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ORIGINAL COMMUNICATIONS.

ART. XXXV.—*Cases of Heart Disease.* By A. F. Holmes, M.D., Professor of Medicine, McGill College.

Among the remarkable deviations from normal structure which pathological anatomy continually brings to our view, there is none more singular than the obstructions to the circulation, which are frequently observed in the orifices of the heart. *A priore*, we should readily allow that life might be continued, notwithstanding a considerable co-arctation of those outlets; but even then we might expect considerable disturbance of the system. Such we find to be the case in numerous instances, but observation has shewn, that very great difficulties occur in endeavoring to predicate the amount of heart disease from symptoms, or from physical signs. One case will exhibit all the distressing effects of impeded circulation, when the amount of obstruction is by no means great; while in other cases, life may be continued, and even enjoyed, with a degree of constriction that subsequently creates wonder as to how life had been sustained. Nature has providently applied a remedy to the unforeseen impediments which arise in the arterial and venous systems. The universal interlacing of the smaller branches of the larger trunks, and their numerous anastomoses amply explain the little inconvenience experienced from the obliteration not only of a principal vessel of a limb, but of the aorta itself. It is true, a certain time is required for the completion of this process; but the successful operations for aneurism of the extremities demonstrate the shortness of the time required in those parts to repair the injury which the circulation has sustained. Although Surgery has not shown the same thing in regard to the aorta, yet experiment and pathological anatomy have abundantly. The well-known experiment by Sir A. Cooper of tying the aorta of a dog (which was subsequently killed, when the animal had entirely recovered its health,) proved the possibility of the fact: and although the similar experiment by

the same eminent surgeon on the human subject did not result in success.* this may be attributed to other causes than its impossibility, since numerous cases are on record of the total obliteration of the great vessel. I refer for examples to Graham, Craigie, Hasse, and Rokitansky, the latter of whom points out the almost normal mode in which obliterations take place, just below the arch of the aorta. In all these instances, however, collateral circulation had been established; the abnormal changes had occupied probably a long time in their progress; the system had gradually accommodated itself to its altered conditions. We can, then, easily understand how interruptions of the vascular system can be borne with and overcome; but the reasons which are satisfactory in this case are inapplicable, when we apply them to explain the extraordinary amount of narrowing, sometimes almost occlusion, met with at the orifices of the heart.

The foregoing ideas have been suggested by the occurrence of a case which I offer to the Journal, not because it exhibits any novelty, but because it adds to the number of facts from which useful deductions may be drawn.

Case I.

Tricuspid Segments united—Mitral calcified and contracted.

On February 28th, 1853, I was asked to visit a young gentleman (A. K.,) who had been suffering under an attack of acute rheumatism, gradually increasing in severity for about a week. I found him complaining of much pain, and the other usual symptoms. There was no particular indication of the heart being implicated, yet upon applying the stethoscope, a loud endocardial murmur was perceived, accompanying the first sound, but loudest towards the heart's apex. Colchicum was ordered, and acted so beneficially as quickly to break up the complaint, and he convalesced rapidly—the murmur, however, had not disappeared when I ceased to visit him. At that time it was considered to be owing to rheumatic affection of the heart, but, since his death, his history has shewn that some degree of heart disease must have been of much anterior date. Previous to his 3d year he was a healthy, fat child; he then had severe hooping cough, after which he remained thin and delicate—at the age of six he had chorea, not severe, but very protracted, lasting about three years. It was observed, that, though cheerful and playful, he would never exert himself like other children, but remain looking on

* Sir A. Cooper ligatured the aorta in 1817, in a case of inguinal Aneurism in which the patient was bleeding to death—the patient survived 40 hours; and a sufficient circulation was established in the sound limb. The same operation has been repeated three times with a similar unsuccessful result. The last time by Dr. Monteiro of Rio Janeiro approached nearest to success, the patient lived ten days, and died not from want of circulation, but from secondary hemorrhage.—See Erichsen's Surgery, P. 499.

and enjoying the fun in which he would not take a part. For a number of years, he had had a dry cough often severe. There was observed from childhood a peculiarity in his breathing, which continued till his death. His inspirations were made by a double effort or sob, or catching of the breath. But though unwilling to run or use hard exercise, his family had never remarked, nor did he complain of any difficulty of breathing.

During the first part of the summer, he was remarked as being in better health than usual, but in the month of September, he began to complain of shortness of breath which prevented him from walking fast or far. It was found that just before this he had walked three times out to the Mount Royal Cemetery (which is an ascent most of the way), and had observed after the last walk, that it had fatigued him so, that he would go no more.

In December last he called on me and related his symptoms, and I prescribed for him. On 18th January last, in the evening, I was requested to see him. Anasarca had begun to show itself. He had remained in bed all day, but had been unable to sleep from incessant coughing. His pulse was 120, regular, though it was stated by his brother, a medical student, that there was an occasional intermission. Breathing very rapid, but no oppression or difficulty of lying down. On examination the murmur was as before. He continued much the same till the 22nd, when slight delirium commenced, which gradually increased. On 23rd he spat up small quantities of black blood, became drowsy, and died at 1 a.m. of 24th.

Autopsie.

Lungs healthy, except that apoplectic effusion has taken place in several spots. The portions occupied by the clots, which were firm and granular when scraped, were especially the thin edges. The lower and anterior part of the left lung showed two, the right three of these deposits, one of which was about three inches in diameter. A small quantity of fluid was found in each pleural sac. The pericardium contained upwards of one ounce of fluid, was healthy, without any evidence of recent lymph. Heart was large, and on surface of right ventricle an ordinary white spot was seen.

The following description of the heart has been drawn up by Dr. McCallum, Demonstrator of Anatomy to the College:—

Right Side.—The auricle is very much dilated, the cavity being quite capable of admitting a large sized orange. Its walls are hypertrophied, measuring in some places 3 lines. The tricuspid valves are thickened and white; their contiguous edges are firmly and closely united, thus forming one continuous fold, which, indeed, presents the appearance of

a membranous diaphragm, with a central circular aperture, stretched between the auricle and ventricle. The central opening measures, in diameter, eight lines; and the edges, which are well defined, support at various points vegetations about the size of a large pin's head. There is insufficiency of the valves, a permanent patency being the result of the changes which have taken place in their structure. The cavity of the ventricle is dilated; its walls are hypertrophied, measuring at base seven lines. The chordæ tendineæ are increased in size, and the columnæ carneæ larger than in the healthy heart. The pulmonary semilunar valves do not exhibit the slightest trace of disease.

Left Side.—Auricle dilated. Mitral valve has been converted into an agglomerated calcareous mass, which measures, at the point where the valve is connected to the fibrous ring surrounding the auriculo-ventricular opening, fully half an inch in thickness. A portion of the endocardium on the auricular aspect of the larger segment of the valve is abraded, exhibiting the irregular, gritty, amorphous deposit, which, at all other points, is covered by the serous lining of the heart. The opening from the auricle to the ventricle is greatly constricted, admitting merely the introduction of the handle of a medium sized scalpel through it. The chordæ tendineæ are shortened and very much thickened; and the fleshy columns much increased in dimensions. The ventricle is dilated and hypertrophied; its walls measure at the base, 10 lines. The aortic sigmoid valves are thickened and white. They are, however, quite capable of performing their functions.

In this description, the points most note-worthy are, the adhesion of the three portions of the tricuspid valve so as to form a diaphragm between the auricle and ventricle with a circular opening; and, secondly, the extreme arctation of the mitral orifice.

It is well known that structural alterations of the right side are rare in comparison of those of the left, and for this reason they have, perhaps, an increased degree of interest, which makes a record of them advantageous; and, although not bearing immediately on the subject of this paper, which is the *narrowing* of the orifices, it does not appear irrelevant to notice them as more or less obstruction is generally combined with other lesions. Several cases are on record. Bertin gives the case (case 55*) of General Whipple, who suffered for a long time from palpitation on least exercise, great anxiety, and continual coldness of extremities. The auricle was found dilated, the tricuspid valve was ossified, and closed the auricular orifice so as to leave only two holes at the free edges of the valve united by a fissure an inch long and about one line broad—a third

* Treatise on disease of heart translated by C. W Chauncy, M. D.

hole existed towards the base of the valve. Another case (54) presents an extraordinary amount of disease, the tricuspid, mitral and aortic valves being thickened and calcified with consequent great contraction of the orifices. The tricuspid valves were hard, thickened, united together by their edges and formed a kind of cartilaginous septum, pierced in the middle by a hole which scarcely admitted the little finger.

Bertin remarks on the great rarity of induration of the tricuspid valve and the still rarer occurrence of its calcification, so rare indeed that Bichat denied that it could occur on the right side, in which opinion he has been refuted by facts.* Bertin remarks "during 20 years we have not collected more than four cases of such hardening (cartilaginous);—we have never had an opportunity of seeing those concretions of calcareous phosphate, those ossifications we have so frequently spoken of in the left heart.

In the case I have given, the valve though thickened was not at all hardened.

The following exhibits congenital malformation of both right orifices:—

CASE II.

Tricuspid thickened and irregular—only two Pulmonary Valves.

A child, who from early infancy had exhibited palpitations and shortness of breath, died of bronchitis at the age of three years and two months. The heart was found much enlarged, weighing, with the aorta to its arch, and the pulm. artery to its bifurcation, 5¾ ounces. The right ventricle felt as hard as the left; right auricle very large; tricuspid valve was found with its edges covered with knobby cartilaginous thickenings, forming an irregular orifice. Walls of right ventricle nearly half an inch thick, and quite as thick as those of left ventricle—the pulmonary artery was dilated to ¾ of an inch in diameter, and was larger than aorta. Its semilunar valves were only TWO, but not at all diseased, and when closed, formed a perfect septum. The musculi pectinati of right auricle were largely developed. Foramen ovale closed;—left auricle and ventricle natural; mitral valve irregular in shape, (one side being very long, the other proportionally short), but not otherwise diseased.

The union of the pulmonary semilunar valves is an extremely rare occurrence. Bertin, in his 56th case, gives an example which he says is perhaps the only one of this kind known; the orifice of the pulmonary

* M. Philouze a presenté à la societé anatomique un cas de retrecissement de l'orifice de l'artere pulmonaire dans lequel les trois valvules sigmoides réunies étaient considérablement épaissies et osseuses. L'une de ces valvules presentait un prolongement osseux, etc. ——l'orifice auriculo-ventriculaire droit était ossifié et un peu retreci. (Cruveilhier, Anat. Pathol. liv. 28) He also refers to other cases

artery was closed by a septum pierced with a hole of two lines and a half in diameter, beyond which the vessel presented nothing unnatural. He considers it congenital malformation. Morgagni gives a case in which the sigmoid valves were cartilaginous, and so intricately connected at their free edges, that they scarcely left an aperture so large as a lentil. The foramen ovale was open. Carswell, (Path. Anat.) has figured a case of a similar kind to that of Bertin. The pulmonary artery was closed by the coalesced valves, whose free extremities were converted into a broad thickened ring, supported by three rays, (like spokes of a wheel,) connecting it with the base of the valve.

A case exhibiting a nearly similar appearance is figured by Cruveilhier (28th livr.), and he refers to others. Bouillaud, also, has collected some cases of this rare malformation.

An unique case of obstruction of the pulmonary artery is described and figured in Elliotson's Lumleian lectures, (plate 1, fig. 2.) In this instance, the obstruction arose not from any defect in the artery or its valves, but in consequence of the muscular substance "growing together around the mouth of the pulmonary artery, leaving a very small opening, beyond which was the real mouth of the artery of its natural size with its valves." The patient had always suffered from dyspnœa, and Dr. E. fancied it congenital.

But it is chiefly on the left side that we meet with degenerations of the valves, and narrowings of the orifices. I might quote from authors numerous examples of extreme arctation. Hope says, he has seen every degree up to the size of a smallish quill. Bertin (case 51) found the mitral orifice reduced to "a kind of ovular chink, the greatest diameter of which was not more than three lines." Rokitansky says "this contraction is frequently so considerable, that the diameter of the auriculo-ventricular opening, more especially on the left side, scarcely equals that of the little finger, or even of a goose quill, while the arterial openings would not admit of the passage of anything larger than a crow quill." Dr. Sieveking (Path. Anatomy,) delineates a case of extreme narrowing of the aortic orifice in an adult, in which the passage was contracted to the size of a pea,—p. 324. One of the most wonderful instances of this obstruction is narrated by Dr. Stokes in his late excellent work on diseases of the Heart and Aorta, p. 153. He says, "The left ventricle was distended to the last degree with fluid blood, and the aortic opening exhibited the most extreme amount of obstruction from ossific deposits that I have ever seen or read of. At first, indeed, it seemed as if there was no opening; but when examined on the ventricular side, a very small slit was discoverable of about four lines in length and one in breadth, through which it was just possible to pass a small probe."

My chief object in this paper, however, is to notice the existence of great heart disease, without prominent symptoms, or any feelings of distress.

Case III.

Narrowing of Aortic Orifice—Pulmonary Apoplexy.

Sept. 7, 1842.—Mrs. B— has been confined a month. A week ago rigor came on; now feels very weak; constant nausea and vomiting; had coughed severely before delivery, but cough now slight; pulse very weak and irregular; some oppression and slight pain about præcordia. 8th and 9th—much the same. 10th—much relieved, but has expectorated blood several times. Severe pain came on in the afternoon to right of umbilicus, with pain of acromion. 11th—Relieved. 12th—Suffered all night from colic; no cough or expectoration. 13th—6 a.m., suddenly seized with feeling of faintness; pulse became insensible, and she died at 8, with intellect unimpaired.

Autopsie.

Much fat below integuments; abdominal viscera healthy; mucous membrane of stomach injected in patches. Chest—Right pleura healthy; left adherent; left lung healthy, except in three or four spots, which were firm, dark red, and abruptly defined; on cutting into them, found filled with solid blood. In right lung, whole lower part of lower lobe filled with same firm coagulum. Pericardium contained seven oz. of yellowish transparent fluid; interior shining and no lymph. Heart rather larger than natural, but soft; right ventricle contained fibrinous concretions; its parietes were thin; right auricle rather dilated.

Left ventricle—cavity not at all enlarged; thickness of walls not at all increased; orifice of aorta very much contracted, forming an oblong narrow opening ¼ of an inch long, by ⅛ wide; valves thickened and rough; on their upper surface were three osseous tumors, about size of split peas. Aorta above valves dilated.

The subject of the above case I had known for some years, occasionally attending on the family. She was rather a large woman, rather stout, and apparently bustling about as most housewives. I should probably have been consulted had any difficulty of breathing or other distress occurred to her.

The following case I saw, both before and during his last illness, in consultation with Dr. Campbell, our Professor of surgery, who has kindly furnished me with his notes of the post mortem appearances:—

Case IV.

Hypertrophy—cutaneous growth on vulvæ.

Mr. M— first consulted Dr. C. in consequence of the recurrence of

a fainting fit, which he had had a considerable time after a former one, both which, especially the first one, having occurrred after powerful bodily and mental exertion. At that time, a blowing systolic murmur was heard over the whole cardiac region, having its maximum rather above the base of the heart, and prolonged upwards along the aorta to the carotid. Pulse moderate in strength and frequency and without irregularity." He continued for at least four years without any impairment of the general health, which was excellent, and without any uneasiness in the region of the heart. He was careful to observe the directions given him to avoid all violent exertion, and to attend to his diet and digestive system. He afterwards visited England twice, where he consulted Drs. Williams and Walshe. He was able to attend to his business, walked and rode without uneasiness, and in every respect seemed healthy and comfortable. In Dec. 1853, he unfortunately took cold, and was affected for several days with mild bronchitis during which, however, his feet began to swell. Extreme dyspnœa suddenly came on which was followed and accompanied by great nausea and hematemesis to a trifling extent. The cardiac signs remained unaltered; no tumultuous action ensued; and decubitus was possible till within an hour or two of death.

POST MORTEM.

A small quantity of fluid in the peritoneum, and a few ounces in each pleural sac; pericardium contained about two ounces of serum. Heart hypertrophied on both sides, ventricles dilated to about one third more than their normal capacity. Septum nearly an inch thick. All the valves except the aortic were healthy. In looking into the aorta, the situation of the valves seemed occupied by a cauliflower-looking calcareous excrescence, which upon examination was found to be composed of two of the valves expanded into this morbid structure, and occupying nearly the whole calibre of the orifices; these two valves did not adhere though in close contact; the third valve, situated upon the mitral side of the artery was so contracted as to form but a fine fringe along its aortic border. On looking into the aorta from above, no opening could be detected, but examined from below, a curved narrow passage between the projecting calcareous mass and the remains of the third valve was discovered, which admitted the point of the finger pushed into it. It must have allowed regurgitation to some extent as water poured into the aorta readily ran through it. Below the attachment of the aorta, the whole circumference of the ventricle to the depth of an inch superficially, was thickly studded with smooth calcareous nodules, resembling split peas in size and shape. The aorta above its valves was quite healthy; the lungs were engorged, and œdematous. Three or four of the bronchial glands were greatly enlarged and completely calcified.

This case shows strongly how, with a large amount of obstructive disease, life can not only be supported but enjoyed. Instances similar to this, even more striking, are brought forward in Dr. Stokes' volume, fraught with great practical value. They must tend very much to abate the alarm which the unlearned universally, and professional men very commonly, experience when the existence of some anormal heart sound is detected.* It is true, we must still adopt in regard to these cases the very appropriate motto which Corvisart affixed to his classical work, "hæret lateri lethalis arundo." Such cases are always insecure, yet they may often be placed in the category of those complaints which, though creating delicate health, and requiring care in avoiding exciting causes, may allow to the sufferers considerable prolongation of life.—

"Thus" (I quote from Corvisart p. 342.) "I have lately seen a man, aged about 76 years of age, sink under a disease in about 14 days, having all the signs and symptoms of an organic affection of the heart, who had never before had the slightest indication of such a complaint†."

Again, "I have seen a man about 55 years of age who had always enjoyed good health—suddenly attacked with an organic affection of the heart, under which he sank in about five months.

Andral speaks to the same purport: "Les orifices du cœur peuvent rester longtemps altérés, sans qu'il en résulte, habituellement, de trouble appréciable dans l'action du cœur. Seulement tout effort, tout exercise violent, tout travail intellectuel, tout excès, tout ce qui, en un mot, tend à excélérer la circulation, détermine en pareils cas des palpitations et de la dyspnée. C'est, surtout, chez les vieillards qu'on a fréquemment l'occasion d'observer diverses altérations des orifices du cœur, qui doivent gêner le passage du sang, et qui cependant ne sont accompagnées d'aucun autre trouble, que d'irregularité du pouls.—Anat. Path. t. 2, p. 293.

So also says Stokes, "The doctrine that disease of the valves, when

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* So general is the belief that sudden death is the inevitable termination of disease of the heart, that the very suspicion of the existence of such an affection leads to great and injurious mental depression on the part of the patient, and corresponding anxiety among his friends.—Stokes p. 133.

The following case affords corroborative proof of the amazing amount of disease under which the heart may continue its functions. "The patient, a male adult, brought in five days before death; there were dyspnœa, dropsy, and frequent syncope. Heart and pulse scarcely felt.

Post Mortem.—Tricuspid valve grown up so as to have only a small and nearly circular opening in its centre. Mitral valve still more grown up, leaving only a fissure. Semilunar valves of the aorta thickened and projecting, so as to leave only a small triangular opening. Pulmonary valves thickened, though opening of natural dimensions." Elliotson's Lumleian Lectures, plate 2.

Dr. E. observes, "Altogether it is the greatest instance of valvular disease that I am acquainted with.

† It is to be recollected that Corvisart wrote anterior to the discovery of auscultation and the invention of the stethoscope.

it is uncomplicated with organic lesion of the *muscles* of the heart, is often so latent, as to be undiscoverable without physical examination, is one of the great truths for which we are indebted to the genius of Laennec. And *it is not yet* sufficiently insisted on that valvular disease, even to an extreme degree, may affect the heart without there being any thing in the previous history or existing symptoms, which could lead us to suspect the existence of such a lesion. Years may pass by, the patient fulfilling without inconvenience all the duties of anxious, active and energetic life."

Dr. Stokes adds the very practical remark "that an error too generally made is to believe disease of the valves to be necessarily progressive," and adduces cases where individuals had for a series of years (in one case 12), presented the phenomenon of valvular murmur, without any obstacle to strong exertion.*

Notwithstanding, therefore, the undeniable fatality of heart-disease, facts such as have been adduced must tend to show that the same gradation that is so generally met with in most severe diseases, may be allowed in cases of cardiac constriction.† We may hope, even, when informed by physical signs that the heart is affected, that they do not sound the death-knell of the individual who presents them, but, though menacing and cautioning, that the case may allow of the expectation of a freedom from suffering and danger for a prolonged period.

If, then, we so frequently find cases of valvular diseases entailing upon those affected but very little if any inconvenience, it is a question of much importance to point out, if possible, why after a long time such cases often suddenly, as in case IV., or more slowly, as in case I., assume a formidable character, conducting the patient with much distress to certain dissolution. Difficulties, no doubt, involve the solution of this question, which it would not be easy always to clear up, but the following quotations will throw a great degree of light upon the subject, and have a practical bearing upon it of the highest importance.

"The study of cardiac pathology leads irresistibly to the conclusion, that in valvular disease the source of irregular and excited action is to be sought for less in the condition of the valves than in that of the heart itself," p. 161. "A slow organic change of one or more orifices of the heart may go on without exciting any symptom which leads to the suspicion of disease; and the heart by some power of adaptation seems to

* "I knew a gentleman who was advanced in life, and who had, to my knowledge, a loud and rough mitral murmur for four years, yet during each season he rarely missed a day's hunting, and was a bold and fearless rider."—Stokes.

† For instance, between distinct and confluent small pox; between scarlatina so mild as scarcely to be recognized, and scar. maligna; between common cholera morbus and the fell ravager which has lately carried off myriads, &c.

adjust its action, so as to carry on the function of circulation without manifest disturbance.* But on the occurrence of any general disturbance of the system, the signs and symptoms of a diseased heart are suddenly developed," Stokes, p. 153.

Walshe says, "Though these diseases be anatomically incurable, their worst functional effects may be long, in some cases indefinitely, averted by measures accordant with a common-sense view of their nature, and ratified by experience. Whatever be the valve implicated, the treatment is directed not towards its own disease, but towards the moderation or prevention of hypertrophy of the muscular substance of the heart, or dilatation of the cavities. Practically, the treatment of valvular diseases comes to be that of hypertrophy and dilatation."

In this disease, perhaps more than any other, the patient may be said to bear his life, or rather its prolongation in his own hands, provided necessity does not impose its iron shackles to prevent his using due precautions. Should he be reckless and improvident, vicious and debauched, stimulating the circulating system by physical and moral excitement, he will soon feel the effects of his own imprudence; while the contrary deportment; habits of temperance and sobriety, and a prudent recollection of the necessities of his case may extend his life for many years.

I add, by way of appendix, two cases of the "*cas rares*" description, which are interesting from their symptoms.

Case V.

Severe Ague?—Adherent Pericardium—Aneurism of Aorta—Floating Concretion within Aorta.

February 21, 1853.—Miss McG—, aged 18.—On 1st of October last was attacked with rheumatism (acute) which lasted six weeks; was attacked again about Christmas, and was said to have had considerable pain about the region of the heart, which was not attended to. When I saw her, she was hot, breathing very fast, with frequent full pulse, a very loud bellows murmur, especially at second right cartilage, where no second sound could be detected; at other points, it could.

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* Corvisart observes:—When we reflect how small the aperture frequently is in these contractions, we cannot but wonder how life can go on for many years with such an organic derangement. If such an obstacle to the circulation were to form suddenly in a healthy person, speedy death would probably be the consequence; but as these affections are of slow growth, nature seems capable of accommodating herself, to a certain degree, to such a powerful impediment gradually forming to oppose the free exercise of her laws.—Hebb's Trans. p. 193.

Ordered calomel, digitalis and large blister. Next day, 22nd, greatly relieved, which at first attributed to treatment, but on narrower enquiry into the history, I found she was laboring under severe intermittent, and I had seen her during or towards the close of the hot fit. Her apparent amendment to-day was therefore owing to her being in the intermission. I was, then, told that she had two paroxysms each day, the cold stage lasting nearly two hours. The fits had commenced 12 days before, and had continued single till within a couple of days. The right hypochondrium was tender, but liver not felt. Bowels loose and the stools occurred almost always during the cold stage, and two or three of them. At the same period, but not at other times, vomiting frequently came on. From this time, till March 5th, on which day she died unexpectedly, the paroxysms continued generally twice a day, though once or twice only one fit occurred in the day. They, however, lost the regular period of return, commencing at irregular hours—1, 2 or 5 in the morning—at 5 or 9 at night—sometimes at 9 a. m.—and once at noon—latterly, the shaking became less, and only cold was complained of at the beginning of the paroxysm. The strength gradually declined and she died quite conscious, having had three "turns" as if fainting, in the last of which she expired.

POST MORTEM, 43 HOURS AFTER DEATH.

Pericardium adhered universally to the heart by a false membrane which was easily lacerable, and had a remarkable appearance, being of a dark greenish color, exactly like gangrene. This color was only in the false membrane, not in the layers of the pericardium. Heart was flabby, not large, some blood in left ventricle. Blood in all parts very thin and watery. Large numbers of fat globules, were seen floating in the fluid that ran from the incisions. The lung of both sides adhered to the pericardium. In other respects, they were quite healthy, except an old adhesion on right side, to diaphragm. On cutting up the aorta, the valves were found hardened and thickened on edges like a cock's comb, but they retained fluid when poured into the vessel.

About an inch above the valves was a pouch having an orifice fully half an inch in diameter, and the pouch itself was about an inch across, (being an aneurism with rupture of internal coats.) But, what was very curious, at the distal side of this orifice was attached a concretion (apparently lymph, but very firm), about two inches long and of irregular thickness, and free within the aortic cavity Mitral valve healthy; pulmonary artery somewhat dilated at orifice; a polypus of some size in the ventricle, extending into auricle. Liver large, uniform in color, but not engorged. Spleen very large, weighing one pound, and pretty

firm: kidneys large, softish; capsules peeled off as if quite unattached; other organs healthy.

Query, what was the nature of the paroxysms? They might, from the period of the complaint at which they commenced, have been regarded as the results of internal suppuration; paroxysms from this cause sometimes simulating very exactly intermitting fever. It was said, however, that about 2½ years before, while in Upper Canada, she had had ague in a mild form, but it had no recurrence.

On the whole, I considered them as ague, and the diagnosis was borne out by the absence of any appearance of suppuration, and by the large size of the spleen.

The parts everywhere had an infiltrated appearance, though not positively containing fluid. Transudation had taken place, so as to color the organs, and, also, the fluids in the cavities. There was about half a pint of bloody fluid in each pleural sac, and some in the abdominal cavity.

It is not easy to see any connexion between the ague and the organic disease. Most of the latter was due evidently to the rheumatism; but each would aggravate the other, and conjointly more rapidly exhaust the patient. Dr. Elliotson relates a case—"a man admitted into St. Thomas's on account of ague, and made no complaint of any pectoral symptoms; he was seized suddenly with dyspnœa, and died before I saw him." The central aortic valve only diseased—covered by large excrescences easily detached,—plate 5.

A case bearing a marked resemblance to the one I have described is given by Dr. Hope, (Path. Anat. fig. 74.)

"A boy, æt. 10, had sawing murmur; pulse 120, very weak, small and unequal; respiration hurried; temporary pain and constriction in the præcordial region. Pulsation of heart over large extent, &c. &c. But his most remarkable symptom was an intermittent febrile paroxysm, coming on daily about noon with pain in the heart, and consisting of chilliness for an hour, heat for half an hour, and perspiration till evening. He was affected with pain and the intermittent paroxysms for ten weeks, when he died."

"Aortic valves were agglutinated together, forming a fibro-cartilaginous ring. Hydro-cardium two ounces, hydrothorax six ounces on each side. Both ventricles hypertrophied."

Case VI.

Hypertrophy, remarkable Ecchymosis.

December 31, 1846, Sillman, aged 18, had suffered for a number of months, from fits of difficult breathing—has been under treatment.

At present is anasarcous—much dyspnœa; cough; scanty deep colored urine, &c. but the singularity is that in many parts, the surface exhibits

patches of ecchymosis, especially about the fingers, but most of all on the right thigh, on which he lies exclusively—the whole side of the thigh from trochanter to knee, is ecchymosed as if from severe bruise. It was very tender when I first felt it, but two days after not at all so.

I ordered him inf. digit. ℥i. in die. Jan. 2—Urine largely increased; anasarca very much diminished; ecchymosis as before. Jan. 9—Died rather suddenly; ecchymoses had rather increased; the whole scrotum was like that of a negro.

He was seen on 8th, when the pulse was 108; full and jerking, and action of heart strong. Examination not obtained.

ART. XXXVI.—*Case of Phagadena Oris.* By THOS. P. S. BROWN, Physician and Surgeon, Stoney Creek, C. W.

S. J—, ætat 23, a young woman of good family and character, unmarried, considerably debilitated and anæmic from menorrhagia and leucorrhœa alternately, (if I may thus express it,) was attacked about 15th January last by cancrum oris.

I saw her about a week later than the above date. She had tried many local applications recommended by some work on domestic medicine, such as alum, creasote, borax, &c., &c., without the least benefit, before sending for me, being 7 miles distant.

Although it is very rare to see this disease at such an age, I arrived at my diagnosis as follows:—

1st, By the disease confining itself to the cheek and gums of one side.

2nd, By the absence of bluish or livid spots on trunk and extremities, found in purpura and scorbutus.

3rd, By the excessive acrimony of the salivary discharge, excoriating the chin and cheek in a short time when allowed to come in contact.

4th, By the presence of severe irritative fever, generally or always absent in scorbutus and purpura.

The gums and cheeks in spots were gangrenous—a constant and extremely fœtid ichorous discharge, with a little dark offensive blood occasionally, the latter followed by relief of pain. Several of the teeth loose, which had been remarkably firm and sound. Considering it a case of alteration of the constituents of the blood, affecting all the tissues, producing fearful debility, as well as irritability, (pulse ranging from 110 to 136,) and in view of the long continued functional uterine derangement

(which in my opinion was the principal cause of the disease in this instance), I at once adopted the following treatment:

℞ Fer. citras-ammon.
Fer. citras et quinine, aa. ℈i.
Aquæ distillat. ℥v.
Dose, a teaspoonful every four hours in water.

The stomach bore it well, the appetite improved, as did the general health. She continued to take this formula, and no other for three weeks, with castor oil and opiates as required, using at the same time the following locally, wherever any appearance of the disease existed,

℞ Acid muriat. ℈i.
Mel. dispumat. ℥i.

This gave but little pain at first, but after a few days required to be diluted. Its use was continued about a week every three or four hours, and at longer intervals during another week, when it was omitted, the teeth having become firm, and the soft parts quite healthy. I also used as a liniment, externally, equal parts of liq. am. fort.; spir. tereb. et ol. dulce. Her diet was as light and nutricious as possible.

I have this day seen her; she is quite well in every respect. She expresses herself better than she has been for several years.

Stoney Creek, March 1, 1855.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

XXXVII.—*The principles and practice of obstetric Medicine and Surgery, in reference to the process of parturition*, with 64 plates and numerous wood cuts. By FRANCIS H. RAMSBOTHAM, M.D.; F.R.C.P.L.; Obstetric Physician to the London Hospital and Lecturer on Obstetric and Forensic Medicine at the London Hospital Medical College, lately Physician to the Royal Maternity Charity of London, &c. A new American edition revised by the author with notes and additions by William V. Keating, M. D., A. M., Lecturer on Obstetrics and Diseases of Women in the Philadelphia Medical Association, &c. Philadelphia: Blanchard & Lea. Montreal: B. Dawson, 1855, pp 648.

It is scarcely 30 years since Mr. Mitchell, in an octavo of 128 pages gave expression to his enthusiasm concerning the virtues of Ergot in the opinion that as soon as the remedy was generally known in fe-

male practice, it would "supersede the necessity for male practitioners except in a very few instances where the disproportion of parts is very great or the presentation such that delivery cannot be effected without turning; in such cases the medical man will be still called in, but these will not occur in more than 1 out of 200." Had these vaticinations been fulfilled, the sole duty of the "man midwife" would have been taken up in operative interference with the course of nature during parturition and his presence in the lying-in room would only have been demanded when trials of manual dexterity or of instrumental strength were unavoidably necessary. His studies would have been curtailed down to the acquisition of the rules of force and of extraction; while he might justifiably have remained ignorant of every particular connected with the history of natural labor. But no such exemption of occupation or abbreviation of attainment has yet been observed. For as to be expected views so singular as those of this expectant writer were properly estimated to be the fanciful perceptions of a visionary, and probably never enlisted in their cause a single supporter. Conventional usage still requires that the man practising midwifery shall be a thorough master of its entire science and practice, and be as competent to aid the uterine efforts when matters are in the right train of accomplishment, as well as when any occurrence is unusual or perilous. How far custom is right in insisting upon these requirements is a question wearing an entirely different aspect, to the one concerning the real necessity for their possessions under present circumstances. It is, however, one which has not been reserved for the profession. The public have set themselves up as judges and decided it in accordance with their feelings and experience, women feel themselves safer under the care of a Doctor, and they have repeatedly found that in the event of danger supervening he is at hand and prepared to avert its threatenings. The considerations which their delicacy might naturally inspire against his assistance find no place in the selection, as they are outweighed by the paramount advantages which are known to follow from his superior knowledge and greater nerve. There, assuredly, are no circumstances that can arise which in comparison require so correct an acquaintance with the anatomical condition, both normal and pathological and of a more important organ than those under which the gravid uterus may be placed in the hour of sorrow. Nor can we imagine any cases which more require the exercise of skilful judgment, promptness of action, self-possession, firmness of purpose, and strength of execution as those that may be presented during the period of parturition. The proper management of hazardous cases calling out qualities like these have by unanimous consent been allotted to the medical man and as it is impossible to predicate when the peril may

happen, his services have come into general requirement, and are rendered alike in simple and complicated labours. These should form sufficiently cogent reasons for his fully perfecting himself in the theory and art of midwifery, or as it is pompously called, upon the continent in tokology.

In the work familiarly known as "Ramsbotham's Obstetrics," will be found a correct and minute account of the present state of the literation of this department of medicine, and we know of no safer guide than it for the practioner or better book of perusal for the student. It is not our intention to enter upon its praises, for that would be a work of supererogation. Since its appearance, 14 years ago, it has enjoyed an unsullied approbation, and is among the practitioners of Britain and this continent referred to as the standard work on the subject.

The present edition contains, like the first, a description of the different species of labours and their necessary accompaniments, the anatomy of the organs distinctive of the female economy, and a phytiological outline of generation, but besides these it also comprises an account of the diseases of the puerperal state and of pregnancy. Some matters discussed formerly, rather too laconically, have been entered into more fully, as examples we may mention the connection between the maternal and fœtal systems, and the establishment of respiration in newly born children. Another feature which has been super-added to the original work is a collection of tables drawn up from the practice of the Royal Maternity Charity in London. A great deal of value has been attached to numerical statements of this kind, and few works having any claim to profundity are issued without containing a fewer or greater number. We confess, however, not to be very ardent admirers of them for, generally speaking, the system is faulty from the looseness with which the facts are put together and the hastiness with which the generalizations are drawn. Very carefully recorded statistics, at most only serve to denote approximations to the actual prevalence or constancy of any particular phenomenon, and can never meet the purposes of precision under an application to similar instances or even afford more than a rough average under circumstances of a more general character.

This edition of Ramsbotham, it will be seen from the title, has been especially prepared for the American press by the author, and enlarged by his own additions and notes. We find that English writers are beginning to follow a similar practice with their productions, and endeavor to secure their publication on this Continent, after effecting an advantageous arrangement with some well-known firm, as the Messrs. Blanchard & Lea. This is what they should have done long ago; for, among other evident benefits to be derived, not the least are securing the appearance of the work in strict accordance with their own desires. The

opportunity of making such alterations, or other improvements in the text as they conceive will enhance its value, and the prevention of undue liberties being taken with the body of the work, of which some, and not without reason, have had to complain. We are glad too, to find that this edition has been dedicated to an American physician. This is just as it should have been. No excuse need be offered for the want of a deserving person for there are numbers in the new world who have proved themselves highly honorable members of their profession, and many who, in every department of it, have both by pen and by mouth obtained for themselves a very elevated reputation. On the present occasion our old friend Meigs has been selected, the renowned teacher of obstetrics in the Jefferson Medical College, and of whose writings our opinion has aforetime been chronicled.

The typographical part of the above work is beautifully executed, and reflects great credit upon its publishers. The text is interspersed with a large number of splendid plates which, in point of execution are not inferior to those that adorn the issue of the English metropolis.

XXXVIII.—*On Injection of the Bronchial Tubes and Tubercular Cavities of the Lungs.* By HORACE GREEN, M. D., L. L. D., President of the Faculty and Professor of the theory and practice of Medicine in the New York Medical College, Corresponding Fellow of the London Medical Society, Member of the American Medical Association, &c.

We are believers, not only in the practicability of introducing a sponge probang into the larynx, through the chordæ vocales and into the trachea, but also in the importance of the application of nitrate of silver to the diseased mucous membrane in certain cases, by such means. We recognize in Professor Green the originator and consistent advocate of the practice, and, all that has been said and written to the contrary notwithstanding, believe him to have been the first person to successfully carry into effect local medication, by direct applications, of laryngeal disease. In the pamphlet before us, however, the doctor rather startles us by his bold propositions, and we do not feel altogether inclined to follow him in his practice. To the cauterization of the larynx and trachea we offer no objections, as the procedure is not entirely unfamiliar to us, but to inject the bronchi and tubercular cavities with a solution of nitrate of silver, of the strength of 30 or 40 grains to the ounce

of water, seems to us a difficult and hazardous undertaking. We shall, nevertheless, allow our author to speak for himself:—

Of one interesting fact we are now fully assured, that whenever the remedy has been fully employed in the treatment of bronchial disease, the effects have been invariably salutary. Catheterism of the larynx and trachea has now been employed in my hands, in the treatment of more than twenty cases of chronic bronchitis—some of them of a very severe and protracted nature, in which from one to three drachms of a solution of nitrate of silver, of the strength of from thirty to forty grains to the ounce, have been injected every few days, in each case, through the trachea, into the bronchi; and in every instance, with not a single exception, improvement has followed the treatment. In those cases where tubercles exist, whether the exudation be in a crude state, or beginning to soften, the beneficial effects of the treatment have been, thus far, as uniform and certain, although the improvement has not been as rapid in these as in the former cases. Most of these cases of tubercular disease are still under treatment, and the final result cannot be foretold.

In the employment of catheterism of the bronchi, by means of the flexible tube and the syringe, repeated proofs have occurred of the presence of this tube in the trachea. The coughing of the patient before the injecting was completed, has often driven a portion of the solution, with force, through the tube, and to a distance of several feet from the patient. Several distinguished ascultators, who have been present when the operation was performed, have had the curiosity to examine the chest of the patients, both immediately before and after the operation, when they have detected readily, by ascultation, the presence of the fluid in the lungs, immediately after the injection was made.

Of more than fifty medical men, comprising many distinguished physicians of our country, who, from time to time, have been present at these operations, all, *with one or two exceptions*, have been fully satisfied that these injections were, in reality, made, not into the œsophageal tube, but into the tracheal and bronchial divisions.

XXXIX.—*What to observe at the Bedside and after Death in Medical Cases.* Published under the authority of the London Medical Society of Observation. Second American from the second and enlarged London edition. Pp. 228. Philadelphia; Blanchard & Lea. Montreal: B. Dawson.

When the first edition of this work appeared, we strongly recommended it to all who were desirous of acquiring correct habits of observation at the bedside. We are pleased to see a second edition so soon called for. To the student following medical cliniques, and attending hospital practice, it is invaluable.

"In preparing the second edition, the whole of the work has been

carefully revised by the Committee who drew it up, assisted by some other members of the Society. A section *on Treatment*, with some modifications in the arrangement, has been introduced, and greater precision of expression has been aimed at; but the original character of the work, and, as far as was consistent with the additions, the same numbering of the paragraphs have been preserved."

CLINICAL LECTURE.

Clinical Lecture on Deep-seated Whitlow. By John Hamilton, Surgeon to Richmond Hospital.—It is not often that we have an opportunity of ascertaining the pathology of deep-seated whitlow; I am therefore glad to be able to exhibit to you this finger, which I removed from the hand of John Phelan, No. 5 Ward.

Let me first read to you his case, as taken by Mr. Tyrrel.

John Phelan, æt. 40, a painter, was admitted into the Richmond Hospital, with mortification of the two last joints of the middle finger of the right hand, which were black, cold, and shrivelled, the consequence of deep seated whitlow. The first phalanx, the neighbouring portion of the palm of the hand, and the back of the hand, particularly round the knuckles, were swollen and red, and there were three discharging openings, one on the front of the first phalanx, the second in the palm, and the third on the back of the hand, which had been made to let out the matter.

Ten days before he had a scratch on the back of the middle finger, and while immersing his hand in some size felt uncommon smarting in it; the next morning at four o'clock he was seized with a severe shiver and intense pain in the finger, which became swollen, with red lines remaining on the back of the hand from it. On the third day the top of the finger was quite black, and on the next day the blackness had extended to the base of the second phalanx.

On the fifth day, Mr. Hamilton saw him in consultation with Dr. M'Sweeny, and it was thought best to make a deep incision in the front of the first phalanx, which was very painful, red, and swollen; a quantity of matter gushed out with great relief, and he slept that night. It was necessary two days after to make the incision in the palm, and again that in the dorsum of the hand. These gave effectual relief to the pain, and the local inflammation became so much diminished, that Mr. Hamilton thought it fit to remove the finger at the metacarpal articulation. Everything went on favourably, and he left the hospital 9th of December, the wound granulating and contracting rapidly, and his general health much improved.

The removed finger was carefully examined. The two last joints were black and shrivelled, and a faint line of separation was commenc-

ing between the dead and living parts. The first phalanx offered a good example of deep-seated paronychia in the advanced stage. The fibrous sheath of the tendon was very thick, the section white and firm, the lining membrane of a pink colour, and here and there bloodshot, with some deposits of flaky lymph. The flexor-profundus tendon was loose and soddened, and surrounded by pus. The periosteum separated from the bone by pus, and the bone dead. You will see here the contrast between this natural thin white sheath, with its smooth, pearly white lining membrane and glistening tendon, and the thick sheath of the whitlow finger with its rough, lymphy red inside, and its dull tendon smeared with pus.

Many of you will think this subject scarcely worth your attention; but you are wrong; for you will find deep-seated whitlow a very serious and painful disease, by which the use of the finger or hand may be destroyed, and which requires prompt treatment; and nothing but a thorough knowledge of its nature and progress will lead you to insist early on those measures, which, though apparently severe, will alone arrest its destructive progress. As you have just seen, deep-seated paronychia is an inflammation of the inside of the sheath of the flexor tendons of the fingers, rapidly running into suppuration. The symptoms are usually as follows: the affected finger becomes painful, the pain increasing to the greatest degree, so as to prevent sleep, and often to cause the patient to spend the night walking about his room in torture. This will be at first accompanied by little swelling and little redness, more especially in front, although the greatest suffering is complained of there. The finger will be kept bent, any attempt to straighten it increasing the pain, as does also pressure over the affected part. By keeping the finger flexed, the skin in front is relaxed, as well as the tendon, relieving the painful tension and the pressure of the tendon on the inside of the inflamed sheath. The back of the finger next becomes red, swollen, and shining, pitting on pressure. You might be misled by this, and think it was the place to make your incisions in search of matter, but it will be found that pressure on this part can be borne, whereas in front, where Boyer says this whitlow always occurs, it cannot; and when the finger is attempted to be straightened, the suffering is at once referred to the front. After the third or fourth day, this part will be found swollen and prominent, particularly on a side view, but no fluctuation is discernable. If no treatment is adopted, the disease will often proceed from the finger to the palm, which becomes red, swollen, and tender, the back of the hand particularly so, of a deep shining red, pitting on pressure, and fluctuation is soon apparent either over the knuckle of the affected finger, or in the web between the fingers. In the palm of the hand we often observe that the matter, after having made its way through a small opening in the skin, does not pierce through the cuticle, which in the laboring classes is excessively thick, but separates it extensively, and you have a considerable collection of pus, only covered by cuticle, before you come to the real abscess; as the palm becomes engaged other fingers get flexed, and cannot bear extension, and the pain shoots up the arm to the shoulder; in a woman, I knew it extend to the breast of the affected side. In most instances the inflammation with suppuration stops at the finger and palm, particularly when

treatment has been resorted to; but if not, it may go up the front of the wrist to the forearm, in which case the patient recovers after weeks of suffering, worn out by sleepless nights and profuse suppuration, with bent, emaciated fingers, and a stiff wrist, and nearly a useless hand. Should the disease not extend so high, or not be so violent, it may end with a stiff bent finger. I should say when there has been a suppuration the finger is invariably stiff, and usually bent, from adhesion of the integuments to the sheath of the tendons, and of the tendons to the inside of the sheath, while in the state of flexion. If the inflammation is very intense, the tendons die and protrude through the natural or artificial opening that has let out the matter, and throw off greyish white sloughs; where a portion of the flexor profundus is totally destroyed, the finger may be quite straight, being kept so by the extensor tendon. Such is the case in the man now in the house, who came to the hospital after having suffered from whitlow six weeks. I took away a dead portion of the flexor tendon, one and a-half inch long, from the sheath. I am going to remove his finger, as he presents a further step in the disease, viz., the periosteum is stripped from the bone of the first phalanx by effusion of pus, and the bone is killed.

The death of the bone is most common in the last phalanx, particularly of the thumb. In such a case you will find, though the matter has been let out by a free opening, the disease lingers, the part continues red and swollen, the opening discharges abundance of thin matter, and has large flabby granulations around it, and if you feel the end of the finger, there is a pseudo-fluctuating feel, as if it was extensively undermined; a probe passed in removes every doubt by grating against the rough bone. It is best not to wait till it separates of itself, but enlarge the opening, and seizing the dead bone with a forceps, divide any ligamentous connexions at the joint, while any are on the stretch. The parts soon heal, the finger shortened, bent forward, and clubbed at the end, the nail irregular, but still a useful finger. In one of the coachmen in Mr. Champion's establishment, in whom the disease had been very violent for three months before I saw him, I found through a long side incision, which had been made by a surgeon, the first and second phalanges dead and bare of periosteum, and the third projected through a sloughy opening at the end of the finger; though the bone was dead, the soft parts were alive. In other cases both mortify, and the whole or part of the finger becomes cold, black, and shrivelled, as in Phelan's case, and also in a woman in Mr. Adam's ward, now in the hospital. Last season I had to remove a finger, for this cause, from a woman in whom it had mortified a few days after the disease began. Indeed, I have had to perform the same operation frequently, the cases being those in which the inflammation had been most acute, and the early treatment neglected. The excessive and rapid effusion into the sheath, and the attendant sudden swelling before the parts can accommodate themselves to it, seems to produce a strangulation, the circulation is arrested in the vessels, and the parts die.

The fever, in deep-seated whitlow, often runs high, and I have known delirium at night, but I have never met with a fatal termination except in one case, a man who crushed his thumb while intoxicated; deep-

seated paronychia followed, inflammation of the veins up the arm, and death.

On looking over the notes of many cases, I find the most frequent seat of deep-seated whitlows to be the middle finger, next the ring, and then the index finger, all before the thumb. This agrees with Boyer's experience; it differs from what we perceive in the superficial paronychia, in which the index finger and the thumb are so much the oftenest affected, and at their extremities. The part of the finger in the deep-seated paronychia most commonly engaged is the sheath of the flexor tendon over the first phalanx; this sheath is not only the longest, but the strongest and most complete. Men are more frequently affected than women, and the disease is most prevalent in winter. A few cases, when suppuration was threatened, subside and terminate by resolution. The majority run rapidly into suppuration, which is more or less extensive, according to the intensity of the inflammation. Such is an outline of the symptoms and pathology of deep-seated whitlow. You see that it is an inflammation of the inside of the sheath of the tendons, that nature makes vain efforts to get out the matter confined in the strong fibrous envelope; you have witnessed the disastrous effects of the unrelieved diseased action, the periosteum, the tendon, the bone, all at last engaged, and the finger, or even the hand, permanently injured or even lost. You will at once naturally arrive at the conclusion, that a free incision into the sheath, early performed, is the only treatment. Yet how is it that so many cases come to the hospital, where this has never been done, and all the destructive consequences allowed without an incision ever having been made.

I believe it arises from timidity, a fear of wounding blood-vessels, particularly when the disease approaches the palm; there the palmar arch becomes a kind of bugbear. Some years ago, I made careful dissections of the hand, with a view of furnishing myself with precise rules for incisions in deep-seated whitlows. Permit me to call your attention to a few practical conclusions I arrived at:—

There are two principal wrinkles or lines running across the palm of the hand; one, nearly transverse, corresponds to the joints between the metacarpal bones and first phalanges, and is situated about an inch behind the first transverse lines on the fingers. The second begins from the first, at the articulation of the index phalanx with its corresponding metacarpal bone, and goes in an oblique direction across the palm towards the pisiform bone at the inside of the wrist; *it answers pretty nearly to the course of the ulnar or superficial palmar arch.* These two lines, which are very regular, will be found to serve as excellent guides in making our incisions in paronychia with confidence.

On the fingers there are three bundles of transverse lines; the two from the tip correspond to the articulations, that next the palm does not correspond to any joint, but is situated about the centre of the first phalanx and of the sheath of the flexor tendon.

The palmar fascia goes about as far as the transverse palmar line before it sends off its four processes which go between the fingers, and are attached to their sides along with the tendinous insertions of the extensor muscles and the lumbricales.

The web between the fingers contains the digital artery from the

palmar arch and its division, and is filled up with loose cellular tissue allowing matter easily to go from the palm to the back of the hand. As the superficial palmar arch, the only one likely to be wounded, corresponds to the oblique line which is behind the transverse line, the distance increasing as it approaches the inside of the wrist, you can, in all the fingers, *safely* make your incisions as far as the transverse line; nay, in all fingers but the middle, you can cut beyond this as far as the centre of the hand, and in the index finger even further. But it is worse than useless ever to carry your incision from the finger further than the transverse line, so as to endanger the arterial arch at all, as after going so far it is quite sufficient to pass a director under the palmar fascia, which alone confines the matter, if it has gone into the hand. On the director, you could, if desirable, cut out through the fascia and even the annular ligament. Whereas if you cut down without a director to the palm, through all the parts to the bone (which in the palm is unnecessary, as there is nothing below the palmar fascia or annular ligament to confine matter), you could scarcely avoid wounding the arteries or large nerves. In the same way in the fingers after the sheaths of the tendons are divided, nothing remains to confine matter. These sheaths extend from the tip of the fingers to the transverse palmar line or metacarpal phalangeal articulation; they are thick and strong between the joints, thin opposite to them; you should avoid over the joints, and confine your incisions to the strong part of the sheaths between them, cutting to the bone if you choose, or what is generally enough, down to the tendon, taking care to open the sheath well, and always keeping in the centre to avoid the digital arteries running along the sides of the fingers. In the thumb it is particularly necessary to observe this last rule, as, otherwise, after cutting beyond the first joints you would be very likely to wound the superficialis volæ.

Bearing these facts in mind, you will have no hesitation in making sufficiently free and deep incisions. I repeat, take care that your cut is long enough to open the sheath freely; a mere deep puncture though it may let out matter, and give ease for the time; but not allowing free vent, will cause the pus to seek another outlet, and much mischief ensue. Three weeks ago, the Rev. Mr. Crampton's coachman came to me, suffering dreadfully from deep-seated whitlow in the sheath of the tendon of the first phalanx of the middle finger of the left hand. I plunged in a sharp, straight bistoury, and laid open, by continuing the incision, at least one-half of the sheath; a quantity of thick matter gushed out, and he never had any more trouble from the finger. You are not always so successful; in spite of free incisions the diseased action is not stopped. In such cases, though there is at first much relief, the unpleasant sensations return, the next night the patient will be kept awake by deep-seated throbbing pain, and you may be sure that the matter is working its way out in some other direction, and is not getting free exit, and you will probably discover some swollen, tender spot, to repeat your incision. If the disease presents itself in a more advanced and aggravated form, not only engaging the finger, but extending to the palm, back of the hand, or even the wrist, which last is very rare, you will have to follow the matter, regulating your incisions by the rules I have mentioned to you. Some authors have made a separate division of paronychia, which they

name paronychia periostei, from supposing the disease in this form to commence in the periosteum covering part of the phalanges, with suppuration between the periosteum and bone, death of the bone, &c. I regard the affection of the periosteum rather as a secondary effect of the deep-seated paronychia, whose seat we have seen to be the sheaths of the tendons, but when neglected, to engage finally, all the tissues, the periosteum among the rest, and the bone. When the first or second phalanges are stripped of periosteum, and dead, it is best to remove the whole finger at the metacarpal articulation, as I am going to do with the man in the house, who has only the first phalanx bare and dead. If it is the last phalanx, it cannot be removed alone, and as I have already said, a useful finger will remain after the opening is healed.—*Dublin Hospital Gazette.*

THERAPEUTICAL RECORD.

(From Virginia Med. and Surg. Jour.)

Cancer.—Dr. Gillespie, before the Medico-Chirurgical Society of Edinburgh, recommends in the highest terms the employment of chloride of zinc as a caustic, and reports a case of cancroid ulcer of the calcaneum treated with success by its use. The chloride of zinc is becoming a favorite with the American profession. It is always thorough, and easily kept under command.

Cholera—New Remedy!—Dr. Ottingen of Munich, who has been lately elected "Councillor Royal" on account of the services rendered by him during the late epidemic in Bavaria, considers that cholera is "a morbid affection of the sympathetic nerve," which terminates in paresis or paralysis of the vaso-motor nerves. In consequence of a morbidly increased exosmotic process, the serum of the blood exudes into the intestinal canal, occasioning desquamation of the intestinal epithelium. The following remedy he proposes as a stimulant to the vaso motor nervous system. ℞. *Valerianate ammonia* ℈*j aq. dist.* ʒ*ij ; syr. simpl.* ʒ*ss.* A table spoonful to be administered every quarter or half hour. He uses frictions with *ice* or Burgundy vinegar, followed by constant rubbing with hot flannels, drinks of ice water or claret, and ice pills.

Cholera—The Piratical Specific!—"A new and infallible mode of treatment for the Asiatic Cholera" is published in London by Dr. F. Wilson of Mauritius, (which agrees very well with the fact that one tenth of the population of that island died with the late epidemic.)

The Piratical specific is cajeput oil. Dr. Wilson was captured by some Malay pirates in the Moluccas, who communicated to him this wondrous remedy. In addition to the cajeput oil energetically administered, he uses frictions to the body and limbs.

Epilepsy.—In a communication to the Medical Times and Gazette,

Dr. Sieveking details seven cases of epilepsy treated with the cotyledon umbilicus, and concludes that this medicine seems to possess the power of mitigating this dreadful disease if it is not able to produce a perfect cure. He uses the liq. cotyl. umbil. in drachm doses three times a day, but contends that it is impossible to account for the modus operandi, as its effects on the system are hardly recognizable, though he classes it with digitalis, producing a slighty diuretic and sedative effect.

Gangrene of the Lung.—Dr. Bowditch of the Massachusetts General Hospital reports a case of gangrene of the lung cured under his treatment. The patient came in on November 22d and was discharged December 29th. She had all the symptoms of this usually fatal disease, and was treated with the *liquor soda chlorin.*, in ten drop doses, repeated frequently, and anodyne inhalations; a generous diet being superadded.

Hemorrhoidal Hemorrhage.—M. Trousseau reports in the Gazette des Hôpitaux the favorable results derived from the use of injections of the sulphate of copper in hemorrhages from the rectum, the consequence of piles. After using injections of nitrate of silver without avail, and the vegetable astringents having been unsuccessful, M. Trousseau recommended an injection of the Sulph. Cupri to be used daily.—The hemorrhage was relieved in eight days.

Hooping Cough.—Thirty-three cases of hooping cough, treated by the application of the nitrate of silver to the larynx and pharynx, are recorded by Dr. Eben Watson of Glasgow. Dr. Watson obtained the following results—cured in a fortnight, 10; three weeks, 16; in four weeks, 5; resisted the treatment, 1; died, 1.

Irritable Stomach in Phthisis.—Dr. Peacock's remedy for this complication which prevents the administration of cod liver oil, is a mixture of hydrocyanic acid 3 minims, and 10 grains of the tris nitrate of bismuth in a draught with mint water, to be taken thrice daily. The prescription has often been found efficacious.

Neuralgia.—An ointment of two grains of aconitine to the ounce of lard, has been employed by Mr. Hilton of Guy's Hospital, to alleviate the pain of this affection. One of those distressing cases of neuralgia following after amputation, was much benefitted by this ointment. Its great power should always be remembered in advising its use, and the patient cautioned as to the danger of venturing beyond his directions.

Podagra.—This disease, though not so frequent amongst us as with our porter drinking brothers of old England, is still not so rare as to be passed by unnoticed. Dr. Pritchard of the Royal Navy, has used the Piper Methysticum in obstinate cases of podagra with marked success. The remedy has been but lately introduced to the profession and deserves some attention.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUERI.

HOSPITALS FOR THE INSANE.

For many years the idea has prevailed that insanity is essentially a disease of the mind—the *anima*—that spiritual essence which is so mysteriously united with the material organization of man. In former ages, and, indeed, in later times, it has been looked upon as a manifestation of Divine vengeance, or the result of satanic machinations. The bearing which these erroneous views have had on the treatment of the lunatic, has been of the most unfortunate and mischievous character. To one holding the opinion of a diseased immaterial principle, all medication with the view of restoring the unfortunate subject of insanity to a sound and healthful mental condition, is preposterous in the extreme. "Who can minister to a mind diseased?" What article or articles in the whole range of the materia medica can restore the balance of an aberrant intellect? are questions which immediately rise to the lips of those who take, what has been termed, the metaphysical view of insanity. To the prevalence of such views are to be attributed, in a great measure, the harsh treatment to which these unfortunate beings were subjected, and their incarceration in dismal, prison-like buildings, from which they never emerged until life became extinct. Now, however, eminent physicians and psychologists look upon insanity as a curable disease; one, moreover, depending upon some change which has taken place in the structure of the organ through which the mind manifests itself. These structural lesions in the brain are not always, or frequently discoverable. The scalpel and the microscope may fail to detect them; but the enlightened physiologist and anatomist will redily admit, that alterations might exist in the minute structure of the encephalon, sufficient to produce disordered mental phenomena, which would be inappreciable to our senses, even with the aid of such artificial means as are, at present, at our command. "An error of some magnitude," says Dr. Forbes Winslow, one of the greatest living authorities on insanity, "has been committed by those who consider insanity to be a special, uniform, specific, and peculiar malady, justifying us in placing those so afflicted out of the ordinary nosological scale and sphere of medical practice. Again, it is necessary that we should, before being able to appreciate the effect of medical treatment, entertain just and enlightened views as to the *curability of insanity*. I now speak from a somewhat enlarged experience, from much anxious consideration of the

matter, and I have no hesitation in affirming that, if brought within the sphere of medical treatment in the earlier stages, unless the result of severe physical injury to the head, or connected with a peculiar conformation of the chest and cranium, and an hereditary diathesis, *is as easily curable* as any other form of bodily disease for the treatment of which we apply the resources of our art. . . . . The existence of so vast an amount of incurable insanity within the wards of our national and private asylums, is a fact pregnant with important truths. In the history of these unhappy persons—these lost and ruined minds, we read, in many cases, recorded the sad, melancholy, and often lamentable results of either a total neglect of all efficient curative treatment at a period when it might have arrested the onward advance of the cerebral mischief and maintained reason upon her seat; or of the use of injudicious and unjustifiable measures of treatment under mistaken notions of the nature and pathology of the disease." We see it, he further observes, "influencing the conduct of County Magistrates in the architectural proportions, medical organization, and general arrangements of our great national asylums. We also perceive the consequence of the error operating in many of the private institutions for the treatment of the insane, thereby degrading them into places of detention, instead of conferring upon them the character of hospitals for the cure of the insane."

We have been led to pen these remarks from having read that portion of the Mayor's inaugural address, in which he adverts to the urgent necessity which exists for providing additional accommodation for the insane of the Province. This is a subject which we have repeatedly brought before our readers and the public, during the last two years; and to the Chronicle is undoubtly due the credit of having aroused the attention of authorities, even higher than our worthy Mayor, to the utterly inadequate provision which has hitherto been made for our lunatic population. "An Asylum for the Insane," says Dr. Nelson, "cannot any longer be dispensed with, as there are scores of lunatics confined in our already thronged jail, besides numbers in the Grey Nunnery, and at *La Providence*, and there are still many in private houses, who cannot be transferred to the Beauport Asylum, the accommodation in that establishment being insufficient even for the number of its present occupants. In connection with this matter I am happy to say, that a building in excellent order and every way suited for that purpose can be readily obtained from the military authorities, at little cost, and that is the Military Prison now vacated at Hochelaga." Sorry are we to differ from his Worship, but differ we must *in toto*. The Hochelaga prison, or any other building erected for the purposes of a prison, *is in no way suited for*

an Asylum for the insane; and a moderate cost ought not for a moment to be taken into consideration where such important issues as confirmed insanity or restored reason depend so much upon the architectural arrangements of the establishments in which we place our lunatics. What! shall Canada revert back to dismal buildings, iron-barred windows, solitary confinement, strait-jacket and chairs of restraint, when philanthropists of other countries, in and out of the medical profession, are earnestly endeavouring to improve the construction and arrangement of Asylums, with a view to the more proper and successful treatment of the insane? Perish the thought! Let us have, if we have them at all, institutions of which the country may be proud, institutions containing all the most recent and desirable improvements introduced into the modern asylums of Europe and the United States. Insanity is a disease, and one amenable to treatment. It is neither an incurable malady, a visitation of divine wrath, nor an evidence of demoniacal possession; therefore, WE WANT HOSPITALS FOR THE CURE—NOT PRISONS FOR THE DETENTION OF THE INSANE.

Necroscopic examination of Poole.—The following post-mortem, which we copy from the New York *Tribune*, of March 10th, will be found to be deeply interesting pathologically and in a medico-legal point of view. The examination was held on the body of Poole the prize-fighter, who was recently murdered in New York, by Morrisey, another prize-fighter, and his faction:—

A post-mortem examination was made on Wednesday by Dr. Finnell, in connection with Dr. Carnochan, Putman, Cheeseman, Hart, Wood, and others. They found two wounds on the surface of the body—one in the lower and outer portion of the thigh, the other in the chest. The one in the thigh had two openings about an inch apart, and measuring a quarter of an inch in diameter. It passed through just beneath the skin without touching the muscle of the leg. The ball in the chest entered the sternum just at its junction with the cartilage of the fifth rib, passing through the bone and pericardium into the substance of the heart, where it was found. On raising the breast-bone and exposing the pericardium, it was found very much distended, measuring five inches in its transverse diameter, and six in its vertical. It contained about thirty ounces of a sero-sanguineous fluid. The external surface of the heart was covered with fibrinous exudation, the recent product of inflammation. The heart was washed and laid aside with no suspicion that the ball was lodged in it until after nearly two hours search in the cavity of the chest, and especially along the side of the spine. At last the heart was very carefully felt over, and the bullet was found imbedded in the muscular texture. On making an incision it was exposed. Its lodgement was in the septum, between the ventricles, about an inch and a

half from the apex of the heart, and a quarter of an inch from its surface. The muscular substance had united over the ball and healed so far that the point of entrance was obliterated. He lived for twelve days without any palpitation, or any fainting or syncope such as is usually experienced in a morbid condition of the heart. Its action was perfectly regular. There is no question but that, under favorable circumstances, he might have recovered, and experienced little, if any, inconvenience from the ball. For four or five days after he was shot, he was quite strong. A story goes that a man came to see him with whom he had had some difficulty, and asked him how he was getting along, whereupon he jumped out of bed and said: "I a'n't dead yet; I am well enough to flog you yet." He died from effusion in the pericardium, stopping the action of the heart. It is probable that, on Wednesday night, the effusion began to come on, and it rapidly increased. At 9 o'clock on Thursday morning it suddenly increased, and he sunk immediately. The lungs were pale and œdematous. The liver, kidneys, stomach, and other organs presented an unusually fine view of organs in a sound condition. The whole body was a most perfect specimen of fine muscular development; even to the ends of his toes the muscles were remarkably developed.

Reports of Hospitals for the Insane.—We have received the annual report for the year 1854, of two excellent American Hospitals for the Insane—that of the Pennsylvania Hospital, which is under the medical supervision of Dr. Kirkbride, and that of the Butler Hospital, of which Dr. Ray is superintendent. The total number of patients in the former during the year, was 413. The highest number at any one time was 239; the lowest was 220; and the average number under treatment during the whole period was 229. Of the patients discharged during the year there were cured 98; much improved 32; improved 19; stationary 15, died 26. There were admitted into the latter institution, during the year ending 31st of December, eighty—thirty-one males and forty-nine females—making two hundred and sixteen under care in the course of the year. There were discharged eighty-five—forty males and forty-five females, leaving one hundred and thirty-one—fifty-four males and seventy-seven females. Of those discharged, forty had recovered; twenty were improved; six were unimproved; and nineteen died.

Honorary Degree.—We copy the following from the Philadelphia Enquirer. Kindly and honorable feelings towards each other, ought to subsist among members of a liberal profession. This, unfortunately, is not the rule:—"At the Commencement of the Jefferson Medical Col-

lege, held on the 10th inst., the Honorary Degree of LL.D. was conferred upon the Hon. Chief Justice Lewis. From the fact that Judge Lewis is President of the Faculty and Board of Corporators of the Philadelphia College of Medicine, it may be regarded as significant of the appreciation entertained by the former of its young and vigorous competitor. It also presents a cheering assurance of the kindly and cordial feelings subsisting between the members of the medical institutions of our city.

Transactions of the New Hampshire Medical Society.—The bulk of the pamphlet containing the Transactions of the Society consists of the Annual Address, "Conservatism in Medicine," delivered by the President, Dr. Albert Smith; "The Poetry of the Medical Profession," an oration pronounced by Dr. MacFarland; and "A Dissertation," read by Dr. William H. Mason. Three very excellent and creditable productions.

THE PATHOLOGY OF PERTUSSIS.

(*To the Editors of the Medical Chronicle*)

GENTLEMEN,—In the review of hooping-cough, in your December No., you appear to be in error in regard to the views which I entertain of the pathology of the disease, a matter which has occupied my most careful attention and study for very many years, and which I am anxious to set aright before your readers. You say, "that although we cannot altogether agree with the doctor, or with his quoted authority Dr. Alderson, in considering the disease to consist *of dilatation of the tubes and air cells of the bronchi*, &c." Now this is far, very far indeed, from the true pathology of the disease; this condition is a pathological manifestation, found as a consequence of an accompanying bronchitis or pneumonia, and is not given by Dr. Alderson or myself as the pathology of pertussis at all; such condition has been denied existence altogether as a result of either pertussis or its complications, and meets with consideration in its proper place.

My own views of the pathology, which, so far, have been well received by the profession in this country, and which are founded upon truly rational grounds, are given at pages 210 and 211 of my book, and are comprised in eight declarations, which perhaps would be too long for your columns; but to sum them up in a few words:—the disease

consists of toxication of the blood, producing irritation of the nerves supplying the bronchial mucous membrane, with vascularity and secretion of mucus; this is followed by reflex action of the pneumogastric and respiratory nerves, and congestion of the vessels of the medulla oblongata, and pia mater surrounding it, and also at the origins of its nerves. These produce spasmodic contraction of the circular and longitudinal muscular fibres of the bronchi, as shown by the paroxysms and hoop the result of which, is frequent and rapid respiration to account for its temporary absence, thus producing a highly oxygenated or super-oxidized state of the blood, with a tendency to the formation of fibrinous concretions in the heart during the spasms. As a secondary result of the spasmodic muscular contraction of the bronchi, we have a temporary hypertrophy of the muscular fibres thus acted upon, which disappears again after the cure is established.

These conditions are strictly in accordance with what are found after death in the simple and uncomplicated form of the disease, a condition to be met with only when the child is suffocated from the excessive paroxysms.

Of all the diseases which have ever been written upon, Hooping-Cough is one which cannot be considered without a reference to many authorities, in proof of which I need only refer to the German, and our very few English writers, as examples. My own book contains some few chapters specially devoted to the views of others, but to say the whole work is a series of quotations is utterly untrue, and can be disproved by any body who will take the trouble to carefully go over it.

Trusting to your impartiality for an insertion of this letter, I am, gentlemen,

Your obedient servant,

GEORGE D. GIBB, M.D.

59, Guildford Street, London, 2nd Feb., 1855.

BOOKS RECEIVED FOR REVIEW.

Green on Injection of the Bronchial Tubes and Tubercular cavities of the Lungs.

Report of the Pennsylvanian Hospital for the Insane.

Nineteenth Annual Report of the Managers of the New York Hospital for the Blind.

Dr. John H. Griscom's Anniversary Discourse delivered before the New York Academy of Medicine.

Hon. Dr. Rolph's Address to the Students of Victoria College.

Error of Position, by Professor Milo.

Letters and Reviews of Professor Eve, by Dr. R. W. Jamary.

Catalogue of the Faculty and Students of the Medical College of the State of S. C.

Annual Report of the Post-Master General, for the year ending 31st March, 1851.

Parliamentary Papers from the Office of Routine and Records.

CORRESPONDENCE.

LONDON CORRESPONDENCE NO. 5.

London, 9th February, 1855.

Excessive professional occupation, both public and private, together with engagements of a literary and scientific nature, have prevented my writing sooner as intended, but I will make up for this by sending my sixth letter the beginning of next month for your April number.

So exciting is the, at present, all absorbing subject of the war, that almost everything else merges some way or other towards this all-engrossing one. There has been a great demand for assistant surgeons in the army, for service in the East, which, so far, has been fully met without much trouble, and never, perhaps, were their services more required than at the present moment, not so much for operations in the field as for the diseases incident to the nature of the climate, horrible exposure, nakedness, and short allowances of food; mostly all brought on from the want of some great head to direct and govern the intricate and various machinery indispensibly connected with our army as a whole. The most horrible and heart-rending accounts constantly appear of the sufferings of the soldiers in the Crimea, and when medical aid might be judiciously given, the unfortunate medical officers are without drugs to arrest a diarrhœa or to sooth a pain, all being at the bottom of some ship at Balaklava, beneath shot and shell. More men have, therefore, been lost from disease, than all our killed and wounded put together. It appears to be the general opinion that unless something is done very soon, there will be no British army existing; the contrast is a most painful one with our gallant neighbors, the French, who, although they have their casualities by death and disease, are well clad, and, to some extent, well housed, and they regret most deeply the sad condition of their brave allies, who they confess are all being sacrificed to routine. The consequence of this state of things has been the downfall of the present

ministry, and let us hope that some change for the better will shortly take place. On no occasion has medical aid been so much required and, perhaps, valued as during the present war, and no doubt, hereafter, the military surgeon will be thought more of, and placed in a better position than has been his customary lot. Within the last few days, news, a little more satisfactory, have been received of the condition of the troops, more especially in regard to the long-expected winter clothing, the sickness is a little on the decrease also, but the number already ill is positively frightful, and without the means of relief being at hand large numbers are necessarily sacrificed. I hope most fervently to be enabled to communicate tidings less gloomy in my next letter, but the feeling prevalent throughout the British Empire for the fate of its army has been one of universal despondency, which will require almost superhuman efforts to dispel, and which, perhaps, the fall of Sebastopol alone, at whatever sacrifice, may be the holocaust to assuage wounded feelings.

Triangular Calculi.—In my last letter I brought under the notice of your readers the particulars of an operation of Lithotomy, where a *flat* calculus was removed. As a contrast, I subjoin the following case from the *Bulletin Academic Imperiale*, of 15th July, in which a very unusual form was assumed, as well as an unusual number of calculi were present, thus deserving special attention. The case was reported to the Academy of Medicine, and was that of a man who had suffered from an acute articular Rheumatism, which was followed by inflammation of both the endocardium and pericardium, terminating ultimately in death. Besides the results of the inflammation of these membranes, the bladder was found to be thickened and contracted, and a secondary pouch at the base of its fundus contained five calculi, triangular in form, of equal dimensions, weight, colour, and composition, and disposed *en rosace*. The nucleus in all was uric acid, with layers of urate of lime, phosphate of lime with ammoniaco magnesian phosphate, and carbonate of lime.

Since my last I have witnessed a great many operations, but I can only describe two or three, reserving a future occasion for a useful summary of some of the more interesting.

Malignant Tumour of the Face.—A man, aged 67, who had a tumour twice removed before from the right side of the face, was admitted into University College Hospital, under Mr. Erichsen's care, with a third tumour the size of an orange, situated over the right cheek, and involving portions of the upper and lower lips, its angle being implicated. The tumour was decidedly of a malignant character, and its removal was consented to, to permit of the poor man having a little comfort of his existence for some time longer, but its recurrence was to be expected. The patient was brought into the operating theatre on the 1st Novem-

ber, and was given chloroform to inhale upon a handkerchief, but he was not completely put under its influence, and the operation for removal was commenced. An incision was made so as completely to circumscribe the diseased mass, including fully the right half of the upper lip and three quarters of the lower, with the whole of the cheek properly so called; this isolated the tumor, which was detached very easily with the diseased integuments. The wound left was a most frightful one to behold, the large hollow of the exposed mouth being filled rapidly and constantly for some time from severe hemorrhage, which several times nearly choked the unfortunate man. Several vessels required tying, and took a very long time indeed to perform. The upper and lower portions of the cheek were brought together by means of needles and twisted sutures, followed by attaching the cut surface of the lower lip to the termination of the two former and chin together, and lastly the upper lip and upper margin of the cut cheek were brought together in the same manner and retained by similar sutures. This manipulation occupied a long time, and if the structures had not yielded in bringing the cut edges together, so as to avoid much deformity, Mr. E. was prepared to detach the skin from the chin and neck, and to have covered the frightful wound by a rhinoplastic operation. On removing the man, the deformity, after the operation, appeared not so bad as might at first have been expected.

A section of the tumour was made, and pronounced to be scirrhus, which a microscopic examination subsequently confirmed; there had been no doubt, however, as to its malignancy. The healing of the structures thus brought together went on most rapidly and satisfactorily, and in a very few weeks after were perfectly healed, the deformity being comparatively trifling, very much less so than could have been anticipated, thus permitting of his discharge quite well. Now, the question here arises whether in recurring malignant disease, which of itself will wear the patient out and kill him, the surgeon is not justified in removing it with the knife, and thus prolong life? The answer will most surely be in the affirmative. This poor man has been a dreadful sufferer each time from the disease, but gets comparative comfort of his life, most certainly for a period longer by the operation; and the only difficulty presented by each later operation is to find material to supply the waste of the disease.

Strangulated direct Inguinal Hernia.—An old man, upwards of 73 years of age, was brought into University College Hospital on the 10th January, from the Islington Workhouse, with a strangulated inguinal hernia of the left side. The taxis had been tried previous to his admission by the surgeon of the workhouse, but without effect. The patient

was much prostrated and very weak, the circulation, as shown by the pulse at the wrist, was very feeble, he was, moreover, incoherent in his manner and speech; under these circumstances, when brought into the theatre for operation, chloroform could not be administered. Mr. Erichsen had previously tried the taxis when the patient was in the ward, but ineffectually, and from the low state of the patient, he could not employ any of the ordinary means, such as tartar emetic, the warm bath, &c., to assist in the reduction. From the nature of the tumour also, in its feeling very soft, without much pain, the presence of hiccup and stercoraceous vomiting, he did not augur very favorably as to the result of the operation, as he suspected the bowel might be in a gangrenous condition. The operation was performed in the usual manner, and the sac was opened, from which protruded a dark claret portion of small intestine, together with omentum to the size of the fist; the stricture was divided, and as the bowel appeared to be otherwise intact, it was carefully returned, the omentum, however, was only partially replaced, as a portion of it was adherent to the cord, the testicle and the tunica vaginalis, it was, however, quite healthy; a few stitches were put into the lips of the wound, and a figure of eight bandage applied. In his remarks upon the case, Mr. Erichsen mentioned that the portion of omentum which remained in the inguinal canal would act the part of a plug, and thus, in the event of recovery, permanently cure the hernia; he, however, thought the prognosis serious, from the age of the man, together with the amount of prostration present. The hernia, he observed, was neither at the internal nor external ring, but had been protruded between the two, through the conjoined tendon, thus forming a direct inguinal hernia; the structures divided were exceedingly thin, and in dividing them in succession he very speedily came to the sac, this might be owing in some measure to his having long worn a truss. As expected, death occurred on 12th, when at the autopsy, a large portion of small intestine was found in the left iliac fossa, of a dark slate color, in a gangrenous condition and agglutinated together from inflammation.

G.

Pil. Ferri Comp. P.L.—This preparation, consisting of pulv. myrrhæ, sulph ferri, carb. soda and syrup, is often prescribed by itself, and in combination with other pill mass. Owing to the decomposition which takes place between the salts of which it is composed; it is one of the most intractable and inconvenient preparations of the pharmacopœia. If prepared for the occasion, as it ought always to be, a perfect decomposition of the salts often does not take place till after the pills are formed either increasing them to a large size or reducing them to powder. If the mass is kept by the apothecary for any length of time, it becomes hard and changed in character, possessing no advantage over the common carb. ferri. The following will be found a good substitute without any of the objections which apply to pil ferri co.,—℞ Gum myrrh pulv. ʒi.; Sacc. carb. ferri, ʒij.; confect. rosar. ʒi.; ol caryoph. gtt. ii., *m* ft. massam. In pillulæ dividenda, No. xlviii.—S. J. L.

EXAMINATION FOR M.D. McGILL COLLEGE, Session 1853-54.

Materia Medica—Examiner, Dr. Hall.

1. What are the different varieties of camphor?
2. Where is it obtained?
3. From what is it obtained?
4. In what condition does it exist in the tree?
5. How is it separated?
6. In which of the varieties does it exist in solid masses?
7. How are these sought for, and separated?
8. What is camphor?
9. What is its action on the system?
10. What is its dose?
11. In what proportion is it soluble in water?
12. What is it aqueous solution called?
13. Is it soluble in alcohol?
14. What is this solution called?
15. What is the strength of camphorated spirit?
16. How may artificial camphor be made?
17. What volatile oils are used in medicine?
18. For what purposes are they generally used?
19. What are the characters of volatile oils?
20. Are fixed oils soluble in alcohol?
21. What are the exceptions to this rule?
22. What natural family of plants is remarkable for containing a large quantity of volatile oil?
23. Mention some of the plants belonging to the family Labiatæ?
24. Are cloves derived from this family?
25. From what are they obtained?
26. From what part of the world are they brought?
27. What part of the plant is the clove?
28. How can good cloves be distinguished?
29. What effects would be produced by swallowing two ounces of oil of cloves?
30. What treatment would be required in such a case?
31. Would you think purgatives beneficial?
32. Why not?
33. Of what officinal preparation does oil of cloves form an essential ingredient?
34. What is its use in that preparation?
35. What are the other ingredients of the compound colocynth pill?
36. What is colocynth?
37. To what natural family does the plant belong?
38. What is the action of colocynth on the system?
39. To what class of cathartics does it belong?
40. What is its dose?
41. What is its active principle?
42. On which of the coats of the intestine does it act?
43. What are the preparations of colocynth?
44. What is scammony?
45. Is it a gum, a resin, or a gum resin?
46. How may good scammony be known?
47. What is its dose?
48. How many kinds of aloes are there?
49. Which of these is the best?
50. Whence is socotrine aloes obtained?
51. How can it be distinguished from the other varieties?
52. What is the colour of its powder?
53. What are the preparations of aloes?
54. On what part of the alimentary canal does aloes act?

55 On what does this peculiarity depend?
56 By what means can aloes by rendered more soluble?
57 Would you give aloes in a case of hæmorrhoids?
58 Why not?
59 What are hæmorrhoids?
60 What would be produced by the action of nitric acid on aloes?
61 How were purgatives formerly divided?
62 What was a purgative called which operated upon the whole length of the alimentary canal?
63 Of what general plan of treatment does purgation form an important part?
64 In what diseases, then, will purgatives be particularly useful?
65 In what way do purgatives prove useful in inflammation?

Institutes of Medicine—Examiner, Dr. FRASER.

1 What is Cuvier's division of the animal kingdom?
2 Describe the nervous system of the Radiata.
3 Point out the analogy between this and the nervous system of man.
4 Describe the nervous system of the Mollusca.
5 Point out the analogy as before.
6 Describe the nervous system of the Articulata, and also point out the analogy.
7 If the nervous systems of the Mollusca and the Articulata were conjoined, what would still be wanting to make up the nervous system of man?
8 What is meant by a nervous centre?
9 What are the nervous centres in man?
10 What are the functions of nervous centres?
11 Describe the anatomy of the spinal cord.
12 How do its nerves arise?
13 Which of the roots is continuous with the grey matter of the cord?
14 What other peculiarity has the posterior root?
15 How many spinal nerves are there?
16 What are the theories regarding the central terminations of the spinal nerves?
17 Which of these theories is supposed to be the correct one?
18 What is the proof that some of the nerves terminate in the cord?
19 What is the proof that some are continued on to the brain?
20 What, then, are the functions of the spinal cord?
21 What is the usual stimulus by which the muscles are called into action?
22 What functions are especially under the control of the spinal system?
23 What is the structure of a nervous centre?
24 What is the shape of the nerve vesicles?
25 How many kinds of nerve fibres are there?
26 Describe each variety.
27 In what do they essentially differ?
28 Of what is the axis cylinder supposed to consist?
29 Of what, the white substance of Schwann?
30 What is the use of the latter?
31 Do bloodvessels enter the neurilemma?
32 Describe the different central terminations of nerves.
33 Describe their peripheral terminations.

Anatomy—Examiner, Dr. BRUNEAU.

1 What are the different tunics of the eye-ball?
2 What is the structure of the Sclerotic?
3 Of the Choroid?
4 Of the Retina?
5 What is the shape of the Cornea?
6 What are its layers?
7 What are the humours of the eye?
8 What are the limits of the aqueous humour?
9 How is it divided?
10 What is the origin of the optic nerve?
11 What name is given to the junction of the two nerves?
12 What is that portion called which is situated between the origin of the nerve and the commissure?
13 How are the fibres distributed within the commissure?
14 How do the optic nerves pass into the orbit?
15 Is there anything peculiar about the sheath of dura mater which surrounds the optic nerves?
16 Does the nerve enter the central axis of the globe of the eye?
17 How does it pierce the sclerotic?
18 Describe the superior oblique muscle of the eye.
19 Describe the inferior oblique.
20 What muscles are supplied by the third nerve?
21 What nerve supplies the external rectus?
22 What nerve supplies the superior oblique?
23 Where does the fourth nerve arise?
24 What is peculiar about it?
25 Where does the fifth nerve arise?
26 How far can this tract be traced?
27 What is peculiar about the posterior root?
28 Describe the course of the nerve.
29 What is the shape of the Casserian ganglion?
30 How does it divide?
31 What course does the ophthalmic take?
32 Which of the branches passes between the heads of the external rectus?
33 Describe the lachrymal branch.
34 With what nerves do the terminal filaments communicate?
35 Describe the course of the superior maxillary nerve.
36 What are its branches in the spheno-maxillary fossa?
37 In the infra-orbital canal?
38 On the face?
39 With what branches do they communicate?
40 Describe the femoral artery.
41 By what is it covered superiorly?
42 By what inferiorly?
43 What branches does it give off at its upper part?
44 Of what artery is the deep epigastric a branch?
45 Describe its course.
46 What is its relation to the internal abdominal ring?
48 Where is the profunda given off?
48 What are its branches?
49 What muscles form the fibrous sheath for the femoral artery?
50 What branch is given off in this sheath?
51 Describe the rectus femoris muscle.
52 What other muscles are inserted into the patella?
53 What kind of a bone is the patella?
54 Where are those muscles inserted in the fœtus?

Surgery—Examiner, Dr. CAMPBELL.

1 What kind of an articulation is the knee joint?
2 Is it frequently dislocated?
3 What are its dislocations?
4 Are they generally complete or partial?
5 To what does this joint owe it's great strength?
6 Which of its ligaments are most powerful in preventing dislocation?
7 What kind of an articulation is the hip joint?
8 Describe its ligaments.
9 What are its dislocations?
10 What are the symptoms of dislocation upon the dorsum ilii?
11 How do these differ from those of fracture of the neck of the femur?
12 How would you examine for crepitus in a case of suspected fracture?
13 What are symptoms of dislocation into the obturator foramen?
14 What is the essential difference between the symptoms of this dislocation and those of the former.
15 What causes the bending forwards of the body?
16 What is hernia?
17 What is commonly meant by hernia?
18 How is hernia divided?
19 What are the symptoms of reducible inguinal hernia?
20 What is the character of the tumor when it contains omentum
21 What, when it contains intestine
22 How could you distinguish each when returning it?
23 What are the symptoms of strangulated hernia?
24 What name is given to the process of reducing a hernia?
25 What is the common termination of strangulated hernia if unreduced?
26 What is the result when the tumor sloughs?
27 What means should be employed for reducing a strangulated hernia before having recourse to the operation?
28 What are the boundaries of the femoral ring?
29 Where is the stricture situated in femoral hernia?
30 In what direction would you cut in operating?
31 What artery may sometimes come in the way of the knife?
32 From what artery is the obturator generally given off?
33 What other artery frequently gives off the obturator?
34 What courses may it take to reach the obturator foramen?
35 Which of these exposes it to the knife of the operator?
36 How would you avoid wounding it in such a case?
37 What is meant by concussion of the brain?
38 Describe a case of concussion.
39 What should be done in the first stage?
40 Why should the head be shaved
41 What is to be feared in the second stage?
42 What symptoms would indicate excessive reaction or incipient inflammation?
43 What *is* an ulcer?
44 By what is it caused?
45 What always precedes or accompanies it?
46 What is the general division of ulcers?
47 How are those not tending to heal, subdivided?
48 What are the characters of an indolent ulcer?
49 In whom are they generally found?
50 What treatment do they require
51 Is it absolutely necessary that rest be maintained after the

ulcer has been properly strapped?
52 What should be the constitutional treatment?
53 What diet would you recommend?
54 What are the characters of an irritable ulcer?
55 Where are they most frequently situated?
56 Is the pain of these ulcers uniform and constant?
57 How must these ulcers be treated?
58 What lotions may be used to relieve the pain?

Chemistry—Examiner, Dr. SUTHERLAND.

1 What is volatile oil of bitter almonds?
2 By what process is it obtained?
3 Does it exist already formed in the almond kernels?
4 How, then, is it formed?
5 Is it pure when first obtained?
6 What substances does it contain?
7 Does it contain nitrogen?
8 What other proximate principle allied to this, is obtained from the organic kingdom?
9 Does Benzoic acid also contain the radical Benzule?
10 What are the characters of Benzoic acid?
11 From what is it obtained?
12 By what process?
13 In what pharmaceutical preparation is it employed?
14 From what is tartaric acid derived?
15 In what condition is it deposited in the wine casks?
16 What is this deposit called?
17 In what condition does it exist in the grape?
18 Is it deposited from new wine?
19 Why is it deposited after fermentation?
20 Describe the process by which the acid is isolated.
21 What are the products of the destructive distillation of wood?
22 Mention the liquid products.
23 What is pyroligneous acid?
24 For what is it employed?
25 What are the other names for Methylic alcohol?
26 What radical does it contain?
27 Is it susceptible of the same transformations as ordinary alcohol?
28 Mention all that series of radicals.
29 In what does Acetyl differ from Ethyl?
30 Is it a derivative of Ethyl?
31 By what means is it derived?
32 How is alcohol converted into acetic acid?
33 Does the action take place spontaneously?
34 How is it induced?
35 How many equivalents of oxygen, then, does acetic acid contain?
36 How many are contained in alcohol?
37 What is Ethal?
38 From what is it obtained?
39 What radical is contained in it?
40 What is Glycerine?
41 With what is it combined?
42 What are the relative proportions of acid and base.
43 What names are given to these compounds respectively?
44 How may glycerine be separated from the acids?
45 What is this process called?
46 Describe the process for isolating glycerine.
47 What are the elements of fats?
48 Are fats nutritious?
49 Are they sufficient alone to support life?
50 What else is necessary?
51 Is azotized food alone, sufficient to support life?

52 What kind of food contains the largest amount of nitrogen?
53 How comes it that animals can live on vegetables alone?
54 What are the nutritious azotized substances found in vegetables?
55 What it Lactin?
56 What are the other constituents of milk?
57 What causes it to coagulate?
58 Is the lactic acid formed spontaneously?
59 What is this ferment?
60 Describe the process by which lactic acid may be isolated.
61 Is butter similar to the other fats?
62 What are its constituents?
63 What acids does it contain?
64 With what substance are they united as a base?
65 What are the chief salts formed in milk?
66 Does milk contain all the elements necessary for the growth and nutrition of the body?
67 How is this proved?
68 What purposes do the phosphates in milk serve to fulfil?
69 For the nourishment of what tissues are they more particularly essential?
70 In what condition does the phosphorus exist in the tissues?
71 Does it exist in the brain in any other condition than as a constituent of albumen?
72 What are the fatty acids of the brain?
73 From what is strychnia obtained
74 How is it separated?
75 Do you remember any other process?
76 With what acid is it combined?
77 From what is quinine obtained?
78 With what acids is it combined?
79 What other alkaloids are associated with it in Cinchona?
80 What effect has creosote on albumen?
81 In virtue of this property for what purpose is it employed in surgery?
82 What other substances are used as hæmostatics?
83 What is tannin?
84 From what is it obtained?
85 What special character do plants which contain tannin possess?
86 What other substance closely allied to tannin is found in plants?
87 How does Gallic acid differ from tannin?
88 Is tannin soluble in water?
89 What is the action of tannin in the process of tanning leather
90 How is Gallic acid produced from tannin?
91 What other acid is at the same time produced?
92 If a heat of 160° be applied to albumen, what is the result?
93 When albumen has been coagulated, how may it be redissolved?
94 What organic substance has this power?

Medical Jurisprudence—Examiner, Dr. WRIGHT.

1 What are the first symptoms of insanity?
2 Are the habits of the individual always radically changed?
3 Are the moral and intellectual faculties always equally and simultaneously affected?
4 How is intellectual insanity divided?
5 What are the signs of partial intellectual insanity?
6 Is the existence of a delusion always apparent?
7 What are the varieties of partial moral insanity?
8 In which sex is pyromania most frequently found?
9 At what period of life?

10 Are homicidal impulses of frequent occurrence amongst the insane?
11 What is the proportion?
12 In whom is this impulse most often found?
13 What ratio does the frequency of suicidal impulses bear to this?
14 What circumstances would lead you to infer that a murder was the result of a homicidal impulse?
15 In such cases is there generally only one wound, or are there many?
16 Is the impulse preceded or not by premonitory symptoms?
17 What is the condition of the system at the time of the impulse?
18 What disease of the nervous system is frequently co-existent
19 What is the legal test by which insanity is judged to be present or absent?
20 If it can be proved that the person is aware of the distinction between right and wrong, does it follow that he is not insane?
21 What may constitute the insanity in such a case?
22 What is generally the condition of the will in insane persons?
23 Is the inability to distinguish between right and wrong, proof positive of insanity?
24 On what may this inability depend?
25 How would you distinguish a case of real, from one of feigned insanity?
26 Do insane persons sleep much?
27 Are they readily fatigued?
28 How is this power of endurance accounted for?
29 For what purposes might pregnancy be concealed?
30 For what purposes might it be feigned?
31 What are means of calculating the duration of pregnancy?
32 What is commonly considered as the duration of pregnancy?
33 Are nine solar months equal to ten lunar months?
34 By how many days may they differ?
35 Is the period of pregnancy ever prolonged?
36 What was the duration of the longest incontrovertible case on record?
37 What is the earliest period at which a child is supposed to be viable?
38 What is meant by a child's being viable?
39 Is the *fœtus* supposed to be alive from the time of conception?
40 Does the law make any distinction between procuring abortion before, and after quickening?
41 To constitute the crime of infanticide, is it necessary that the whole of the child be expelled?
42 Is it necessary that it be separated from the mother?
43 How are the signs divided by which we infer that a child has been born alive?
44 What are the signs derivable from the circulatory system?
45 What are the negative signs of the child's having been born alive?
46 What are the signs of intra-uterine maceration?
47 In what does it differ from putrefaction?
48 What are the post mortem proofs of pregnancy?
49 At what period of pregnancy are the characters of the *corpus luteum* most strongly marked?
50 At what period does the corpus luteum cease to afford any indication?
51 What appearance is then found on the surface of the ovarium

52 Where is the *middle point* situated in the fœtus of six months
53 Where, in the adult?
54 How could you distinguish between death caused by the pressure of the umbilical cord round the child's neck, and strangulation by some other means?
55 What would be the condition of the deep structures of the neck in each case?
56 What circumstances independent of pregnancy, may cause enlargement of the uterus?
57 What name is given to a collection of gas in the cavity of the uterus?

Obstetrics—Examiner, Dr. McCulloh.

1 What are the displacements to which the uterus is liable?
2 What treatment is required in a case of relaxation?
3 What, in a case of procidentia?
4 What are the symptoms of retroversion?
5 If retention of urine is complete in a case of retroversion, what treatment must be had recourse to?
6 How would you reduce this displacement?
7 If it cannot be reduced without violence what must be done?
8 At what period of pregnancy does retroversion most frequently occur?
9 At what period can the uterus be felt above the pubes?
10 Where is the fundus uteri situated at the end of the sixth month?
11 In what cases would you think it necessary to use the forceps?
12 If the woman had been long in labour, and the forceps could not be applied, while urgent symptoms were at the same time setting in, what would require to be done?
13 How would you perform craniotomy?
14 What bad effects are to be feared after severe and protracted labours?
15 How are fistulæ after such labours to be treated?
16 How may inversion of the uterus be caused?
17 What would you do in a recent case?
18 If the inversion had remained for several hours, is it probable that reduction would be practicable?
19 What are some of the most fatal puerperal diseases?
20 At what period does puerperal fever usually set in?
21 What are the symptoms of puerperal fever?
22 What is the character of the pain?
23 Is it a contagious disease?

Practice of Physic—Examiner, Dr. Holmes.

1 How are fevers *divided*?
2 What are the divisions of continued fever?
3 Describe a case of common continued fever?
4 In what parts is pain most particularly complained of?
5 How is such a case to be treated?
6 What is the *usual* duration of continued fever?
7 What division of fevers has *lately* been made, based on certain post mortem appearances found in many cases?
8 What lesions are found after *death from typhoid fever*?
9 What prominent symptom during life do these lesions give rise to?
10 What is the *diagnosis between* typhus and typhoid fevers?
11 What is generally the appear-

ance of the abdomen in typhoid fever?
12 What is *the cause* of typhus?
13 How is this supported to originate?
14 How do bad ventilation and impure air, promote the accession of typhus?
15 In what way do they prevent the elimination of the waste materials from the system?
16 Is typhoid fever a contagious disease?
17 Describe that condition of the system usually designated typhoid.
18 What is the usual condition of the tongue?
19 What is the treatment necessary in such a state?
20 What complications are apt to arise in a case of fever?
21 How must bronchitis be treated when it occurs in the course of fever?
22 Is general bleeding applicable in such cases?
23 How is affection of the brain indicated?
24 How must it be treated?
25 How is the nervous system frequently affected in severe cases?
26 What remedies are required?
27 What anti-spasmodics would you use?
28 In what doses would you give assafœtida?
29 What remedies could you use which would combine stimulus with an anti-spasmodic action?
30 How is the heart apt to become affected in severe cases of fever?
31 How is softening of the heart known?
32 What indication for treatment does softening afford?
33 How does pericarditis generally come on?
34 What is the character of the pain?
35 What is the condition of the membrane in the first stage?
36 What sound does this give rise to?
37 Is the same sound heard in the next stage?
38 What is then the condition of the membrane?
39 What is the cause of the dyspnœa?
40 What effect does the roughness in the first stage produce upon the heart?
41 What is increased action called?
42 What effect does the effusion produce?

We have been induced to give publicity to the above questions from an oft expressed desire that has come to our ears to know something of the nature of the examination to which candidates for M.D. are subjected by the Medical Faculty of M'Gill College. It is customary in other parts to record the catechetical tests by which students have been tried, and we know of no valid objection to such a procedure. Scarcely a volume of the *London Medical Gazette* or *Lancet* can be taken up without finding mention made of the late examinations undergone at the University of London, or elsewhere, at certain periods. And these expositions are always considered to be highly interesting to readers generally. It is not for us, circumstanced as we are in relation to the University, to make any comment upon the character of the questions, lest, perchance, our observations might be misconstrued into those savoring

of flattery. We may, however, remark in explanation that the examinations are *viva voce*, and conducted alternately by the Professors in pairs, to each of whom is allotted a quarter of an hour for the discussion of his subject. A different set of questions is given to each student. The above were carefully written down, while fresh in the memory, by one of the successful candidates of last term—a gentleman who has already made a favorable appearance in our *Chronicle*.

HOSPITAL REPORTS.

MONTREAL GENERAL HOSPITAL.

Case of Fracture of the Spine, with partial dislocation and effusion of blood upon the Spinal Cord.

John Lismore, an Irishman, aged 30, employed as storeman in a wholesale establishment, was admitted about 2 o'clock, P.M., on the 13th of March. He had fallen through a hatchway from the second story into the cellar. The fall was partly broken by his boot being caught in the hook attached to the pulley used for hoisting goods. He could not tell in what position he had fallen, but he thought that he struck his shoulder on the edge of the hatchway in the first story. He was unable to move after the fall, but, though considerably stunned, he soon regained his consciousness. He was seen a few minutes after the accident by a medical man, but no fracture or dislocation of any part was discoverable. He complained chiefly of the right arm and shoulder, and could scarcely bear the slightest manipulation. He was ordered to be immediately removed to the Hospital.

On admission he had all the symptoms of shock; pallor, coldness of the extremities, weak and rapid pulse, &c., &c. There was paralysis of most of the voluntary muscles, but sensation remained tolerably perfect. He could not bear the slightest motion without crying out, and it was with great difficulty he could be undressed and put to bed. He was again carefully examined and nothing abnormal found, with the exception, perhaps, of a slight prominence of the last cervical vertebra, and a very obscure sense of motion, but neither of the signs so well marked as to justify a decided opinion. The case presenting the characters of spinal concussion, rest was simply enjoined, with an anodyne if necessary.

On the 14th he felt better; had slept a good deal during the night, and had regained the use of the inferior extremities, especially of the left leg. He was still incapable of moving his arms. His urine was

voided with difficulty, and in small quantity at a time. A stimulating liniment was ordered to the spine, and the anodyne to be repeated at night.

15th.—Scarcely any change since the previous day. Moves his legs, but still incapable of moving the arms. Pulse slightly accelerated and full. Breathing tranquil. Bowels have not been moved since the accident. To have a black draught immediately, and the anodyne at night if required.

16th.—Spent a restless night. He complains of a general feeling of discomfort, but of no particular pain. He moves the left leg readily, but when asked to move the right continues to move the left unconsciously. The paralysis of the arms is still almost complete. He passes his stools under him in the bed, and sometimes also the urine, though he is occasionally conscious of the desire to empty the bladder. The breathing is very laborious, all the muscles of forced respiration being brought into play. The surface is covered with perspiration, the pulse varies between 130 and 150, sometimes approaching 200, and has somewhat of a hard character.

He was again carefully examined, but nothing found sufficiently definite to make the existence of a fracture a matter of certainty. The spinous process of the seventh cervical vertebra, as formerly, was prominent, and seemed to move obscurely under the finger, but no crepitus was felt.

These signs, however, along with the symptoms of compression which were coming on, made it evident that pressure was being exerted upon the cord either by a fragment of bone, or by some effused matters, probably the former, for motion caused an aggravation of all the symptoms. About ten ounces of blood were taken from the arm, followed by cupping to about the same amount along the spine, and a pill, consisting of Calomel grs. ij. and opium ¼ gr., directed to be given every hour.

17th, 9, A.M.—Seems easier. The pulse, after the bleeding yesterday, became stationary at 130, and still remains so. The breathing is not so laborious, and he slept a little during the night.

12 o'clock, Noon.—Sinking. The breathing is slower, but more labored, the surface is clammy, and the pulse about 148, small and thready. He complains of very great weakness.

He was ordered six ounces of wine, and beef-tea, but about two o'clock he suddenly expired, after having been raised up in bed at his own request.

Autopsy.—The spine was examined about twenty hours after death, the body, meanwhile, having been lying on the back.

Cadaveric rigidity was extremely well marked, and there was the usual amount of gravitation of blood to the depending parts. On making an incision along the spine, the soft parts were found to contain an unusual amount of blood, and in several places there were large clots which had evidently been effused during life. On reaching the spinal column, the spinous process of the last cervical vertebra was quite moveable, and on examination, was found fractured on each side, immediately internal to the transverse processes. There was also a considerable separation between the bodies of the last cervical and the first dorsal. On raising the fractured spinous process, a large clot of blood, probably ¾ of an inch

in diameter, was found beneath it, lying on the surface of the cord, and adhering so firmly to the latter as to remain firmly attached after the spinal cord had been removed from the canal. There was no softening or other lesion of the cord itself, death having apparently resulted from the pressure of the clot, together with that resulting from the preternatural mobility existing between the adjoining vertebræ.

Case of Mentagra, or Sycosis Menti, cured by local means.

John M'Donald, a Scotch laborer, aged 35, was admitted under Dr. Howard February 8th, with Sycosis Menti, affecting one side of the chin and upper lip.

He has suffered from it for several years, and has been several times cured, but the disease invariably returned in a short time. The treatment, he says, consisted in the internal use of Donovan's solution; with lotions and ointments of various kinds externally.

He is not aware of the manner in which the disease was contracted, but he thinks it was from shaving with a razor which had been previously used by a person laboring under the same disease. He describes it as having first appeared in the form of little pimples or blisters, among the roots of the hair, and these gradually drying up as fresh ones appeared. The pain was often severe, especially when he attempted to shave.

When admitted, the affected part was mostly covered by dry scales, and, on close examination, several pustules could be seen, each having in its centre a hair, which latter could be removed by the slightest force and with scarcely any pain.

The disease being looked upon as chiefly, if not entirely, of a local nature, and cases of the same kind having been successfully treated on former occasions by means of a lotion of Donovan's solution diluted with water, it was resolved to try the effect of the same plan of treatment in this case. Accordingly, after a poultice had been kept upon the part for a day or two to separate the crusts, a lotion was applied by means of lint and oiled silk, consisting of 1 part of Donovan's solution diluted with 15 of water. An occasional black draught was also ordered for the purpose of keeping the bowels gently open.

Feb. 14.—Lotion causes considerable smarting when first applied but the pain is by no means excessive. The strength of it to be increased to 1 part in 12.

26th.—The part is much improved in appearance, the pustules are much fewer in number, and chiefly confined to the margins of the affected part. He complains of considerable smarting and irritation from the lotion. A poultice to be applied till the irritation subsides.

28th.—The lotion was re-applied, and in addition, he was directed to extract all the diseased hairs with a pair of forceps, a feat easily accomplished, the hairs requiring removal being more or less loosened by the disease at their roots.

March 20th.—He has continued to improve steadily since last report, and the chin is now in a better condition than at any time since the disease made its appearance, in fact the only vestiges of its existence are the absence of the beard from the part affected, and slight thickening and induration of the integuments.