by the jutting forwards of the symphysis and rami of the pubis. The measurement of the widest part of the conjugate diameter in the two lateral divisions did not exceed an inch and a-half. The anterior division was not more than half an inch in its widest part, as it would scarcely admit one finger edgeways. In the transverse diameter of the brim three fingers could just be placed parallel with each other. The external genitals were free from tumefaction, and the vaginal lining was moist, and of a natural temperature. She had not felt the movement of the infant since the morning, but the stethoscope satisfactorily elicited the pulsations of its heart.

Operation. — Dr Radford raised the fundus uteri, and Mr Cluley divided the abdominal integuments on the left side of the umbilicus to about six inches in extent, from which very little blood was lost. An opening was now made into the uterus by a scalpel, which was further extended upwards and downwards by the probe-pointed bistoury. At this stage some little bleeding took place from the divided sinuses; and there was also a considerable discharge of liquor amnii. Dr Radford introduced one hand into the uterus, over the infant's hip, and fixed the fingers over the flexed thigh in the groin, and having placed the other hand on the opposite side of its breach, extracted it vigorously alive. During this manœuvre the uterus strongly and regularly contracted. The funis was now tied and divided, the placenta, which was fixed on the right latero-posterior surface of the uterus, being afterwards readily detached. There was some blood discharged, but not more than frequently happens after ordinary or natural labour. Several convolutions of intestines, with a portion of omentum, now protruded, which had up to this time been supported and effectually restrained under the abdominal parietes, but they were readily returned. The integuments were brought into proximity, and held together for a short time by a hand placed on each side; and, as there was no further discharge of blood, ligatures were inserted at an inch distance from each other. Mr Cluley used a long needle, with a scalpel-like handle, for this purpose, which admirably answered. Straps of adhesive plaster were laid across the wound, and on each side a compress of lint was placed, and over all a bandage, just tight enough to give a firm support.

Up to June 7th nothing occurred in the character of the symptoms to require particular comment. She continued progressively to improve. The wound gradually filled up by granulation.

Dr Radford, who communicated the particulars of this interesting case at the anniversary meeting of the Provincial Medical and Surgical Association, remarks, the patient is thirty-one years of age, and has been married nearly nine. During this period she has had five children. The labours of the first four were natural and quick: the last of this number happened three years ago, and was so rapid that the infant was born before the obstetrician arrived. After the birth of the second, she was rather more delicate, and suffered a little from indigestion; and about five or six years since first complained of slight rheumatic pains about her hips. Two years since she was confined to bed for a short time by pains about the pelvis; but she gradually recovered, and afterwards was able to walk about tolerably well. Her general health remained the same up to the period of her last pregnancy. She was now observed to limp a little when she walked, and to be less in height.

During her gestation her progression was more difficult, and her gait more waddling. She also complained more of pelvic pains; and the diminution in her stature now evidently increased. Mollities ossium, the disease under which she

suffered, usually commences during pregnancy, and generally becomes suspended in the interval, returning in an aggravated form in each successive pregnancy, until its ravages have completely destroyed the form of the pelvis. In this case, however, it did not exactly pursue this course. There is no doubt there existed a strong predisposition to the disease—most likely hereditary; and probably the disease began at the latter part of the second pregnancy, but evidently no great, if any, mischief was done to the pelvis at this time, or for a long time after this period, as the third and fourth labours were so rapidly and easily terminated. The rapidity of its progress is remarkable; for there is little doubt that the great degree of distortion took place immediately before and during the last pregnancy. Sometimes in this disease the bones are so soft that they yield, when the hand is introduced to make an examination. This happened here, as Mr Cluley thought he felt a giving way of the bones when he examined the pelvis.

Dr Radford properly remarks further, that the aid derived from auscultation to detect whether the child be dead or living is most valuable, but not more so than the evidence it furnishes us as to the location of the placenta. It is of the utmost importance to avoid, if possible, cutting into this organ; for if it should happen that it is fixed on the portion of the uterus incised, there is some risk of hemorrhage, and it may lead to irregular contraction of the uterus, and so become an obstacle to the speedy and safe extraction of the infant.—*Prov. Med. and Sur. Journal*, Aug. 22, 1849.

325.—*Case of Cæsarean Operation, under the influence of Chloroform.* By Mr Campbell. — Mrs Rogers, aged forty years, a poor woman, residing in a mountainous district, about six miles from Lisburn, county Antrim, Ireland, had enjoyed good health from infancy till about ten years ago, when, shortly after the birth of her second child, now alive, and deformed with rickets, she began to complain of pains in her joints of a rheumatic character. Since that period she has given birth to three children, besides the one of which she was delivered by this operation. Her first four labours were not attended by anything worthy of interest; the fifth child, about four years since, although very small, was extracted still-born with extreme difficulty, owing to the contraction of the pelvis, consequent on mollities ossium, she being at that time totally unable to move or leave her bed. Her health, however, during the last year, having improved, she again became pregnant, and was seized with labour pains on Wednesday the 16th May, and visited by Mr C. on the morning of the 18th.

An examination per vaginam revealed an amount of pelvic deformity and contraction that induced him to consider delivery with the crotchet impracticable.

The pains continuing very violent, the performance of embryulcia was attempted, but failed, the pelvic contraction being such as to prevent even a finger and the perforator passing to the head together; the Cæsarean section, therefore, appeared the only course to pursue, with a view to the preservation of the life of either mother or child.

Chloroform was administered, and complete insensibility to pain being in a few seconds produced, Mr C. commenced his incision two or three lines to the left side and an inch above the umbilicus, carrying it down to within an inch of the pubes, dividing merely the integuments; then, opening the peritoneum at the upper part of the wound, from which a considerable quantity of serum escaped, and using the forefinger of his left hand as a director, with a probe-pointed bistoury he laid open the abdominal cavity, and exposed the uterus, into which he cautiously introduced a scalpel, and with the bistoury resting on his finger, as in the former incision, he divided the uterus to the extent of the external wound, and without difficulty extracted a healthy female child (weighing eight pounds), and immediately the placenta and membranes.

The uterus contracted quickly, and a knuckle of intestine, with some omentum, likely to protrude, were guarded until the edges of the external wound were brought together by a few interrupted sutures; a piece of wet lint was laid over the wound, with a longitudinal pad of calico on either side of it, and all secured by a roller firmly applied round the body, extending from the breasts to the trochanters.

The operation, which (exclusive of the bandaging) did not occupy more than five minutes, was not in the slightest degree felt by the patient, who, on the conclusion of it, in the warmest manner, expressed herself to have been without pain, and comfortable, though fully conscious that her delivery was being accomplished in so unusual a manner. Her pulse was 60, and good; vomiting, however, occurred about twenty minutes after, and for half an hour proved troublesome.

19th.—Has passed a good night, and had some sleep; lochial discharge, per vaginam, copious; urine voided freely; occasionally feels the uterus, which she describes as "a lump moving through the belly," attended with some pain, and an increase of the lochial discharge. Child applied to the breast; skin natural; pulse, 100. To have one grain of opium, and half a grain of calomel, every four hours.

20th.—The earlier part of the night has been easy, but now complains of sickness, and a tendency to faint; skin moderately warm; pulse 100; urine passed freely; lochial discharge abundant; occasional pain in the abdomen. Some milk in breasts; tongue moist and clean; bowels not moved. To have a simple enema, and continue the pills every six hours.

21st, 8 A.M.—Sickness and vomiting distressing; skin warm; pulse 120, and wiry; occasional pain in the abdomen, but no tenderness on pressure; flatus passed per anum, but no fæces, the enema having been returned as it was given. Considerable tympanitis; wound dressed, but not discharging; lochia abundant. To have ten grains of calomel in dry sugar immediately, with one grain of calomel, and one grain of opium, every three hours, and mercurial ointment rubbed into the arm-pits every three hours.

6 P.M.—Pulse, 150; abdomen slightly pained, and tympanitis increasing; some serous discharge from the wound; has vomited but once since morning. To continue the pills and mercurial ointment.

22d, 6 P.M. — Countenance anxious; some vomiting, extreme sickness, occasional hiccough; bowels not moved; no abdominal tenderness; tympanitis increasing; discharge from the wound continuing.

23d.—Has had an uneasy night; sickness and vomiting obstinate; abdomen greatly distended, but without pain; bowels still unmoved; features sharp and pinched; pulse, 140; discharge from wound copious; lochia ceased.

24th.—Sickness and vomiting having ceased, she sank about one P.M., without expressing any signs of pain, and retaining her senses till the last, having survived the operation seven days.

The post-mortem examination, made twenty-four hours after, exhibited very extensive peritonitis, with some serous effusion into the peritoneal sac; the uterus was about twice the size of the closed hand, the wound in which did not appear much more than two inches in length.

The pelvis was extremely distorted and contracted, the rami of the pubes being approximated to within half an inch of each other, as were the rami of the ischia. The antero-posterior measurement of the brim was but an inch; the transverse, two inches and a quarter.—*London Med. Gaz.*, June 29, 1849.

326.—*Cæsarean Operation successful, both to Mother and Child.*—An Italian journal, the *Gazetta Medica Lombarda*, reports the following case:—A female, aged thirty-five, had for many years been subject to rheumatic pains in the pelvic and lower extremities. Her first child was extracted dead. During her last pregnancy she had a return of her arthralgia, during the persistence of which her body became so curved that she could not raise herself upright. Labour commenced on the morning of the 20th of June, and the midwife having recognised an arm presentation as well as a distorted pelvis, sought the aid of M. Custodi. By him it was soon ascertained that the transverse diameter of the brim was only two inches. Under the circumstances, in accordance with the views of the Italian school, the Cæsarean operation was at once decided upon, and performed six hours after the commencement of labour. The only bad symptom which followed was some degree of meteorism, which was combated successfully by the external and internal use of ice; and on the ninth day the abdominal incision had perfectly closed.

327.—*New Operation for the Treatment of Vesico Vaginal Fistula.*—M. Jobert, surgeon to the Hospital St Louis, has introduced an operation for this hitherto intractable accident, and which he designates "Autoplastie par glissement," and by which he has succeeded in effecting many perfect cures. The following parts or stages constitute this new operative proceeding:—

1. The patient is placed on her back, the pelvis approached to the edge of the bed or table, and the thighs flexed as in the operation for lithotomy. The walls of the vagina are to be separated by means of a univalve speculum and curved levers contrived for the purpose. The cervix uteri is then to be laid hold of at the point of insertion of the vagina, by a pair of hooked forceps, furnished with a rack at their handles, and being drawn down to the vulvæ, is maintained in that position during the entire operation.

2. A semicircular incision detaches the insertion of the vagina from the cervix uteri. The two lips of this incision instantly separate, leaving a bleeding sur-

face about one inch in width. The vagina, with a gliding movement, slides spontaneously forward, whereby the lips of the vesico-vaginal fistula are approximated, and the loss of substance repaired.

3. The edges of the fistula are then to be paired with a bistoury or scissors. The mucous membrane only is to be removed, to the extent of about one centimetre, equal to one-third of an inch. It is important to remove only the mucous membrane, in order that further loss of substance be not incurred; and it is equally important to secure a sufficiently extensive bleeding surface for subsequent union.

4. The cut edges are next to be brought together by interrupted sutures, each at the distance of about one-third of an inch, leaving so much of the ligatures as shall facilitate their removal at the proper time.

5. If any gaping of the edges of the fistula should remain, it is also important to remove this by superficial incisions on either side of the fistula.

6. Hemorrhage is to be restrained by a plug of amadou introduced into the vagina, and which is to be removed in a day or two, perhaps on the following day.

7. An elastic catheter is to be introduced and retained in the bladder. The patient must maintain the recumbent posture, with the legs raised on cushions, until union has taken place.—*Bulletin de Thérapeutique*, Fevrier, 1849.

328.—*Abortion produced by Metastasis in Cynanche Parotidœa.* By T. Salter, F.R.C.S.—Mr Salter cites a case of a lady having aborted at the third month of her pregnancy, on the sudden remission of cynanche parotidœa, and which he thinks was the result of metastasis.

He remarks that "the chief point of interest in the case is the question, How far the specific influence of the cynanche parotidœa might have been operative in causing abortion? It must be granted that the mere febrile excitement of any severe inflammatory disease is enough, in persons so disposed, to excite abortion; but I much question if this case can be so accounted for, and that the abortion was produced simply by the febrile disturbance of the disease, independent of its specific action. Maintaining, therefore, the idea that the accident was the result of metastasis, it appears to me interesting physiologically, as it would tend to show that the ovum, while in the uterus, maintains the same relations to the rest of the organism, and is subject to the same influence, as when in the ovarium; and practically it would have an important influence on prognosis, which I should think, as far as the ovum is concerned, very unfavourable in such cases."

Mr S. says that "we have abundant experience to show, through the influence of the disease, the relation subsisting between the parotid glands, whilst affected with this specific inflammation, and the testicles in the male; and also between the same organs and the breasts in the female; and from the known sympathetic association of the mammary glands with the ovaria and uterus, it may readily be supposed that in cynanche parotidœa an irritation may be communicated to the uterine system leading to results incompatible with the continuance of the process of utero-gestation. And, on the other hand, it is possible, in this chain of causation, in cases where the female breasts are affected in cynanche parotidœa, that the influence on them may be secondary to some primary disturbance of the ovaries, though this may not be disclosed by any palpable symptoms referred to the latter organs themselves. The analogy between the testes and the ovaries, and the sympathy of the breasts with the ovaries, are in favour of this hypothesis."—*London Med. Gaz.*, July 20, 1849.

329.—*Neuralgia of the Cervix Uteri.*—According to Malgaigne this is a frequent affection. It is combined with leucorrhœa, and with congestion of the os and cervix. The characteristic symptom is the presence of a painful spot, generally near the anterior lip. It is also accompanied by neuralgic pains in the abdomen, loins, and epigastrium. His treatment consists of an incision into the painful spot, by which he divides the affected nerve. He states that he has met with great success, and the hemorrhage has in all cases been trifling.—*Prov. Med. and Sur. Journal*, Aug. 22, 1849.

330.—*A probable Sign of Masturbation in Females.*—The sad consequences of solitary vice, though well recognised in the male, frequently pass unobserved in the female, in whom the habit is probably equally, if not more common. The general ignorance on this subject arises from the difficulty in obtaining those disclosures which are made by the other sex with less reluctance. M. Durr states that he has for a long time noticed that girls addicted to this vice are subject to warts on the index and medius fingers, the instruments

of these disgusting practices. M. Vaudge has also detected the habit by this sign in two cases of extreme emaciation and debility in females, which he could not otherwise account for.—*Revue Med.-Chirurgicale*, Avril 1849.

V.—FORENSIC MEDICINE AND TOXICOLOGY.

331.—*American Jurisprudence.—Damages recovered from an Insane Person for killing a Man.*—On Sunday afternoon, May 28, 1848, a stranger was noticed in Albany, apparently highly excited, brandishing a pistol and bowie knife. His conduct attracted the attention of some men and boys sitting in the park, who followed him through several streets. He told them not to come near him, as he was armed; but they continued to pursue him, and hurled stones at him, until he turned and fired a pistol at the apparent leader, John C. Mull, who was nearest to him. The discharge slightly wounded Mull, who immediately rushed upon the armed man, and in the scuffle that ensued, was stabbed by him in the side, so that he died a few days afterwards. The stranger proved to be Thomas Kelly from Du Buque, Iowa, the owner of a valuable mine in that region, and who had about his person nearly ten thousand dollars. He was examined, and pronounced a monomaniac, and has since then been in the State Lunatic Asylum, at Utica. His insane delusion is, that persons are pursuing him to rob him, and he so regarded those who followed him in Albany. On other subjects he seems rational. An action of damages was brought against the deranged man by the executor of the estate of Mull. Mull, at the time of his death, was a young man, a mechanic, earning, when he worked, a dollar and a quarter a day. He left a wife and an infant child. The action was brought under the following law, passed December 13, 1847, only a few months previous to the death of Mull:—"The People of the State of New York, represented in Senate and Assembly, do enact as follows:—1. Whenever the death of a person shall be caused by wrongful act, neglect, or default, and the act, neglect, or default, is such as would (if death had not ensued) have entitled the party injured to maintain an action and recover damages in respect thereof, then, and in every such case, the person who, or the corporation which, would have been liable if death had not ensued, shall be liable to an action for damages, notwithstanding the death of the person injured, and although the death shall have been caused under such circumstances as amount in law to felony. 2. Every such action shall be brought by and in the names of the personal representatives of such deceased person, and the amount recovered in every such action shall be for the exclusive benefit of the widow and next of kin of such deceased person, and shall be distributed to such widow and next of kin in the proportions provided by law in relation to the distribution of personal property, left by persons dying intestate; and in every such action the jury may give such damages as they shall deem fair and just, with reference to the pecuniary injury resulting from such death to the wife and next of kin of such deceased person: provided, that every such action shall be commenced within two years after the death of such deceased person." The case was brought on in the Circuit Court at Albany, the 6th of June last, Judge Parker presiding, and was ably argued by J. K. Porter for the defendant, and H. G. Wheaton for the plaintiff. Judge Parker charged—"That if the conduct of the defendant (he being a madman) was such, when at large, as to endanger the safety of persons about him in the streets, it was the right of Mull and others to secure him, and that they were authorised to use as much force as was necessary for that purpose. And that, if in so doing by proper means, the defendant inflicted the wounds that caused Mull's death, the defendant was *civilly* liable for the damage caused, though he could not be responsible *criminally* for the act, in consequence of his insanity. This law had long been settled, and was conceded by the defendant's counsel. It was upon the ground that the loss sustained ought to fall upon the persons causing it. If a lunatic took the money or property of another person he was liable to make the injury good by way of damages in a civil suit. The rule was the same, whether the injury was to the person or property of another. But when such a suit was brought to obtain indemnity, nothing could be added to the damages by way of fine or punishment, for the lunatic was incapable of intending wrong. He was not responsible for any wrong intention, and could not be punished under indict-

ment or otherwise, for any injury he might commit. And if the jury thought the act complained of was committed under such circumstances as to make the defendant liable, they would give by way of damages only the actual loss sustained." The jury returned a verdict of two thousand eight hundred dollars. We do not know but this verdict was legal and right, but we have doubts. The law says, "Whenever the death of a person shall be caused by wrongful act," &c. Can an insane man commit a *wrongful* act in the sense that the law contemplates? Besides, insane persons, when unmolested, do not frequently commit heinous acts; but such persons are easily exasperated, frightened, and rendered furious. No doubt, in this case, Kelly thought he was defending himself against a mob, intent on killing and robbing him. In such cases we think the inquiry should be *very strict*, if those who thus suddenly pursue a deranged person through the streets are altogether in the right, and are acting with due deliberation, caution, and from proper motives. At all events, it is to be regretted that one of the first decisions under this new law should have the effect of taking the property from an insane person, who, labouring under the direst affliction of Divine Providence, rendering him incapable of intentional wrong, committed an act for which he is not responsible criminally. Such decisions must, in some cases, have the effect to strip the unfortunate wife and children of the afflicted maniac of all they possess, and the maniac himself of the means of restoration, in order to pay—for what? that which has no calculable value—which cannot be estimated by dollars and cents. What guidance had the jury to enable them to determine that the damage in this case was two thousand eight hundred dollars? Man, in this region, has no marketable value; and, as Jeremy Taylor says, "death meets us everywhere, and is procured by every instrument, and in all chances, and enters in at many doors." How can we calculate in dollars and cents the value of that which is so uncertain as life?—*Amer. Jour. of Insanity*, and *Dublin Med. Press*, September 19, 1849.

332.—*Illegal Hydropathic Practice.—Alleged Death from the Imprudent Application of Cold Water.*—On Tuesday, the 19th of June last, an inquest was held on the body of Dinah Toothill, at the Angel Inn, Keighley, before Thomas Brown, Esq., Coroner.

[In the face of the most convincing evidence of murderous treatment, juries continue to outrage the commonsense of mankind by returning the hacknied verdict of "*Died by the visitation of God.*" It would appear that the most powerful agents may be applied by the most illiterate of quacks, so as to occasion death, and yet the proper charge of manslaughter must, as in this case, be permitted to fall to the ground. The case of poor Dinah Toothill strikingly illustrates the insufficiency of legal enactments for the protection of human life, against the lethal weapons of quackery, and affords another instance of the danger of abusing a naturally innocent agent. It was abundantly proved that a gross and fatal outrage on female decency was perpetrated by a hydropathic adventurer, he having for days *personally subjected his patient, while menstruating*, to the cold water "*cure*," (?) until death removed her beyond the revolting scene.]

Evidence being adduced, in summing-up, the Coroner said that, in the whole course of his experience, he had never met with a more flagrant case than the one under consideration. He could not imagine any proceeding more repulsive to the feelings and more insulting to the delicacy of a woman than that of being taken out of bed and stripped naked by a man; and this being repeated five times a day, made the circumstance doubly gross. He then instituted a comparison between the case of the deceased and that of Miss Catherine Cashen. The latter was a patient of the notorious St John Long, who, by friction and the use of stimulating liquids to the back induced inflammation, terminating in sloughing, exfoliation of the spinal bones, and subsequent death. The friends of the lady brought an action against the quack, which was tried twice. In both trials he was found guilty, the judges deciding that "an illegal practitioner exposing the person of a female for the purpose of applying his remedies was guilty of a common assault; and if death followed upon the administration of the remedies he was guilty of manslaughter." He (the Coroner) in conclusion mentioned these facts, as they pointed out the law on the subject in a manner not to be misunderstood. It was for the jury to consider the whole of the evidence, and frame their verdict accordingly.

After a few minutes' conference the jury returned a verdict of "Died by the visitation of God."—*Dublin Med. Press*, September 19, 1849.

333.—*Sudden Death from Mental Emotion.*—A few days ago, a boy, attempting to procure some water out of the canal

which passes at the back of Georgiana-street, Camden Town, was reaching from its bank with a can, when he fell into the water, sank, and did not again rise to the surface. Drags were sent for, and in about ten minutes the body of the boy was drawn up. Every suitable means for the boy's restoration were employed by Mr Noyce, but without avail, for life was already extinct. While the drags were being procured, a labouring man, who had seen the boy fall into the water, volunteered to plunge in after him, but whilst in the act of undressing for that purpose, he was seized with symptoms of cerebral congestion, terminating in paralysis, and being taken to the adjoining workhouse, died there in about three hours afterwards. On examination of the poor fellow's head, apoplectic extravasation was found.

This case is of some medico-legal importance, from the fact that, if the above consequences of intense mental emotion had not resulted until after this man had plunged into the water, the real cause of his death would have probably remained unknown. It would, perhaps, have been attributed at the inquest to drowning.—*Med. Gaz.*

334.—*A New Disinfecting Fluid.*—The Sanitary Committee, or Board of Health, recently appointed in Paris, has just made some interesting experiments, which are worthy of record.

The state of the water-closets and other *lieux d'aisances* in this capital of the civilised world is deplorable. Although Paris had made considerable progress, within the last ten years, in the improvement of these most necessary sanctuaries, their condition still remains barbarous, particularly in the numerous schools devoted to the reception of the children of the poorer classes. The charity schools of the Rue Brise Miche, and two other establishments of the same kind—regular pest houses—were handed over to MM. Audiat and Labelonye for the purpose of making some experiments with a new disinfecting liquor—a solution of nitrate of lead. The cess-pools alluded to were so infected, that it was impossible to approach them without being almost suffocated, while the ammoniacal vapours penetrated through all the class-rooms, rendering their habitation intolerable. A simple washing of the infected localities with the disinfecting fluid, and a few aspersions, completely removed every trace of disagreeable odour. The experiments were continued for fifteen days, and the Board ascertained that no devolopment of obnoxious smell occurred before the third day, when it was easily suppressed by a fresh application of the fluid. The Board of Health announces its conviction, from these and other experiments, that we now possess a means of completely disinfecting all *lieux d'aisances*, and it has formally invited the Corporation of Paris to take immediate steps for applying this principle to the purification of the numerous charity schools and asylums throughout the city. The nitrate of lead possesses a much greater disinfecting power than the chloride of lime. It might, perhaps, be well to compare its powers with those of the chloride of zinc.—*Med. Times*, July 14, 1849.

335.—*Poisoning by Daphne Mezereon* By Dr Schwebes of Königsberg.—Cases of poisoning by the berries of mezereon are by no means frequent, notwithstanding their resemblance to the common red currant, and the frequency with which the plant is cultivated as an ornamental shrub in gardens. Experiments on animals have proved that these berries contain a very active poison. Mitscherlich killed a dog with twenty grains of the powder, and Linnæus saw a wolf killed by six of the berries. For these reasons, Dr S. deems the following case of sufficient interest for publication:—Two children, one a boy of four years of age, the other a girl two years old, rambled unnoticed into a neighbour's garden. On returning home, the boy complained of a sense of burning in the mouth, followed by nausea. He, of his own accord, attributed his illness to his having eaten some red berries which he had found on a shrub in the garden. Medical advice was immediately procured. Before Dr Schwebes arrived, milk had been given to him, and he had vomited freely, the vomited matters containing a quantity of the berries of the Daphne mezereon, some masticated and some entire. The child continued to complain of dryness and heat in the mouth, and of burning pain in the stomach. A reddish mucus was voided from the throat and mouth, but no abrasion or blister could be discovered on the mucous membrane. The inclination to vomit continued, but nothing was ejected. The pulse was regular.

The girl, who, according to her brother's statement, had eaten the berries as well as himself, was playing about the room, without manifesting any signs of indisposition. An emetic was given to each of the children; the boy vomited the remainder of the milk he had drunk, mixed with more berries. The girl

vomited after a longer interval, and ejected eight entire berries. On visiting the children in an hour afterwards, Dr Schwebes found both in a state of complete narcotism, with coma; there were convulsive movements of the eyes and upper extremities occurring at short intervals; the pupils were contracted, and scarcely sensible to the stimulus of light. It thus appears that the poisonous action of mezereon depends upon irritation of the brain and upper part of the spinal cord. The convulsions must be attributed to irritation of the intestinal canal through the sympathetic nerve, as in helminthias. By warm baths, cold affusion to the head, sinapisms to the extremities, and other appropriate treatment, the coma and convulsions disappeared, and on the following day both children had perfectly recovered. By way of experiment, Dr Schwebes gave six berries off the same shrub to a rabbit, which masticated and swallowed them; three hours afterwards the animal ate food that was put before it, and appeared none the worse for the poison which it had swallowed.—*Casper's Wochenschrift*, and *Med. Gaz.*

336.—*A New Method of detecting Arsenic in the Viscera, and in Organic Substances.*—M. J. L. Lassaigne boils the substances suspected to contain arsenic in a mixture of sulphuric and nitric acids, slightly diluted with water; the resulting liquid contains all the arsenic present, and has not the usual viscosity of the fluid matters to be tested. Solid matters may be treated in the following manner:—Having been divided into small pieces, they are boiled in concentrated sulphuric acid, until incipient carbonisation takes place; then, when cool, concentrated nitric acid in excess is added to the carbonised mass, and the mixture is boiled until the nitric acid is entirely decomposed. The residue is diluted with from five to six times its volume of distilled water; it is then filtered, and Marsh's test applied.

A weight of sulphuric and nitric acids, equal to the weight of the substances requiring analysis, is considered by M. Lassaigne to be the suitable proportion. This method M. Lassaigne has found to be completely successful in separating arsenic from even the smallest quantities of organic matter.—*Journal de Chimie Médicale.*

The process here described is objectionable, because it is incompatible with the employment of Reinsch's excellent test.—*Med. Gaz.*, May 4, 1849.

VI.—MATERIA MEDICA AND THERAPEUTICS.

337.—*Cod Liver Oil.*—The earliest trials of this remedy made on a large scale were those instituted at the Brompton Hospital; where it has now been given in many hundred cases. The results of all these are not given, but its effects are shown in 542 cases.

Of these 542 cases, 293 were in the first stage of the disease, and 249 in the second and third, or those stages subsequent to softening. Of those in the first stage, 190 were males, and 103 were females; 72 per cent. of the males, and 62 per cent. of the females, had their symptoms materially improved; in nearly 18 per cent. of the males, and in 28 per cent. of the females, the disease was arrested (the term *arrest* implies that all or nearly all the symptoms of the disease had disappeared, the patients felt themselves well and able to pursue their ordinary occupations); in 10 per cent. of the males, and in nearly 10 per cent. of the females, the disease progressed unchecked. Of the 249 patients in the second stage of the disease, 139 were males, and 110 females; in 53 per cent. of the males, the symptoms were materially improved, and in nearly 61 per cent. of the females. In a little more than 14 per cent. of the males, and in nearly 14 per cent. of the females, the disease was arrested. In a little more than 32 per cent. of the males, and in 25½ per cent. of the females, the disease was not arrested. Viewing these results collectively, we find in about 63 per cent., the symptoms improved; in 18 per cent., the disease was arrested; and in 19 per cent., it went on unchecked. When it is recollected that, of the whole number treated at this Hospital, the disease was arrested in only 5 per cent., the value of this remedy, under the use of which the disease appears to have been arrested in 18 per cent. of the cases, must be considered very great.

Different qualities of oil were tried, without exhibiting any marked difference in their remedial effects; but the offensiveness of some of the darker kinds rendered their general use impracticable. The oil now used is straw-coloured, transparent, and free from offensive smell. Patients in general take it without repugnance. The

dose at first is 1 drachm three times a-day for an adult; but it is gradually increased in some few cases to 1½ oz. for a dose. It is usually administered in camphor-water, any aromatic water, bitter infusions, milk, or any other agreeable fluid. When there is great irritability of stomach, it has been given in mucilage of gum with a few drops of hydrocyanic acid. In cases where there existed great anæmia and debility, and in those where the effect of the oil seemed slight, preparations of quinine and iron, especially the iodide, have been conjoined with advantage. It has appeared advantageous to intermit its use for a few days when nausea and feverishness, from whatever cause produced, are present. In certain cases the use of the oil has been continued during the existence of slight hæmoptysis, without producing any injurious results.

Other animal oils (not derived from the liver) and vegetable oils, were tried with a view of ascertaining how far their operation resembled that of cod liver oil. The experiments hitherto made have not shown them to possess the same powers; but they have not been as yet sufficiently often repeated to warrant decided conclusions.

One of the most striking effects of the use of cod liver oil is an increase in the patient's weight; with a view of showing the frequency with which this occurs, the gain or loss of weight was ascertained in 219 cases of consumption treated with the oil.

Taking both stages of the disease, and the sexes collectively, a gain of weight occurred in 70 per cent., a loss of weight in only 21 per cent., and in about 8½ per cent. the weight remained stationary. The amount of the increase varied, being in some patients little than more than one or two pounds during several months; whilst, in many, the average increase was from a pound to two pounds weekly during several weeks. Some very remarkable instances of great increase of weight presented themselves,—thus, in one instance, 41 pounds were gained in 16 weeks; in another, 19½ pounds were gained in 28 days, and 10 pounds in the succeeding 10 days; in another case, 29 pounds were added to the patient's weight in 31 days. It must be observed, that an amelioration of the symptoms did not invariably follow an increase of weight, though the exceptions were rare. An aggravation of the symptoms and a diminution of weight were almost invariable coincidences. In a few cases the symptoms improved, though the weight remained stationary, or even became slightly diminished. In other cases, where the amelioration was still more considerable, and the progress of the disease appeared to have been stayed, relapse occurred, and was followed by a rapid progress to a fatal issue. That such cases do occur requires to be remembered, in order to restrain too sanguine expectations, and to prevent the remedy from falling into the discredit which disappointment after an unlimited confidence may induce. On the other hand, without entering into a description of the successive steps of amelioration experienced by patients, it will suffice to say, that many of the cases included in the 18 per cent., in whom the disease is marked arrested, felt themselves as well as they had been before the attack of the disease.

From these facts, no other conclusion can be drawn than that cod liver oil possesses the property of controlling the symptoms of pulmonary consumption, if not of arresting the disease, to a greater extent than any other agent hitherto tried. —*The First Medical Report of the Hospital for Consumption and Diseases of the Chest, by the Physicians of the Institution. London,* 1849.

338.—*Iodine in the Treatment of Snake-Bites.* Dr Whitmire states (*North-Western Med. and Surg. Jour.*, Jan. 1849), that he has used the tincture of iodine in cases of the bites of the rattlesnake, viper, and copper-head, in both man and beast, with the effect of putting an entire stop to the swelling and pain of the bitten part, in from twelve to sixteen hours. He paints the bitten part over the whole swelling with three or four coats of the tincture twice daily, and should the swelling extend, which it almost always does after the first application, if made soon after the infliction of the wound, he repeats the application. The third application puts a stop to the extension of the swelling, and three or four more will generally restore the limb to its natural state, except, perhaps, sensibility to the touch, and soreness of the muscles.—*American Journal of the Medical Sciences.*

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CONTENTS.

I.—ANATOMY, PHYSIOLOGY, AND PHYSIOLOGICAL CHEMISTRY.

339.—*Congenital Closure of the Rectum, with which the Infant lived five weeks.* By Mr GEORGE, of Kensington.—The child, a male, was born on the 10th of May. On the 12th, as no meconium had appeared, an enema was attempted to be thrown up, but returned. On then making an examination per anum, the finger could not be passed farther than an inch, where the rectum appeared to terminate in a pouch, resembling the finger of a glove. No hardness or protrusion could be felt beyond this. The abdomen had increased in hardness, and was somewhat distended. The urine was voided freely, and was quite natural.

It was explained to the parents, that the only hope of relief was the chance of the gut becoming distended, and felt presenting within the rectum, when an operation might be successful.

Up to June 12th, the infant continued free from pain, and lived in perfect comfort. Sir B. Brodie saw the case with Mr George, and agreed that nothing could be done, as no protruding bowel could be felt. The infant now became restless, the abdomen became much distended, the feet œdematous, and the urine passed in drops only; and death took place on the 14th, exactly five weeks after birth.

The following is Mr George's account of the post-mortem appearances:—

"The chest and superior extremities were emaciated, the abdomen much distended, the legs œdematous, especially about the ankles.

"On opening the cavity of the peritoneum, a considerable quantity of serum escaped; the great intestines were much distended; the omentum greatly attenuated, covering only the transverse colon; the bladder very prominent, and greatly distended with urine. On examining the alimentary canal, the stomach was found to be very small, about the size of one of the kidneys. The duodenum and jejunum were natural, but the ileum gradually increased in diameter towards its termination, with patches of inflammation throughout its extent. The colon was much distended, and contained a great quantity of yellow feculent matter, which was deposited in masses, having large interspaces of intestine blown out with air, but nothing like meconium was present. Towards the sigmoid flexure the fæces increased in quantity, and the gut there ended in a blind pouch, exactly opposite the base of the sacrum, occupying the greater part of the false pelvis behind the bladder. This pouch was held in place by a continuation of the meso-colon, which was attached to the sacrum, and from thence the peritoneum passed down into the true pelvis, forming a fold similar to

the meso-rectum attached to the anterior surface of the sacrum; but there being no rectum in this situation, it was reflected from the fore part of the sacrum on to the posterior surface of the bladder; and in this fold, or its reflection, no trace of gut or ligament could be found communicating with the pouch above, or rectum below. The only portion of rectum existing, was about three-quarters of an inch in length from the anus, and terminated in a cœcal puckered extremity, which was attached to the under surface of the prostate gland by some small fibrous bands and cellular tissue. The kidneys were large and lobulated; the ureters, in the upper two-thirds of their course, were distended with fluid to the size of the small intestines of a healthy infant, and were almost transparent; but in the lower one-third, they had a natural appearance. The remaining viscera were healthy."—*Lond. Med. Gaz.*, August 17, 1849.

340.—*Influence of the Mental Impressions on the Fœtus in Utero.*—After relating the case of imperforate anus given in surgical department of this Retrospect, Dr Hooper continues:—"I have no doubt that many cases of malformation are primordial; but facts prove that they are frequently the consequences of strong impressions upon the mind of the mother during gestation; and it is perhaps well that this opinion should prevail, in order to protect pregnant women from all hazardous and disagreeable occupations, and to secure for them more tenderness and indulgence than could be allowed in the common routine of life. The mother of my little patient, who is a very intelligent lady, suffered from *Ischuria vesicalis* at an early period of gestation. It caused her much distress, and no little mental anxiety, She endeavoured to glean information upon the subject from an encyclopædia, and among the causes of this disease in infants, this malformation was mentioned, and, as may be supposed in a nervous lady, was likely to excite fear lest her offspring should labour under this calamity. She reasoned with herself, but could not shake off the impression.

"Some years since, a lady in this neighbourhood, after giving birth to a fine child, asked me to look at the upper lip. On doing so, it presented the appearance of a well-united hare-lip; the marks of the pins were evident. About the second month of pregnancy she saw a child who had been successfully operated upon for hare-lip.

"A lady, a relative of mine, while pregnant with a boy, pinched her right thumb between the door and door-post; the accident caused her much pain. She was so firmly convinced her child's right thumb would be marked, that at the birth she desired the nurse to look at it, and this member appeared as if its lateral growth had been impeded by a vice, and had more the character of a finger than a thumb. He is now a man, and the deformity continues.

"Dr Wood, my predecessor, attended a lady in her confinement, who had frequently, anterior to the birth of her child, affirmed, 'that it would be marked with blood on the hand.' About the third month of gestation, she was much frightened by a servant entering the kitchen with her hands reeking with the blood of a goose just killed. The child she bore was a girl, who is now the mother of a large family. One hand has livid spots, and, when warm, has exactly the appearance of blood having been sprinkled over it. None of her children have this mark. About eight years since, a carpenter's wife, of the name of Brand, was walking from Throcking to Chipping (two villages in this neighbourhood) during the early period of gestation; as she was passing a plantation of firs, a wild duck flew out; its sudden appearance, together with the peculiar noise those birds make, alarmed her exceedingly; she saw the bird distinctly, and stood in an attitude of despair, with her hand clasped for some minutes, before she could proceed. Until her accouchement she continued to labour under the effects of this fright; indeed, she was an invalid during the whole period, and never without the impression that her child would have some deformity. Two surgeons were with her when she gave birth to a boy; she solicited them immediately to examine it; the fingers and toes were united by skin, and the nails had more the appearance of claws. When I first saw him he was advanced in life, and was clearly web-footed and web-fingered; but, to give more freedom to the hand, the thumb and index finger had been partially separated by a surgeon when he was a boy. He had one son with the same malformation, whom I also saw. There can be no doubt of the aboriginality of the latter."—*Med. Times*, Aug. 18, 1849.

In the "Dublin Medical Press" for August 22, the following instances are related:—

Mrs B., when six months advanced in pregnancy, was present when Mrs A. was delivered of a male child, with a severe hare-lip and cleft palate towards the left of the mesial line. She saw the child on two or three subsequent occasions, but

experienced no apprehension. Three months afterwards she gave birth to a female child, quite perfect, but from the septum of the nose extending downwards to the left of the mesial line, and through the thickness of the labial convexity, the outline of a hare-lip was perfectly distinct. The hard and soft palates were perfect and natural.

A lady, then about six months pregnant, received from her husband, in an attack of night-mare, a violent blow on the right eyebrow, producing extensive ecchymosis. She frequently alluded to the circumstance, expressing her fears that the child would be marked; and, accordingly, it was born at the full time, with a tumour on the superciliary ridge, afterwards requiring a slight operation for its removal.

To those who believe that there is anything in such cases beyond mere coincidence, we may recommend a perusal of the article "Generation," by Dr Allen Thomson, in the "Cyclopædia of Anatomy and Physiology."

II.—PRACTICE OF SURGERY.

341.—*Case of Imperforate Anus—Successful Operation on the third day after Birth.* By JOHN HOOPER, M.D.—The wife of a clergyman was delivered, on June 16th, 1849, of a fine boy four weeks before the full time of utero-gestation. On the 18th, the bowels not having acted, the perineum was examined, and the anus found to be perfectly occluded. There was no corrugation of the skin at the part, and no intumescence. A crucial incision was made to the depth of half an inch, through solid parts, without reaching the rectum. As the abdomen was not distended or painful, farther operative procedure was delayed till next day, when the lower part of the bowel would be more likely to be distended. On the 19th the bowels were distended; the child suffered much from pain and straining, and meconium flowed from the urethra after the urine. The operation was performed as follows:—

"The infant was placed on the lap of the nurse, opposite the window, and held in the same manner as for the operation of lithotomy, with the shoulders low, and pelvis elevated by a cushion. An incision was made through the skin, in the exact line of the raphé, one inch in length; the incision was continued to the depth of an inch and three quarters, through the integuments, not in the axis of the pelvis, but along the concavity of the os coccygis; no vestige of the sphincter muscle or levatores ani could be seen; the substance cut through was evidently fat, with two or three nuclei-like lymphatic glands. I now introduced the index-finger of my right hand, but could not feel the distended rectum. The instrument used was a small scalpel; the edge was directed backwards.

"I continued the incision until the diminished resistance indicated that I had reached the cellular tissue: the scalpel was laid aside. On introducing my finger to the bottom of the wound, which was now as deep as the finger could reach, the rectum could be indistinctly felt. I now introduced a director, up the groove of which I passed a straight bistoury; the point was turned obliquely upwards and backwards, to avoid wounding the bladder; the director was removed and pushed a little higher, when it entered the cavity of the rectum, which there was no doubt about, as the meconium began to flow. The handle was now raised, and the blade withdrawn; the intention of raising the handle was to enlarge the internal incision. The meconium began to flow freely. Injections of warm water were now thrown up with one of Sir Charles Clarke's syringes to wash out the intestines. During the operation the child's penis became erect, and ejected *first* a clear stream of urine, then meconium. On injecting the rectum, some of the water, discoloured with meconium, flowed through the urethra. I now introduced some fine lint, smeared with *ceratum simplex*. A quantity of air passed through the new passage; the abdomen became less inflated. During the operation the exit of wind by the urethra was audible to all in the room, and made a peculiar noise."

Some hemorrhage occurred in the evening, which was easily restrained by the application of cold. Meconium passed both by the wound and urethra, and the child slept soundly, and the bleeding had ceased finally by morning. On the 21st the abdomen was distended, more meconium passing by the urethra than by the wound.

"I tried to introduce a bougie about two-eighths of an inch in diameter, and it would not pass into the rectum; I introduced my silver director, and tried to dilate the opening into the gut; some rather consistent fæces passed, but it was evident

that the internal opening was not large enough; I now passed the straight bistoury half an inch higher than before; on withdrawing the instrument, a well-formed dark evacuation, about two feet in length, passed easily; the rectum was well injected with warm gruel; bowels were well emptied; the latter part of the dejection was perfectly yellow."

On the 23rd the bowels had acted well three times since last report. No offensive matter from the urethra. A bougie, nearly an inch and a-half in circumference, anointed with cerate, was easily passed four inches and a half. A warm gruel injection was given. Urine alone flowed from the urethra after the 27th; the bowels acted regularly, and the larger bougie continued to be introduced into the rectum twice a day up to the 15th of July. It was then omitted for three days, during which the opening had contracted so much, that it was at first re-introduced with difficulty. From this time the introduction of the bougie was regularly continued twice a-day up to the 30th, when the patient was reckoned convalescent. Fungous granulations appeared at the opening, and were touched with nitrate of silver. Sponge tents had been tried two or three times instead of the bougie, but they caused pain, and were soon forced out; and Dr Hooper prefers the use of the bougie for preventing the contraction, to which there is so great a tendency.

Dr Hooper continues: "An imperforate anus has generally some preternatural outlet, either by urethra, vagina, navel, or groin. There is an extraordinary instance of such accommodation mentioned in 'Samm. Med. Wahrheiten,' b. viii. p. 29. A girl who from birth had an imperforate *anus* and *meatus urinarius*, and to the age of fourteen had regularly discharged her urine by the breasts, and her fæces by vomiting.

"Two cases of imperforate anus were communicated by Dr Keiller to the Edinburgh Obstetric Society; the first was operated on with temporary relief; in six weeks the operation was repeated thrice, when fæculent matter ceased to pass by artificial anus; it became obliterated, and the matter passed by the urethra. This ended in a complete stoppage of the fæces and urine. Death supervened. The post-mortem evinced, that at each operation the cut had been made into the urinary bladder, into which a small and imperfect gut had been found to terminate. There was no regular rectum or sigmoid flexure. In the second case the child lived twelve weeks, and evacuated the fæces by the mouth. No operation was attempted. The colon terminated in a *cul-de-sac*, which floated loosely among the intestines in the umbilical region. These cases evince that there must generally be a doubt whether you will find the rectum; therefore we cannot always expect so fortunate a result as in my case."—*Med. Times*, August 18, 1849.

342.—*Excision of the Clavicle.* By H. G. POTTER, Esq., Surgeon to the Newcastle-upon-Tyne Infirmary.—The following case is related in the *London Med. Gazette* of April 6, 1849:—"Agnes Thompson, æt. forty-two, married, and the mother of several children, was admitted into the infirmary, Sept. 21, 1848. She stated that her health was very good until about ten months ago, when she was much debilitated by continued night-watching, in consequence of illness in her family. She then felt, for the first time, rheumatic pains in the left arm, but did not notice any enlargement of the clavicle until between three and four months afterwards, when she perceived a small firm swelling about the middle of the bone. From that time the tumour has gradually increased in size, attended with lancinating pain, which is always worse at night, and prevents her from sleeping. The pain now extends down the arm, and has so impaired the use of the limb, that she is unable to perform her household duties. This pain, and consequent loss of sleep, have greatly injured her health, and she has now a very cachectic appearance.

"The middle portion of the left clavicle was much enlarged, and painful to the touch; it had a firm and inelastic feel; about an inch at each extremity was free from swelling. There was no evidence of any syphilitic taint in the system, nor did it appear that there was any hereditary tendency to disease in the family. Liniments and various other remedies had been tried, without any good effect. Leeches, and the internal use of iodide of potassium, were now tried, but no improvement took place; and, on the 31st of October, the tumour seemed even larger than it was a month before; it was also more painful.

Fearing that the disease might be malignant, and finding that the patient's health was daily becoming more impaired, Mr Potter determined to remove the bone without further loss of time. The following operation was therefore performed:—

"An incision, commencing at the sternal end of the clavicle, was continued throughout the entire length of the bone. Two other incisions were next made at

right angles to the first, at about an inch from each end, and the flaps carefully dissected back. An aneurismal needle, armed with a stout thread, made fast to the eye of a fine chain-saw, was now passed beneath the clavicle, at about half an inch from its sternal end; and the saw by this means introduced below the bone, which was then sawn through. Disarticulation of the acromial end was next effected, and a loop of string fastened to the bone, so as to raise it up while the remaining portion was separated from its attachments. No vessel of consequence was wounded, and no ligature was required. On examining the bone after removal, the disease was found to be caries, which had extensively affected the under surface. It was also found that the whole of the diseased portion had been taken away. About half an inch of the sternal end was left attached to the sternum. No pain was felt during the operation, chloroform having been administered with perfect success. The lips of the wound were brought together with sutures and straps of plaster, over which lint, dipped in cold water, and a bandage, were applied. The arm was also properly secured to the side. The patient rapidly recovered, and left the infirmary in a month. On the 15th March, she was in a condition to go through her household duties, and felt her arm becoming every day stronger. There was no sinking of the shoulder, and, except when closely examined, no appearance of disfigurement.

[This is at least the third case in which nearly the entire clavicle has been removed. Previous to this the inner and outer thirds of the bone had been removed; the former by Mr Davies, in a case related by Sir A. Cooper, in which the bone had become gradually displaced backwards, so as to interfere with the œsophagus; the latter by Velpeau, for necrosis. A case is related by S. Cooper, in which Dr Mott of New York removed nearly all the clavicle, on account of a large osteo-sarcoma, a small part only at the acromial end having been left; and Mr Syme has related a case (Pathology and Practice of Surgery), in which he removed a similar extent of the bone on account of a tumour, involving the greater part of its length, the acromial end of the bone, to the extent of an inch, being purposely left with the view of causing less injury to the connections of the shoulder. Mr Syme remarks—"The only part of the operation in the slightest degree difficult or embarrassing, was in separating the large articular surface of the bone from its connections, where the vicinity of the pleura and venous trunk rendered extreme caution requisite."

In Mr Potter's case no ligature was required. In Mr Syme's three small vessels were tied. In Dr Mott's forty ligatures were applied, and the external and internal jugular veins were tied and divided. All the patients did well.]

343.—*Paralysis of the Bladder cured by Galvanism.*—An interesting case of this kind recently occurred in the practice of M. Monod, surgeon to the Maison de Santé. A woman, fifty-seven years of age, labouring under an incurable disease, endeavoured to commit suicide by means of charcoal fumes. She was relieved in time, but an obstinate paralysis of the bladder remained. M. Monod suggested a trial of galvanism to the neck and fundus of the bladder. On the first application the patient was enabled to make water without assistance, and her recovery was rapid.—*Med. Times*, July 14, 1849.

III.—MIDWIFERY, AND DISEASES PECULIAR TO WOMEN.

344.—*Case of Twins of Extraordinary Size.* By Dr Bertolet, of Oley, Pennsylvania.—"Early on the morning of the 15th of April 1848, I was requested to meet Dr Thompson in consultation, at five o'clock, in the following case:—

"Mrs A. H., in her sixth labour, was seized with regular pains at ten o'clock on the previous morning, and at two o'clock, after having been in labour four hours, was delivered of a fine vigorous female child. The vertex presented to the left acetabulum, and the infant, after it was born, weighed *nine and a-half pounds*. The labour pains then ceased for a time, but soon recurred with increased violence. Upon examination, the right hand of another child was discovered high up in the vagina; this was returned within the uterus, after which the vertex presented very nicely in the second position at the posterior strait. We now had hopes that all further assistance would be unnecessary; but after waiting for a considerable time, the head still continued in exactly the same situation. There had been a constant flow of blood from the time the first child was born, and the patient's strength was becoming exhausted. I succeeded in applying the *long forceps* after

some difficulty, and soon delivered the lady of a male child of unusual size; it was still-born, and weighed *eleven and a quarter pounds*—making an aggregate weight of twenty and three-quarter pounds contained in the uterus beside the secundines.

"After the second delivery, the hemorrhage ceased, and no unpleasant symptom occurred to retard the quick recovery of the patient. Both mother and child are now perfectly well.

"Mrs H. has had, previously to the above, five natural labours, and two abortions, immediately preceding her last accouchement. All this took place within twelve years; if she had been safely delivered at full term in all these cases, therefore, she would have had nine children."—*Phil. Med. Examiner.*

345.—*Superfœtation and Mixed Births.*—Dr Thomas B. Taylor relates the following as a case of superfœtation. Clarissa, a negress, the property of Mr A. Knox, aged about thirty-five years, in May last was delivered of twins; one a mulatto and the other a negro child. She had been married to a negro man on the plantation, of delicate constitution, for many years, and had several children by him. Her menstrual discharge had occurred for several months previous to her pregnancy, at about the full of the moon. She felt herself pregnant by her customary signs, about the middle of the month; and, to confirm her suspicion, at the next period it did not appear. About three weeks from the time she first felt she had conceived, and one week after her menses had failed to appear, she had sexual intercourse *once* with a white man. She slept with her husband every night—had connection with him the night before she had intercourse with the white man, but not on the same night. At their birth, the mulatto child bore marks of being at least three weeks younger than the negro; thus sustaining the woman in her suppositions as to the time between her two conceptions. This woman is a faithful servant, and I have every reason to believe she told the truth, in relating the circumstances of her case to me."—*American Journal of the Medical Sciences*, 1849.

346.—*Obesity, simulating Pregnancy. Caution in the Diagnosis of Pregnancy.* By Dr Leopold Schönburgh.—Mrs ——, whose husband had been separated from her by imprisonment upwards of three months, after exposure to cold, experienced all the symptoms of pregnancy. She was a modest and virtuous woman, and believed herself to have been three months pregnant. In about eight weeks more she believed she felt the movements of the child; the abdomen continued to increase in size proportionably. At the end of nine months her abdomen presented the appearance of the full period of gestation, but she had not felt the supposed fœtal movements for several weeks. The catamenia now returned regularly at each month; her health was good, and the size of the abdomen again decreased to the size of about five months' pregnancy. The umbilicus was depressed, the parietes felt doughy, free from fluctuation, the hands could be pressed below them four or five inches downwards towards the spine, and could be made to meet together beneath the fat integuments; the uterus could be felt somewhat enlarged in the hypogastric region. On examination per vaginam, the os uteri could be readily reached; it was soft, and seemed swollen; two lateral cicatrices could be perceived on its surface. The cervix uteri was rather more than half an inch in length. The posterior wall was soft and rather tender; pressure on the abdomen could be felt to depress this organ. The mucous membrane of the vagina did not present a bluish, but the ordinary red colour.

It was clear that no pregnancy existed in this case, but that the suppression of the catamenia by cold had given rise to the rapid development of fat, and congestion of the pelvic viscera, with the consequent enlargement of the abdomen.—*Casper's Wochenschrift*, March 1849.

347.—*Effects of the Moral Treatment of Hysterical Fits.*—A young lady, who had met with a very severe disappointment, was placed under our care. She was twenty-three years of age, and hereditarily predisposed to the disease on both sides. It manifested itself by an excited state of mind, with startings and restlessness, and she had frequent hysterical fits. Every attention had been paid to her health before she quitted home, but having attempted to throw herself out of the window, it was deemed proper to remove her from the scene of her excitement. She was cheerful and clever, and very susceptible of admiration. When she first came, she stated that her fits were so frequent that it was not right for her to go to church; but as they were really not violent we observed to her that it was always the rule of the house to go to church, and that if the fit came on there, we should be obliged to call for the assistance of the beadle to take her out; and that she would thus make herself very con-

spicuous. After the service of the first Sunday, she observed, on coming home from church, that she was very nearly attacked indeed; and it was remarkable that she never had any fit at these times afterwards. We took courage from this, and hoped the time would come when the fits would disappear, not only at church, but altogether, by a similar method of treatment. One day, while at dinner, her knife and fork dropped suddenly into her plate, and she was simultaneously upon the floor. There were several at the table, and the servant was requested to give no heed to the lady. After a few minutes had passed away, a gentleman who was at the table, whose pharmaceutical knowledge would never make his fortune, feeling a little nervous about the issue of the case, rather anxiously suggested that she should have some *Epsom* salts—meaning, no doubt, to say smelling salts, given to her. This was quite enough. She laughed very much, and resumed her place at the table, and all went on as before. And it is very pleasing to be able to add, that for the few months longer she remained with us, she experienced no return of the fits either at church or at home; her irritability and oddness of manner went off, and she continued well. This is now eighteen years ago, and there has been no actual return of the threatened malady, though she has been extremely nervous at times, many sorrows and trials having attended her. If these fits had been neglected or encouraged by bad management at the first, the probability is she would, with all the predisposing circumstances of the case, have been the subject of insanity at the present time.—*Dr Burnett on Insanity.*

IV.—PSYCHOLOGICAL MEDICINE.

348.—*Prevention of Insanity.*—In addition to the avoidance of all the causes of insanity which have already been mentioned, the prevention of the disease must be sought in measures calculated to prevent re-attacks, and also its development in those hereditarily predisposed to it. Under the same head of prevention, we also wish to include means for arresting the disease in its incipient stage, and for this purpose it will be well to understand that insanity often commences in a very insidious manner.

Some appear to be deranged only as regards their feelings or moral qualities. They are noticed to be different from what they formerly were; to be more restless and sleepless, or unnaturally morose and irritable. Some manifest an unfounded dread of evil, say but little, shun society, and are suspicious of their dearest friends and relatives; while others are unusually vivacious and pleasant, or quarrelsome and abusive. Such changes of character and habits will usually be found to be subsequent to some reverse of fortune, loss of friends, or sickness, and should excite alarm. Persons thus affected will converse rationally, and in company or before strangers will conceal their peculiarities, and thus are known to be insane but to a very few, until some violent act leads to an investigation, and then it is found they have long been partially deranged. This is the case with most of those who commit suicide. They are known to be melancholy, and a little insane, by their nearest friends, who, however, often conceal the fact until after the catastrophe.

Often insanity exists in a slight degree for months, and, as we have said, is only noticed by the most intimate friends or relatives, and then *suddenly* assumes an alarming form, leading in some instances to homicide, and in others to self-destruction. Of the latter, almost every newspaper contains accounts, and of the former we have known many instances.

A considerable number of cases have fallen under our observation of mothers killing their own children. In most of these cases, the insanity previous to the act, though known to exist, was slight, and no particular danger was apprehended. In some of these instances the act seemed to have been committed from a sudden impulse; in others, it was premeditated, and done for the purpose of securing the happiness of the child; and also, in one instance, to procure the death, by execution, of its mother, who wished not to live, but was unwilling to commit suicide. Contrary to our expectations, several of these cases have recovered, and been well and with their friends a number of years. Two of them have since become mothers, and still continue to enjoy good health.

Such deplorable occurrences make known to us, not only the extreme danger of permitting the insane to be left unguarded in families, and to have the management of children, but also the almost criminal neglect of their guardians, in not endeavour-

ing to effect their restoration in the early period of the disease. A kind and affectionate mother, who, in a paroxysm of insanity, killed two of her children when left alone with them, has recently been admitted into this asylum. She is now apparently sane most of the time, and has a clear recollection of what she has done. In a recent letter to her friends she says: "Had I been brought to the asylum last year, when I ought to have been, I might now be at home and happy with all my dear children."

The suicidal form of insanity often exists in a slight degree for a long time, but unfortunately attracts little or no attention; and hence the frequency of suicide, which in this State has become truly alarming.

Surely all must see the urgent necessity of attention to the first symptoms of mental derangement, especially when accompanied by gloom and despondency, or consequent upon misfortune, loss of relatives, or sickness. In such cases, even when the mental disorder is slight, the friends should be as anxious and ready to seek a remedy, as in attacks of other diseases. Often the advice of a judicious physician, with a little medicine, with change of business, or a journey, will effect a cure.

The *recurrence of insanity* might often be prevented by proper care. This fact we consider it important for the community to know, and also that *re-attacks* are very common. We are often surprised at the apparent thoughtlessness of the friends of the insane, and their neglect of the precautions necessary to prevent a relapse. Thus, not unfrequently, those who have here recovered are returned to their homes in a manner likely to injure them,—exposed to cold, and to excessive fatigue by riding too far in one day, and by being deprived of their rest by journeying in the night. Some are permitted to recur to those habits and practices that are known to cause or perpetuate the disease from which they have just recovered; such as the use of stimulating drinks, the excessive use of snuff, tobacco, or strong tea. Others are permitted to attend and take part in exciting political and religious meetings, and to be out late at night.

In this connection we shall be pardoned for respectfully mentioning our apprehension that the study of insanity is too much neglected by physicians engaged in general practice. We have no hesitation in saying, that if the physicians of the country were fully aware of the importance of this subject, and would as thoroughly study insanity as they do other diseases, and exert themselves to prevent by timely advice, and to arrest it in its early stage, that they would do those predisposed to insanity, and the insane themselves, an amount of good unequalled by that of the asylums of the country. They should understand and be able to recognise its earliest symptoms; for, as has been said, insanity often, and we believe we may say most generally, exists in a slight and scarcely perceptible degree for months before it is generally noticed. They should know how liable many are to this disease from hereditary predisposition, from previous attacks, long-continued menorrhagia, or other diseases; from repelled eruptions, and extreme nervous susceptibility; and be able to advise such, and warn them in time of impending danger. How many cases of puerperal insanity, or of that insanity that comes on after childbirth, might be prevented by timely precautions, by quieting the fears of the timid and desponding; by such advice and suggestions to those who are about to become mothers, and to their husbands and friends, as will prevent the occurrence of any sudden or severe disappointments during, or soon after, travail. Those predisposed to insanity, or who have suffered from a previous attack, should be particularly advised and guarded. When, however, insanity does supervene, as it frequently does after childbirth, it may often be remedied by proper treatment without removal of the patient from home; as this is a matter of great importance, we beg leave to suggest to medical men the importance of thoroughly studying it. One of the best, as well as most recent articles on puerperal insanity which we have seen, is that by Dr MacDonald, in the *American Journal of Insanity* for October 1847. It is well worthy of attentive perusal by all engaged in the practice of the medical profession. — *Report of the New York State Lunatic Asylum.*

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