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## Original Communications.

### ANEURISM OF THE THORACIC AORTA.*


BY A. MCPHEDRAN, M.B.,

Lecturer on Clinical Medicine in the University of Toronto.


GENTLEMEN,—Before entering on the discussion of this case of aneurism which I bring before you to-day, let us dwell for a little on the causes of aneurism other than traumatic cases. Preceding the development of aneurism there is weakening and loss of elasticity of the wall of the artery; to this there are very few, if any, exceptions, as a healthy artery will probably resist successfully the highest blood pressure that can be brought to bear on it. The weakening of the arterial wall is usually due to atheroma; other occasional causes are simple inflammatory softening from trauma, or rheumatism, calcifications, and fatty degeneration. Disease of the artery occurs as a senile change, but may be produced at early age by syphilis, gout, Bright's disease, chronic alcoholism, lead poisoning, etc. In the ordinary course of events, in late middle life, the arteries, at least the larger ones, begin to suffer from senile change before the heart shows any signs of failure. This may be called the "aneurismal age," as the weakened arteries are apt to give way before the pressure of the blood forced into them by the still vigorous heart. Aneurism is therefore most frequently met with in persons from 40 to 50 years of age; they are very rare before 30, because the walls of the arteries are yet seldom diseased; and they are rarer still after 60, because, though the arteries may be much weakened by senile changes, not only has the heart lost much of its vigor from the same cause, but the volume of blood in the body is now so much diminished that it would be scarcely possible to raise the arterial tension sufficiently to cause aneurismal dilatation even of the weakened arteries.

From what has been said you will see that while disease of the arterial walls is the predisposing cause of aneurism, the active agent in their production is increased blood pressure. The wall of the artery may become so weak that even the extra pressure induced by coughing may be sufficient to cause it to give way. Hence it will be readily seen how occupation has an important bearing on the production of aneurism. Those people who are engaged in heavy labor, and therefore subject to great strain, are most liable to aneurism. But straining not only tends to cause the weakened arterial wall to give way, but, by causing repeated over-distension, will lead to degeneration of the vessel wall, and thus prepare the way for its aneurismal dilatation.

The clinical history and symptomatology of aneurism of the aorta is well illustrated by the patient before you. The disease may begin with a sudden onset of symptoms, or by a gradual failure of health; this case is one of the first and more usual class. The following extract is from the history taken by Mr. H. Grundy:

Edward A., aged 49, Irish, good family history. His own history good except some rheumatism in 1866 and 1872; had gonorrhœa many years ago; served as a cavalry soldier for 20 years; took also much gymnastic exercise. Last July, while lifting some heavy timber, he felt a sharp, shooting pain in right chest, in which some pain has continued ever since, with exacerbations, and often shoots through the chest and into the shoulder; also a peculiar metallic cough, increased by exercise; little or no expectoration. His breath is short and the respiratory murmur is weak all over right lung—normal over left. His chest is well developed and shows some bulging over right 2nd and 3rd costal cartilages, which, however, was probably produced during boyhood, or while a soldier. In the region of this bulging, pulsation is to be seen extending three inches to the right of sternum. Over this area there is absence of respiratory sounds; no murmur, but great accentuation of 2nd sound of the heart; using a solid stethoscope there is well marked systolic and slight diastolic shock felt by the ear. There is dullness and increased resistance

* Abstract of a Clinical Lecture delivered at the Toronto General Hospital, Dec. 17th, 1888.

on percussion over this area except around the margin. Pulsation is felt to be uniform all over this area; it is synchronous with, and stronger than that felt at the apex of the heart; there is no thrill. Pressure over this area causes cough and pain, as does also lying on the back or left side. The apex beat of the heart is weak and displaced nearly an inch downwards; the sounds are normal; the radial pulses are weak, the left being considerably weaker than the right. The superficial veins over the upper part of the chest are slightly dilated. The pupil of the right eye is considerably larger than the left; it reacts slowly to light, but very well to accommodation.

Now let us consider the important points in this history seriatim and endeavor to ascertain the cause and interpret the significance of each. In his previous history there are three things to be noted, viz.: his occupation and mode of life, his having had rheumatism and also gonorrhœa. In discussing the etiology of aneurism, we said that *straining* was one of the most important causes of atheromatous degeneration of arteries and *the* cause, in most cases, of the aneurismal dilatation of the vessel. This man's life as a soldier, was one subject to repeated and severe exertion and that too under the additional strain of tightly fitting dress and accoutrements, conditions that have been adduced to account for deaths from aneurism being about ten times as frequent among soldiers as among civilians. The sudden onset of pain in the chest and other symptoms, leave no room for doubt that the strain of lifting caused the weakened wall of the aorta to give way, so that the case illustrates in the clearest manner the efficacy of straining in causing first the degeneration of the walls of the aorta, and secondly, the formation of the aneurism. The rheumatism may have helped on the atheromatous change in the wall of the artery. That he had gonorrhœa has some possible connection, in that he may also have had syphilis, although he never showed any evidence of it.

Of the symptoms of aneurism, *pain* is one of the earliest and most troublesome. It is caused by stretching of the nerve fibres in the arterial wall and by pressure of the tumor on neighboring organs. There is usually, as in this case, a fixed pain with exacerbations in which there are sharp darting pains in various directions; the pain is often affected by change of position. Thus, variability in character and seat of the pain possesses great diagnostic significance and is due chiefly to change in blood-pressure, hence any excitement or exertion increases the shooting neuralgic pain. If the tumor cause erosion of the vertebræ or sternum, gnawing pain results. The pain is more persistent than that of angina pectoris, and causes much less anxiety.

The cough, dyspnœa and feebleness of respiratory murmurs in right lung are all probably due to one cause, viz.: narrowing of the right bronchus by pressure of the tumor. The irritation of the bronchus will cause some collection of mucus at the narrowest part, which in turn will excite the cough. The somewhat metallic sound of the cough suggests some spasm of the glottis as a cause; if there is spasm it must be slight and only occasional, as the voice is natural and the laryngoscopic mirror shows a normal condition of the vocal cords. When spasm of the glottis exists it is caused by irritation of the vagus or recurrent laryngeal nerve by pressure of the tumor. When the pressure on the recurrent laryngeal increases so as to destroy it, then paralysis of the corresponding vocal cord results, and is easily demonstrated by the throat mirror. If both cords are paralyzed, voice is completely lost and dyspnœa very great; this is rare. These respiratory symptoms are paroxysmal, on account of the varying degree of distension of the tumor. Anything increasing the arterial tension distends the tumor, thus suddenly lessening the calibre of the bronchus or increasing the irrritation of the nerve.

The dilatation of the right pupil is caused by irritation of the cervical sympathetic, through pressure on the nerve filaments, which pass from the anterior roots of the spinal nerves in the cilio-spinal region—the lower cervical and upper dorsal—to the cervical ganglia of the sympathetic, thence up to supply the dilator muscles of the iris. Pressure sufficient to irritate these nerves causes dilatation of the pupil, as in this case before you; if the nerves are paralyzed by the pressure then the pupil contracts, as the sphincter muscle of the iris is unapposed. The condition of the pupil usually varies much from day to day; yes, even from hour to hour, as it depends on the degree of distension of the aneurism by the blood-pressure. This fact possesses much significance in distinguishing an-

eurism from a solid thoracic tumor. These pupil and larynx symptoms are sometimes the first symptoms of thoracic aneurism.

Let us now examine the pulsation. It appears to be heaving. Were the second rib out of the way, it is probable the pulsation would be felt to be distinctly expansile, judging from what we feel in the intercostal spaces. It is synchronous with, and considerably stronger than the apex beat of the heart. This is a point strongly dwelt on by Balfour, as the impulse of a solid tumor is seldom as forcible as that of the heart, and never much more forcible. This is true also of an aneurism containing much fibrin. The impulse of aneurism is best brought out by placing one hand over it and the other on the back, and noting the pulsation after complete expiration. There is no thrill in this case, but then thrill is rare in sacculated aneurism.

There is no bruit in this aneurism, but bruit is not a constant symptom in sacculated aneurisms; on the contrary, it is probably absent in one-half the cases. I wish to impress this on you, lest you attach too much importance to it, as is too often done. Note particularly the heart-sounds as heard over the tumor: both are distinct, the aortic being highly accentuated. This is probably quite as distinctive of aneurism as bruit. Note also that a solid tumor, pressing on the aorta sufficiently to cause such distinct pulsation, would almost certainly cause a murmur. I think it certainly would, and no murmur is heard here either over the tumor or along the great vessels. Note next the systolic and diastolic shocks felt on auscultating with a solid stethoscope, such as this. The diastolic shock accompanies the clear ringing second sound. This second shock is most significant of aneurism, and is, when preceded by a systolic shock, probably pathognomonic.

Of all these symptoms, the following point directly to aneurism, viz.: the character of radial pulses, the rhythmic expansile, strong pulsations, the systolic and diastolic shock signs and the accentuated aortic second sound heard all over tumor; one sign, bruit, is absent. Any one of these signs might possibly be produced by any tumor, but the presence of so many of them renders the diagnosis of aneurism positive. The other symptoms, viz.: the pain, dilated pupil, dyspnœa, cough, weak respiratory murmur in right lung, dilated veins, etc., are pressure signs, and might be produced by any tumor. If the condition grows worse, several other symptoms may be added, as dysphagia from pressure on the œsophagus; œdema, local or general, over the region drained by the superior vena cava, change or loss of voice, whiffing respiration, etc. We will not dwell on the differential diagnosis, but only mention the chief diseases liable to be mistaken for aneurism; solid tumors have already been referred to; abscess and localized empyema; aortic valvular insufficiency, especially if the apex of the lung is indurated and retracted, uncovering the aorta; dilated heart, and pericardial effusion.

The prognosis is, of course, not favorable. The treatment we are pursuing consists of as perfect rest as possible, rising not being allowed on any account; limiting the liquid consumed in 24 hours to about 10 ounces, and solids to 12 or 15 ounces. The bowels to be kept open, so that there be no straining when the bed-pan is used. If there is much pain we will try an ice-bag over the pulsating region, having it suspended so that it will only lightly touch the surface, that the pressure may not become irksome. If that is not sufficient then opiates will be given at night as needed. We hope, however, that quieting of the circulation by rest and low diet will so relieve the tension in aneurism that the pain will not be troublesome. For medicines, we are giving iodide of potassium. He is taking 20 grains daily at present; this will be gradually increased to 3j. daily. How the iodide acts is not known, but great benefit is claimed for it by many good observers. Should all these means fail to give any relief, after a trial of a few weeks, it will be in order then to discuss the practicability of securing the deposit of fibrin in the interior of the sac, by passing a few feet of fine wire into it through a fine canula. Neither this nor any other operative means offer much hope of success, but the pros and cons can be discussed, and if thought advisable laid before him for him to choose.

## TREATMENT OF EMPYEMA.*

BY T. K. HOLMES, M.D., CHATHAM, ONT.

The object of this paper is to present a tabular view of twenty-two cases of empyema treated in general practice. The cases are too few to base an absolute mode of treatment upon, but they are quite varied in character and may elicit the opinions of others, and so aid in the management of a treatment of disease both common and dangerous.

*Read before the Ont. Medical Association, June, 1888.

# Tabular View of Twenty-two Cases of Empyema Treated in General Practice.

| No. | Name. | Age. | Duration. | LEADING FEATURES. | TREATMENT. | RESULTS. |
|---|---|---|---|---|---|---|
| 1 | S. Z. | 22 Yrs. | 4 Weeks. | Right localized. (Mulatto.) | Incision, free drainage, Aug. 2, 1868 | Died of phthisis six months after. |
| 2 | J. B. | 4 " | 3 " | Right general | Spontaneous opening in 6th space in line of axilla, June 4, 1869 | Recovered in four weeks. Not washed out. |
| 3 | P. L. | 42 " | 8 " | Left general. Pus offensive. | Spontaneous opening in 6th space in line of axilla, Mar. 4, 1870 | Recovered in ten weeks. Not washed out. |
| 4 | J. A. | 18 " | 5 " | Right localized | Spontaneous rupture into bronchus, Nov. 18, 1871. Several attempts to reach pus with needle failed. | Died suddenly at time of rupture. |
| 5 | N. A. | 17 " | 12 " | Right localized | Spontaneous rupture into bronchus. Subsequent fruitless attempt to reach pus with aspirator. | Died of phthisis. |
| 6 | D. K. | 44 " | 2 " | Right localized | Incision and escape of 4 oz. of putrid pus on the 30th March, 1879. | Died April 10, 1879, from injuries by falling tree which had fractured skull and ribs and thus caused the empyema. |
| 7 | Mrs W. | 22 " | 10 " | Right general | Trocar and drainage tube, 48 oz. offensive pus discharged on Sept. 19, 1878. Washed out with carbolic acid. Tube inserted below angle of scapula about two inches. | Cured in three months. This case came on a few days after confinement. |
| 8 | Mrs. J. | 69 " | 9 " | Right general | Trocar and tube, July 10, 1881. Pus offensive. Washed out with carbolic acid, one per cent., every four hours. | Perfect recovery in eight weeks. |
| 9 | T. McK. | 11 " | 6 " | Right general. | Trocar and tube Mar. 24, 1880, pus large in quantity and offensive. Carbolic acid, one per cent. | Recovery complete in eight weeks. |
| 10 | Mrs. M. | 20 " | 4 " | Right localized | Trocar and tube, Jan. 11, 1885. One pint of pus escaped from 7th intercostal space behind. | Patient had phthisis and died a month after without having been made any better by the operation. |
| 11 | W. H. | 26 " | 2 " | Left general | Trocar and tube two inches below angle of scapula, on Dec. 3, 1883. Two pints putrid pus. Washed out with carbolic acid, 1—128. | Rapid and perfect recovery. Well in five weeks. |
| 12 | Mrs. W. | 31 " | 3 Days | Left general | Aspirated 20 oz. pus, Oct. 16, 1884. She was confined some days before aspiration and was pretty well on the 13th. | Died same night, *i.e.*, Oct. 16. |
| 13 | P. H. | 38 " | 3 Weeks. | Right local | Spontaneous rupture into bronchus, May 7, 1883. Pus very offensive but not large in quantity. | Recovered in six months. |
| 14 | W. H. | 32 " | 3 " | Left local | Spontaneous rupture into bronchus, May 1, 1883. | Recovered in nine months. Hectic fever every day for three months. Pus offensive. |
| 15 | J. C. | 27 " | 9 " | Right general | Spontaneous rupture into bronchus, Sept. 2, 1881. Rapid failing, great emaciation till Sept. 30th, when I put in rubber tube 3 inches below angle of scapula and let out large quantity of putrid pus. | Immediate improvement followed operation and recovery complete in three months. Washed out. Has borne two children since and seems perfectly well now. |
| 16 | S. W. | 6 " | 2 " | Left localized | Trocar and tube, April 13, 1886, 8 oz. sweet pus. | Fever continued high and he died in two weeks. No benefit from operation. He belonged to a family most of whom had died of phthisis. |
| 17 | R. G. | 8 " | 3 " | Left general | Trocar and tube, May 29. 1886, 16 oz. sweet pus. | Recovery in three weeks. Not washed out. Pus never became offensive. Tube removed in sixteen days. |
| 18 | T. S. | 24 " | 2 " | Left localized. Patient broken down by dissipation. | Trocar and tube, May 16, 1886. | Improved very fast for a week when he died suddenly with symptoms of pulmonary embolism. |
| 19 | T. F. | 4 " | 8 " | Right general. Pus pointed two inches below angle of scapula | Incision and tube, Aug. 4, 1886, a pint of sweet pus | Rapid recovery. Tube removed permanently in two weeks |
| 20 | E. S. | 3 " | 6 " | Left general. Temp normal at time of operation and for several days before. | Trocar and tube, July 23, 1887, pus 20 oz. and sweet. Not washed out. | Tube removed in seven days and recovery perfect then. Pus remained sweet. |
| 21 | S. B. | 10 " | 3 " | Right general | Trocar and tube, Feb. 27, 1888, about 24 oz. sweet pus. Not washed out. | Tube removed on fourteenth day and not replaced. Recovery perfect. |
| 22 | J. G. | 26 " | 4 " | Left general | Aspirated Mar. 25, 1885, and two quarts of clear serum removed. Aspirated again April 15, and three pints of pus removed. Drainage tube put in May 7, 1885, and the cavity is still discharging. Patient refuses further treatment. | I was consulted Sept. 2, 1885, and have seen patient once since, but could not persuade him to undergo resection of ribs. |

Mr. Godlee has called attention to the frequency with which physicians overlook the nature of empyema, and as several of the cases here reported were for some time unrecognized by those in attendance, it is fair to conclude that they sometimes present symptoms of a puzzling character. Care however, even in obscure cases, will seldom fail to reveal the true character of the disease.

The experience afforded by these twenty-two cases has convinced me of the following:

1st. The importance of an early recognition of the case. 2nd. The necessity of giving free and constant exit to the pus. 3rd. That when pus has discharged through the bronchi with no amelioration of symptoms, an external opening may be followed by the best results as in case XV. 4th. That the most unpromising cases are those occurring in the puerperal state, and those in phthisical subjects. 5th. That resection of the ribs is not necessary as often as some modern writers affirm. 6th. That the entrance of unpolluted air into the pus cavity does not prevent cases from doing well. 7th. That while washing out the cavity has not, in my experience, been accompanied by any accident or any bad result, it is unnecessary, when the pus is healthy, to do so.

Of the twenty cases, eight died: 4 of phthisis, 1 from traumatism, 1 from embolism, 1 from asphyxia, and 1 from pyæmia. Of the fourteen recoveries all were complete, except one in which a fistula remains.

The percentage of fatal cases is large in this series but an analysis shows that only one of the fatal cases could reasonably have been expected to recover. This was case IV, the patient dying very suddenly from escape of pus into the lung; although attempts were made to withdraw some of the fluid by means of a long needle attached to a syringe. I regret these efforts were abandoned for the time, because it is quite likely that a free external discharge even as late in the course of the disease as when I saw him would have averted death.

Leaving out this case and the four that had phthisis, there remain three deaths to account for. These are cases VI, XII, and XVIII. Case VI was a man who was injured by a falling tree, having a severe fracture of the skull, a broken clavicle, broken sternum and several broken ribs, and his condition was so serious that it is almost certain he would have died even had empyema not supervened.

Case XII was pyæmic in character, and ran such a rapidly fatal course as to convince both the attending physician and myself that such cases never get well. She was confined of her second child on Oct. 13th. The labor was normal and no symptom excited alarm until the evening of the 15th, when a chill occurred, followed by fever and accelerated breathing. On the morning of the 16th her attending physician detected an effusion in the left pleural cavity, and on using an aspirator the same evening with the hope of relieving the urgent dyspnœa, the fluid was found to be pus of a light colored, unhealthy appearance. She died the same night.

Case XVIII made such rapid improvement for a week after paracentesis, as to warrant the strongest hope of complete recovery, but at the end of that time he suddenly became breathless and cyanosed and died almost immediately. A post mortem could not be obtained but, the symptoms preceding death exactly resembled those of pulmonary embolism. Some of the cases that recovered presented features of sufficient interest to merit a reference. Case VIII was believed by the first physician who attended her to be one of pneumonia, and she was subsequently treated for four weeks by a second physician as suffering from typhoid fever. Although sixty-nine years of age and greatly exhausted by nine weeks illness, her recovery was prompt and complete after paracentesis. The first physician's diagnosis may have been correct, as empyema sometimes complicates or succeeds pneumonia.

Case XI occurred in a strong young Englishman on whom I had operated for stricture of the urethra by divulsion. The stretching of the stricture was followed in four days by pyæmia, a number of abscesses formed in different parts of the body, and pus accumulated in the pleural cavity at the same time. Notwithstanding such a dangerous condition he made a good recovery.

Case XV illustrates the advantage of paracentesis in certain cases of spontaneous discharge through the bronchial tubes without relief. She had been ill nine weeks when I first saw her and pus had been freely expectorated four weeks, with constant loss of flesh and strength. The emaciation was extreme, and there were hectic

fever and profuse sweating. It had been considered acute tuberculosis, and the pns was thought to come from a cavity in the lung. It is probable that the rupture into the bronchial tubes occurred near the upper part of the lung, and that the pus cavity had been unable to empty itself, for on introducing a large drainage tube in the eighth intercostal space below the angle of the scapula, a large quantity of thick putrid pus came away, and from this time improvement was uninterrupted and recovery was complete in three months. She has borne two children since and is now in perfect health.

Cases XVII, XX and XXI are instructive, as showing how quickly children generally get well after paracentesis, even when the disease has lasted many weeks. In none of them was the cavity washed out, nor did the pus become offensive, although air entered freely.

Case XXII is the only one I have met with in which pus collected after the aspiration of serum. He was taken sick on the 15th, aspirated on the 25th of the same month and two quarts of serum drawn off. On April 15th three pints of pns were removed by aspirator, and on May 7th a drainage tube was put in. This was in 1885, and it has been discharging ever since. I first saw him on the 2nd of September 1885, and again several months afterwards, but he refused to submit to resection of the ribs and continues to put up with the unclosed cavity.

It is imposible to over-estimate the importance of strict antisepsis in the performance of aspiration of the serous effusion from pleurisy. The instrument should be not only clean and aseptic, but the skin where the puncture is made should be well washed with sublimate solution.

In adults, all will agree that free drainage should be secured until the cavity is closed, the only question being the manner of doing this. Without reviewing the relative merits of free incision, resection of one or more ribs, or a double opening, I would only say that in practice I have generally made a single opening with a large trocar, and have introduced a drainage tube through the canula, which is then withdrawn, leaving the rubber tube in the wound and securing it there by a thread passed transversely through it, and kept in close contact with the skin by strips of adhesive plaster. I have not seen a case where I thought a double opening was necessary, or would have given a better result, and unless a clear indication for making it be present, I think it better and safer to make only one. The admission of air into the cavity may have disadvantages, although I am not convinced that it has On the other hand, its presence there prevents the too rapid expansion of the lung, and the injury that might result from the sudden rupture of adhesions.

Should the suppurating cavity be washed out? This is a question of some importance, and the answer must depend upon the circumstances in individual cases. There is undoubtedly some risk in washing out, for cases of sudden death, the result of injecting fluid into the cavity, have been reported. The fatal result does not depend upon the kind of fluid used, for the use of pure water has caused death. The explanation of this is not easy, but it may be that the untoward event is due to inhibition of the heart through reflex action, caused by the presence of the suddenly injected fluid. When the pus is healthy washing out is unnecessary, and if the patient's condition be good, as indicated by the temperature, pulse, etc., even though the pus be not healthy, I believe it advisable not to irrigate. If, however, free drainage be maintained without amelioration of symptoms, and the pus be offensive, I believe the use of a disinfectant wash necessary; and if it be of the temperature of the body and injected very slowly the risk will be very slight. The quantity injected will vary with the size of the cavity.

Aspiration will sometimes cure empyema in children, but in consideration of its frequent failure and the risk that such delay implies, it is doubtful if it would not be better practice in most cases to perform paracentesis instead, especially as anæsthesia is required for either. I believe it would. Dr. Wilks has reported five deaths in children, occurring in one of the London hospitals during a single year, from bursting of pus into the lung, and he advises tapping and free drainage if one aspiration fail.

## CLINIC, BY JOSEPH E. WINTERS, M.D.*

Professor of Diseases of Children at the Medical Department of the University of New York and Post Graduate School, etc.

GENTLEMEN,—I present to you first this morning a child twelve years old with swelling on the left side of the neck. She is one of five children;

* Delivered at the Medical Department of University of New York on Nov. 1st, 1888.

none of the rest of her family were so affected. It was first noticed by the mother five weeks ago, and since that time it has already increased in size; you can all see it distinctly. The upper border of the tumor is on a level with the inferior border of the thyroid cartilage, and it extends below the clavicle; covering it completely, so that the swelling extends one to one and a half inches below the clavicle; it is superficial and extends considerably to the right of the median line, is very firm and even hard, almost as hard as bone. It is not painful as can be seen from observing the expression of the girl's face. It is difficult to tell the depth, but it seems to have a deep attachment, is absolutely immovable and as fixed as the clavicle itself. I first saw the case one week ago last Tuesday, and since that time the tumor has already increased in all directions and is fully one-third larger than when I first saw it. It seemed softer last Tuesday, but this was probably due to the action of a 5 per cent. solution of the oleate of mercury, applied twice a day, which caused some cellular inflammation and œdema, and when discontinued it became hard again.

The question is, does it extend into the neck behind the clavicle. From the fact that it has produced no pressure symptoms in that direction. I should say not. The appetite is good, bowels regular, and child sleeps well. You notice that the mother before you has a rachitic deformity of the spine, but this has nothing to do with the case of the child. The question is as to the diagnosis.

It is not goitre, because it is not in the median line and is much harder than ordinary goitre; it is not a tumor connected with the lymphatic glands, because others are not affected; not an acute adenitis, because there would have been symptoms of suppuration by this time; not a cellulitis, because there is no pus, and no elevation of temperature. In my opinion it is a neoplastic growth, probably sarcoma or lympho-sarcoma, because of its coming on rapidly, causing no pain and being deeply seated. Such growths are not so infrequent as is generally supposed, and their tendency is to spread downwards into the chest beneath the clavicle, until, by their constitutional or pressure effects they cause death. Now the question is, what would you do with it? The only thing to do is to have it removed by a surgeon, after having watched the case so as to be sure of your diagnosis. I remember having seen numerous cases at Demilt Dispensary during the last four or five years involving the thoracic cavity and aorta, and ending fatally.

CASE II.—Here is a little girl well until yesterday, then she suffered from restlessness; no vomiting, temperature 105°, pulse 103. On observing the child the first point that attracts your attention is the cough; secondly, the rapid panting, breathing 55 per minute; yesterday afternoon the respirations were 65. The cough is short, quick, and loose, giving evidence of little mucus in the tubes. The normal ratio of the pulse to the respiration is three and a-half to one, and the perversion of this ratio is enough to suggest pneumonic inflammation, and then you begin your physical examination.

*Inspection* shows panting respiration, and exaggerated breathing on left side.

*Palpation* is negative.

*Percussion* gives slight dullness in infra-scapular region on right side.

*Auscultation.*—Small crackling râles with inspiration and expiration, are heard over the posterior portion of right lung. No vesicular murmur is heard; on the left side you hear exaggerated breathing. In a child of this age, the respiration is almost entirely diaphragmatic, and when the lung is inflamed there is scarcely any movement of the thoracic walls; but by placing my hand over the pit of the stomach and pressing upwards and backwards, I interfere with the action of the diaphragm, therefore thoracic breathing takes place. Now, in addition to the numerous friction râles, distinct bronchial breathing is heard, therefore always, in examining a child, first examine while breathing naturally, then place the hand over the diaphragm and all the sounds are increased. This is a point which you should always bear in mind, and if this method is adopted, you will never mistake pneumonia for pleurisy. Yesterday, on examining this child, no sound except feeble respiration could be obtained; but on pressing over the diaphragm, showers and showers of friction and crepitant râles could be obtained, and bronchial breathing. In front, no physical signs can be obtained. The diagnosis is lobar pneumonia, because it involves a large extent of lung and on account of the suddenness of its onset. Now, unless you realize that you

can have such an extensive inflammation of the lungs, with few symptoms, you will often overlook pneumonia. This is one of the peculiarities of lobar pneumonia of children, viz., that the symptoms are not at all in accordance with the extent of the lung involved. In children, larger portions of the lungs are affected than in adults; double pneumonia is not uncommon, and apical pneumonia is very frequent up to the fourth year, is not nearly so serious as the apical pneumonia of adults, and has none of the symptoms of nervous prostration that occur in adults. The pneumonic inflammation extends rapidly in children, and in a few hours a diagnosis can be made. This child was taken sick yesterday morning, and in the afternoon the diagnosis was made. This rapidity was well illustrated in a child which I once saw at nine o'clock in the morning, who was then in convulsions. I examined the chest carefully, but nothing abnormal was discovered. I was again called to see the case at twelve o'clock, and on examining the chest, all the signs of pneumonia were present. So that all the physical signs can be obtained in a few hours after invasion. Pneumonic inflammation is more severe, and thus the formation of abscess and gangrene is much more common in children than in adults. The reason why abscess does not take place in every case of pneumonia, is, that pneumonia affects the pulmonary vessels, and when the bronchial vessels are involved, abscess results.

Resolution takes place much earlier in children than adults, often on the fourth or fifth day, and the child may be well in a week.

*Treatment.*—It is so simple, that almost nothing is required. First protect the surface by an oil-silk and flannel jacket; it is better than a poultice, because of want of care on the part of the attendants. If you have a trained nurse, you may use poultices; a cold poultice does more harm than good. The child should have a warm, moist temperature, 70° to 75°; if you do these two things, as a rule you will not require any medicine. If the child has a respiration over fifty, it is not so serious a symptom as ordinarily considered; it may be due to nervous phenomena; as I have seen a case where it was over ninety-six for four days, and a good recovery ensued. Another common cause of rapid respiration is constipation, and when the bowels are moved by one-tenth grain of calomel, given every half hour, the respirations often fall to thirty-five.

Liquid diet should be given, and no other treatment is required in this case. Yesterday afternoon, when the temperature was 105°, potassium citrate and spts. etheris nitrosi were given. If in a few days from now you hear nothing but large mucous râles, have evidences of heart failure, as cyanosis, and weak pulse, and of respiratory failure as the air does not penetrate the lungs beyond the large bronchi; and on pressing over the pit of the stomach all the physical signs return, you will be able to distinguish between resolution and incipient pulmonary œdema. Now is the time for treatment, and stimulants must be given, not only to the heart, but also to the respiration. This is best done by the application of a weak mustard paste for twenty minutes over the chest, followed by sweet oil; such applications can often be made three times in twenty-four hours.

Temperature this morning is 100°, pulse 138; prognosis in all cases is good; child may have alarming symptoms, and yet recover. There has never been a death from lobar pneumonia of a child, seen at this clinic

## Correspondence.

### OUR NEW YORK LETTER.

*From our own Correspondent*

NEW YORK, Dec. 17th.

The *Medical Record* published a very interesting paragraph by McKee from the Cleveland *Med. Gazette*, on "Do contracted pelves have an influence on the sex of the child." This is a question of considerable interest, and has been given some attention. Olshausen, of Berlin, in a series of five hundred and twenty-one deliveries of women having contracted pelves, found two hundred and eleven girls and three hundred and ten boys, *i.e.*, one hundred to one hundred and forty-seven. Allfeld arrived at much the same result, viz: one hundred and thirty-three boys to one hundred girls. Dohon (Zeitschrift für Gebürtshuffe Gynoekologie, xiv., 1 p. 80) has made the last thorough experiments on the subject in the obstetrical clinic of Konigsberg. He collected statistics of four hundred and fifty deliveries in women who had narrow pelves, two hundred and twenty-four were girls, and two hun-

dred and twenty-six were boys—one hundred to one hundred and six-tenths. The other deliveries in this clinic were in the proportion of one hundred to one hundred and one and six-tenths. Dohon is of the opinion that a narrow pelvis has no influence on the sex of a child.

At the State Emigration Hospital, N.Y., there are treated each year about one hundred cases of erysipelas, the majority of which are facial erysipelas. These cases are treated in a building set apart from the general hospital, fitted up in rooms which contain beds, from five to ten in a room. The case is put to bed and is kept there until all signs of the disease has disappeared. The treatment that is usually thought to be the best is to cover the surface with vaseline, then a thick layer of cotton batting is placed over the part, that is covered with vaseline, then a good snug bandage is applied. If the face is the part that is involved, holes for the eyes, nose and mouth are cut in the cotton, making a complete mask. If the limb is the site of the inflammation, the bandage should be applied with great care and the cotton batting should be thick and even, so that pressure will be even and uniform. This dressing is renewed once in twenty-four hours, and the parts well covered with vaseline again. The bowels are kept free, but not purged. The temperature can be controlled by antipyrine or antiefbrine. The hair is kept short in cases where the scalp is involved, and if pus forms under the scalp, it is let out; where the eyes are closed from œdema of the lids, the lids are separated with care and cleansed once a day, and if there is much secretion this cleansing process should be repeated oftener. It is done without removing the whole mask, by having the flap of the mask over the upper eyelid so that it can be turned back, without disturbing the rest of the mask. Stimulation is given where the patient is weak. Good diet is administered in spite of the temperature. It is found best not to put the case on low diet. Purgation or depletion are also contra-indicated. Under this treatment all the cases get well, and in the number treated in the last five years at this hospital there have been only three deaths. One of these was within the last year, and was a case of facial erysipelas when she came in, but it started in the throat. The woman was about to be confined; the inflammation gradually extended over the body and when it had covered the abdomen, she gave birth to a boy. Every precaution was taken to prevent the vulva and vagina from becoming involved, but it was useless.

This was one of the worst cases that has ever been seen here, death taking place thirteen days after her child was born. The infant had erysipelas and died fourteen days after birth. Other remedies have been tried, but none seem so satisfactory as the one I have just described. The simplest treatment seems to be the most satisfactory. Trousseau said, "When a patient suffering from erysipelas is placed under my care, my rule is to abstain from every kind of treatment" and he adds that such had been his plan for twenty-eight years, and he does not remember losing more than three persons from erysipelas in that time. He insisted on the importance of keeping patients in bed, both in the acute stage and during convalescence, to prevent their catching cold and suffering relapse. The treatment of phlegmonous erysipelas consists in opening up the abscesses, washing them out with solution of bichloride, 1-1000, being sure to break down all the dead connective tissue. The cavity is thoroughly cleaned out and drainage tubes are put in, so that the wound can be drained completely. When there is danger of a tendon sloughing, it is laid bare and kept well covered with bicloride gauze. A very large number of phlegmonous erysipelas cases that come into the Emigrant Hospital during the winter. They are classed as cellulitis and counted as such. Most of these cases need a great deal of stimulation and good nutritious diet. When they are operated upon early they get well without any lost tendon. If they come into the hospital after pus has formed around the tendon there is in most cases a loss of tendon. Yours,

AJAX.

## Selected Articles.

### THE INFANT FOOD PROBLEM.

To the general practitioner everywhere, there comes constantly the question: What means shall be employed to prevent the terrible mortality among infants deprived of their natural food, the mother's breast-milk. As it is in very many instances impossible to place the child outside the walls of a large city, this want of proper hygienic surroundings acts as one great factor in the production of disease. But perhaps the most active

cause of disease is the exhaustion of the vital powers from the want of those articles, which being properly and readily assimilated, aid to maintain the body in its highest and healthiest condition. We all know that, other things being equal, that child which has been able to keep its system in the best state, its blood rich and pure, its muscles plump and firm, is sure to pass through an epidemic of children's affections either entirely unscathed or suffering only from a slight attack, readily throwing off the disease and never being troubled with the sequelæ.

Defective nutrition, then, is the predominant factor in the causation of the fearful mortality everywhere observed among children. We need only point to the statistics of children's hospitals, foundling asylums, and similar institutions to show the truth of this proposition.

To us, as physicians and sanitarians, as citizens earnest for the welfare of this great republic, this comes with powerful import. An additional fact also appeals to us, when we learn that the vast majority of these are native-born offspring, while those who survive are largely the children of foreigners. This is shown by the valuable statistics of such investigators as W. Nathan Allen. Though we are compelled to admit that other causes, and one a very potent factor, produce the great disproportion between offspring of natives and foreigners, yet it must be admitted that the truth of our original proposition is still evident, that defective vitality causes a vast majority of deaths among infants, and even in children of larger growth. The latter fact is constantly shown by the great mortality which prevails, when by reason of short crops or other causes, the people are unable to procure the food needed to maintain their systems at par, and thus resist the inroads of disease.

It goes without saying that the infant should be raised on its mother's milk whenever possible. When, for any cause, this fails, then comes the question: What shall be the substitute? Abroad, the milk of asses and goats is in quite common use. Cows' milk being that most easily obtained, is most largely employed in this country. This being the fact, we next come to the consideration as to how the two kinds of milk differ and what is needed in order to cause that of the cow most nearly to appaoach that of the human being?

Cows' milk contains more proteid matter, more fat, more mineral matter and less sugar, and as a rule in health, human milk is alkaline, while cows' milk is often slightly acid. One special difficulty with cows' milk is that its acidity is more or less likely to form an insoluble mass by contact with the gastric juice, while the casein of human milk is in part a peptone and forms a very delicate coagulum when in contact with the gastric juice.

The object is always to produce a food for infants closely resembling in its composition mothers' milk, and the nearer this is reached in all its details, the more surely will such food prove wholesome and valuable to the infant.

Our idea of a standard infant food, when produced, would be as follows: Be sure to obtain the milk of a healthy cow. Just here we may premise that we do not believe in the common fallacy "one cow's milk." The mixture of the milk of several healthy cows is more likely to give an article of real value. Undoubtedly, many in this audience can substantiate the claim that it is most usually the pet cow, from which the milk is obtained which is put by for the sick baby; that receives all the banging, hurrying, and pelting, and as we all know, is thus likely to yield a milk which may actually be poisonous in its nature. The best combination would be pure milk diluted with sufficient pure water to reduce the relative proportion of albuminoids and mineral constituents most nearly to that of human milk, then partially peptonize or digest it, and finally, add a soluble carbo-hydrate with sufficient alkali to produce as close a resemblance to breast-milk as may be. We must not forget that peptonizing milk does not relieve us of the need of being sure that the milk is at the outset pure and fresh.

The milk supply of large cities has now become one of the great problems of the day. Churned in the cars to the city, then more thoroughly churned in the wagons over wretchedly paved streets, distributed in many cases from doubtful cans by persons of much more doubtful appearance as to their own cleanliness, the flavor often aided by the puffing of a cigar or filthy pipe on the part of the distributor, the article is received in many cases in a receptacle of equal doubt as to cleanliness, it is placed, perhaps, in a food chest, or so-called refrigerator, exposed to the atmospheric contact of other articles of food; is it to be wondered that the milk becomes of a very doubtful form as to its propriety as an infant aliment?

To a certain extent, these objections are met by the new plan of delivering what is called "whole milk." The milk, immediately after being drawn from the cow, is very carefully placed in glass jars. These being quite full are hermetically sealed so that there can be no opportunity of churning or adulteration or the absorption of odors or disease germs. For children who have passed the age of infancy, I have long been in the habit of urging the employment, particularly during hot weather, of what is called "evaporated milk." Its claims were that it was milk from healthy cows, well-fed, and being of a density greater than cream, churning or souring were less likely to occur during its transition to the city. Again, it was very much less ready to absorb or appropriate the odors, etc., to which it might be subjected. I have found this more easily borne by the child, and repeatedly I

have been compelled to substitute it for the "condensed milk," where a certain proportion of sugar is added in order to preserve the article.

For these reasons, Professor Vaughan urges the use of dried milk solids, that is, they can be transported without injury from any distance, and if properly prepared may be kept without putrefaction occurring. Now, if such pure milk from perfectly healthy cows was partially predigested by the process of peptonization with fresh pancreatine, the temperature then sufficiently raised to destroy the remaining ferment, reduced to a powder by evaporation, and to this, dextrine added, thus supplying the carbo-hydrate, we would then be as near the production of a proper food for infants as might be possible in the absence of the breast-milk.

By recent researches, we have been taught that dextrine is the best form of carbo-hydrate, as it is non-fermentable and does not irritate the stomach of the infant, is easily assimilated, and, unlike cane sugar or maltose, is not likely to take on acid fermentation. Roasted wheat flour has long been employed and recommended as an article of food for infants, and particularly where diarrhœa is present. The reason of this is because this process converts the starch of the flour into dextrine.

The malt sugar or "Liebig Foods" are, no doubt, often valuable, particularly in infantile constipation, for their laxative effects; but are extremely liable to continue a diarrhœa or increase it. When these are used for their laxative effect, it is safer to use them alone rather than with milk, lest their fermentative tendency be aggravated by the presence of too great a quantity of albuminoid matter.

I am incited to this remark by the remembrance that the Liebig Foods do not by themselves meet the requirements demanded for infantile nutrition, unless with the addition of cows' milk. By an examination of the analyses of such mixtures, we find that they add no essential to cows' milk; nor do these foods act chemically upon the casein, nor physically, by reason of their solubility; and, as I have before remarked, they may give rise to disorders of digestion, in consequence of the readiness with which they take on fermentation.

Farinaceous foods are, of course, out of the question, because of the absence of ptyalin in the secretion of the salivary glands in the earlier years of infancy. The addition of starchy matters to cows' milk, for the purpose of rendering the coagulum less dense and more easily broken up by the stomach, as has been recommended by some authorities, is wrong in principle; it really adds an indigestible element, which cannot fail to act as a foreign body, sure to produce fermentative acidity, diarrhœa and the usual train of evils.

The milk foods when diluted with water in accordance with directions, should correspond in nutritive value with human milk. Now that this correspondence should be more nearly perfect, they should also be partially predigested or peptonized, in order that the casein may be rendered more acceptable. It is also necessary that sugar in some form should be added.

In peptonizing milk, it is of the greatest importance that the pancreate extract which is employed should be pure and fresh. The odor of some digestive ferments as furnished by the stores, is such as to give rise to suspicion that they are already assuming the putrefactive tendency. In fact, it is a very difficult matter to preserve them, as it is well-known that the products of the pancreas are much more readily decomposed than any known animal substance. Hence the greatest care will be necessary so there shall not be the slightest possibility of the presence of putrefactive germs in any of these articles that may be employed to aid in the preparation of the diet of infants. The peptonizing of milk, although, apparently, a very simple matter as practised in the laboratory, yet is scarcely feasible in the household.

Another point is of great importance. Malt sugar is eminently prone to absorb moisture and hence it should not be combined with dried milk and then put in bottles or other form of package for family use, because as these packages are only partially used at one time, the balance is extremely liable to absorb moisture, resulting in fermentation; and this is more especially the case in hot weather or when kept in a hot room.

We cannot too strongly urge upon all who are compelled to prepare food for infants, the great, imperative necessity of using only water that has been boiled. To the medical man, the reason is plain, yet it would not be amiss for him to explain in each instance why this should be done. Just here it is equally important to see that the water is not cooled by the addition of ice, as we may thus return at once to the water the very organisms which the boiling was intended to expel. I am impelled to this remark by the remembrance of an inspection just made for the State Board of Health for Pennsylvania. The subject of complaint was the ponds from which the ice was obtained to supply the demands of a large town. These ponds were filled with water from a stream, really nothing but a drain for a full graveyard, one or more slaughter-houses, a large number of cesspools, which were in constant use, and a large area of swamp land.

In diluting any form of infant food, we should give positive definite quantities. Undoubtedly all of us have encountered many cases where the child was really starving, while apparently receiving a large quantity of fluid. The fact is that the dilution had been carried too far.

It is unnecessary for me to occupy your time with further points as to times for feeding or of necessity for using bottles, etc., etc.

Before closing, I may remark, that in my investigation of foods for the preparation of a paper which may be read elsewhere, I received from my friend, Chief Medical Purveyor Baxter, of the United States Army, a tabulated analysis of some fifteen forms of foods. Of these, only four contained more than ten per cent of nutritive material, thus showing that even here we are likely to be deceived, and to be employing an article as useless for its proposed purpose as the too largely diluted food of the infant already mentioned.

In conclusion, permit me to say that it has long been my custom not only in my practice, but also in my teachings, to urge the giving of less medicine, using it only when imperatively demanded, and to insist upon the value of proper hygiene and proper nourishment, believing that these alone in many cases will at once place the child on the road to health, and, if persevered in, will, as a rule maintain it there.—William B. Atkinson, M.D., in *Sanitarian*.

## SUDDEN HEART-FAILURE IN DIPHTHERIA.

Dr. J. Lewis Smith read at the first meeting of the Academy of Medicine in Nov., an admirable paper on "Sudden Heart-Failure in Diphtheria." Towards the close of his paper he examined by the light of clinical experience the prevailing theory that diptheritic paralysis results from anatomical changes, peripheral or central, or both, in the nervous system, and to inquire whether it was adequate to explain the paralysis as it ordinarily occurs—whether cardiac paralysis or the other forms. The following he gave as some of the objections to it:

1. Cases occur in which carefully conducted microscopic examinations reveal an apparently normal state of the nerves supplying the paralyzed part and of that part of the cerebro-spinal axis from which the nerves arise.

2. Palatal paralysis sometimes occurs as early as the second or third day of diphtheria, and loss of the tendon reflexes as early as the first day; and it seems improbable that a peripheral neuritis or anatomical changes in the cerebro-spinal axis such as to cause paralysis should occur at so early a date.

3. In its commencement diphtheritic paralysis often exhibits what Trousseau deisgnates as mutability; suddenly shifting from one group of muscles to another. It would seem impossible that there should be a sudden recovery from the paralysis, and then perhaps on the following day a recurrence of it, if it resulted from degenerative nerve changes, either central or peripheric. A persistent cause should produce a continuous effect.

4. Microscopists who have discovered degenerative changes in the peripheral nerves supplying paralyzed muscles, state that while some of the nerve fibres have undergone complete or nearly complete degeneration, others have been affected with only partial degeneration, and still others seem to be intact; a condition which would hardly account for the complete paralysis often met with, as, for instance, in the velum plati.

5. Diphtheritic paralysis, both motor and sensory, is frequently limited to the parts supplied by a single branch of a nerve, while all the other branches preserve their normal function. This fact, while not antagonistic to the theory that peripheral nerve lesions cause the paralysis, affords a strong, if not conclusive, argument against the theory that central nerve lesions are the cause.

In the discussion on the paper Dr. A. L. Loomis said that he had been accustomed to regard diphtheritic paralysis and heart-failure as not always dependent on the same cause. In the early stages of diphtheria it had seemed to him that heart-failure was due to the direct action of the poison, whatever that might be, as was no doubt the case in other diseases, especially typhus fever, in which sudden death not infrequently occurred from this cause. When the accident occurred in the advanced stages of diphtheria he had considered that it was caused by peripheral neuritis, although he did not deny that there was possibly not a sufficient basis for such an assumption. Dr. Beverley Robinson said that he was still of the opinion that cardiac failure in acute cases, in the majority of instances, was connected with the ante-mortem formation of clots in the heart, especially the right heart. When a hospital interne in Paris, he had made a large number of autopsies in such cases, and he had never found any lesions of the peripheric nerves. In his experience death did not always occur rapidly; the symptoms of heart-failure often continuing for a considerable time before the fatal termination. After death there would almost invariably be found fibrinous clots, and from their character he believed that they were formed ante-mortem, and were to a greater or less extent the cause of death.

Dr. A. Caillé spoke of the importance of keeping all patients suffering from diphtheria, strictly confined to bed, and of giving them sufficient stimulus, for the purpose of counteracting, as far as possible, the tendency to heart-failure. He also mentioned one case in which fatal heart-failure was apparently brought about by an error in diet.

Dr. Seibert expressed the opinion that heart-failure occurring in the early stages of diphtheria was due to the direct action of the poison of the disease upon the central nevous system, and that when it developed later on, it was due to pathological changes in the cardiac muscles. In all the

cases that he had known of, the attack was brought on by the attempt of the patient to make some exertion.

Dr. A. Jacobi said that it was probable that some of the sudden deaths in diphtheria were due to syncope, the result of anæmia of the brain brought about by exertion, as was sometimes the case in pnemonia. There was one peculiar condition that might be mistaken for heart-failure in the later stages of diphtheria, viz.: paralysis of the muscles of respiration. It usually followed the other forms of paralysis, and was characterized by shallow respiration, with a good deal of resulting dyspnœa and rapidity of the heart's action. In such cases electricity in short sittings, and strychnia by hypodermic injection, are the most efficient means of treatment. Being aware of the tendency to fatal heart-failure in diphtheria, it was the duty of the physician in every case of the disease to do all in his power to guard against such an accident. The indications are to save the strength of the patient by feeding and tonics, and especially to fortify the heart by means of alcohol and such agents as digitalis, sparteine and strophanthus. In every case of diphtheria we had to deal with sepsis, and alcohol was therefore of the highest possible value. He believed that no patient with this disease could be injured by alcohol, and that even the most courageous physicians often erred in not giving enough of it. If the choice were offered him between alcohol and all other remedies in diphtheria, Dr. Jacobi said he would unhesitatingly select the former as affording the best chance to the patient. In brief, then, the indications for the prevention of heart-failure are to save the strength, combat sepsis, and sustain the heart.

In closing the discussion Dr. Smith said that, since the stomach and lungs, as well as the heart, were implicated, the inference was that the cause of the trouble was some affection of the nerve supplying the three organs, the pneumogastric. It was a fact that a certain proportion of those attacked with heart-failure recovered, and that in some of those who died there was for a time an amelioration of the symptoms; and it seemed to him that this would not be possible if the trouble were due to heart-clot, which would undoubtedly be a permanent condition, unaffected by any treatment that might be adopted. It was also a fact that paralysis of some form almost invariably preceded the heart-failure, and this would seem to indicate that the latter was due to the same cause as the paralysis. —*Correspondence Jour. Am. Med. Assoc.*

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THE addition of a small amount of liq. ammon. to a mixture of the fluid extract of cascara sagrada, renders the color a bright ruby-red.

## THE TREATMENT OF PERITONITIS.

The question how to treat peritonitis is one of the greatest importance, and upon the decision eventually reached will, in the future, depend the lives of many patients. Should the leaders of our profession decide that the administration of saline purges is the best treatment, and this be for a few years taught in the schools, the ordinary practitioner will soon acquiesce. If such a consummation is to be deplored, now is the time for us, who are of the contrary way of thinking, to protest.

To me it seems clear that before any conclusion can be reached, it must first be acknowledged that peritonitis, as ordinarily seen, diagnosticated, and treated by physicians, is so different from the lesion or disease which has been successfully dealt with by surgeons by the administration of saline purges, that it must be recognized that, from the standpoint of therapeutics, the two questions are as far apart as though they were two widely differing diseases.

As a therapeutic measure, no one disputes the wisdom, under some circumstances, of making an attempt to abort an inflammation; and yet it is equally well known that such an attempt, when made after the inflammation has progressed so far that to abort it has become impossible, must not only fail, but, equally certain, will be productive of positive harm. It is a common rule of treatment, and one that holds good in the great majority of instances, that an irritated, sore, or inflamed part is to be put as nearly as possible at rest, and that whatever increases the pain suffered is likely to be injurious. Why shall we make an exception to this rule in all cases of peritonitis by giving salines, which throw the bowels into a state of great activity, and increase the pain, at the same time denying the patient opium, which equally certainly relieves?

I have been, and am an advocate of the use of opium in all cases of peritonitis as seen by physicians, but at the same time I have never denied my patients the use of laxative medicine, and it is, I am sure, by the judicious administration, according to the special needs of each particular case, of the two seemingly diametrically opposed drugs that the best results will be attained. The reason, probably, that the use of opium in the disease is being decried is that it has been abused. It should not be given to the point of narcosis, nor should it be expected that in cases of severe peritonitis the pain will be abolished. Measurable relief only should be looked for, with alleviation of the terrible colicky pains so characteristic of the disease in its full development. I have never been a believer in the treatment by the use of anodynes exclusively, and think it absurd to talk, as I have heard, of purging the patient by the use of opium and bella-

donna. If we had six months in which to work, and could first establish the opium habit in the patient, we might, perhaps, encourage diarrhœa, or at least not interfere with it by the administration of opium. In a disease, however, which lasts usually but a few weeks at the very outside, such an expectation can end but in disappointment.

The treatment that will give the best results, according to my view, is the following: in all cases in which no physical obstruction can be diagnosticated, for which operation must be at once recommended, and this should include doubtful cases in which operation may subsequently become necessary, there should be prescribed liquid diet, small quantities every two hours, and every two hours a quarter of a grain of opium, and one-twelfth of a grain of extract of belladonna. To this may be added, if it should seem advisable on account of pain, the administration twice, or at the outside, four times in twenty-four hours, a one grain powdered opium suppository. At the same time injections of warm water, with or without soap, should be given once to three or four times daily. If flatus is passed, the case continues to be a very hopeful one. This course should be rigidly adhered to for from twenty-four hours to five days, or possibly longer, when the time will have arrived at which it becomes necessary to consider the propriety of using some sort of aperient.

Purgatives are given in peritonitis for two distinct purposes: first, to increase the peristalsis, and thus overcome obstruction; and, second, to induce large watery movements, for the purpose of directly depleting the abdominal, and especially the intestinal, bloodvessels. After operations, inflammation in greater or less degree is so common, and we are so well aware that it is liable to occur, as to be always prepared to meet it. This being the case, it may be met in its very incipiency, and if inflammation can be aborted, it is under such circumstances. The explanation of the success, therefore, of surgeons in treating peritonitis with large doses of saline purgatives would seem an easy one, for they deal with a stage of the disease which never comes under the management of physicians, as people in the early stages of the disease do not seek advice, and, besides, if they did, the differential diagnosis between idiopathic peritonitis in its earliest stage and enteritis, or mere intestinal irritation would be an impossible one. No one, I think, should deny surgeons the credit their courage deserves for having instituted this revolutionary method of treatment, for, measured by our old standards, it is revolutionary; but, at the same time, we must not err upon the other side, and with undue haste conclude that the method is applicable to all cases. I have long been of the opinion that the old surgical practice of shutting up the bowels for a week, with opium, after an operation for hæmorrhoids, was a bad method.

Having, then, quieted our patient somewhat during the first few days of attendance, with injections and liquid food, and belladonna and opium, and at the same time been very careful not to induce narcosis, or in the least to depress the respiratory forces, for, if we do, the remedy will be worse than the original disease; we must, as already said, consider the propriety of getting the bowels moved. The decision in regard to the precise moment at which this attempt is to be made is, in my opinion, one of the most delicate questions that can arise in therapeutics, and gives to each of us, when we meet it, an opportunity to show a real genius for the treatment of disease. The medicine, however, which shall be given is very easy to decide upon—here there is no inflammation in its early stage, and therefore there can be no question of aborting it. Salines could only act upon the bowels like other drugs, relieving tension, if you like, by abstracting water directly from the intestinal bloodvessels; but, so far as the mere moving of the bowels is concerned, they are by no means so effective, or, as the laity call it, "searching," in their action as some of the vegetable purgatives. Anyone who has been called upon to treat cases of fæcal accumulation (a paper upon this subject was published some years ago by the author, in the *Transactions of the College of Physicians of Philadelphia*), will have learned how useless and ineffective are salines if the bowels are very sluggish, while small and repeated doses of vegetable purgatives are perfectly satisfactory, and certain in their effects. In such cases salines, and even castor oil, will induce large watery stools, but no fæcal matter is brought away, and it seems as though the fluid material had come from below the accumulated fæces, or came by, and the patient is no better off than before, though probably he will have suffered much pain. No better combination can be given than a pill consisting of a twelfth of a grain of extract of belladonna, a quarter of a grain of extract of nux vomica, a quarter or an eighth of powdered aloes, and a half or one grain of rhubarb. This should be given at first once or twice in twenty-four hours, and, if violent pain be set up—which, however, seldom happens—it should be stopped, and the opium and belladonna every two hours used again for a day or two, when the attempt with the aperient may again be made. After a day or two the pill may often be given every four hours, and I have often seen the obstruction give way under this treatment, and the patient entirely recover.

It would be most unfortunate, it seems to me, for the science of medicine, and still more so for those who, in the future, are to suffer from peritonitis, if the treatment of the disease with sedatives should be entirely abandoned, as has been recently recommended. Let us look at the question reasonably, and without prejudice, and in the

future assign to one class of patients operation by a competent surgeon, and saline purgatives afterward, if those skilled from a study of the subject in that paticular direction judge that to be the proper course; and to the other, a reasonable use of anodynes and injections, with moderate doses of vegetable laxatives when the time comes for their administration. Because, in the past, the sedative method of treatment has been abused, and patients have been hurried out of the world by the unwise management of incompetent physicians, who have narcotized them, is no reason why we should cast aside what is good in the method, any more than it would be wise for us now to assume that, because the administration of saline purges is advisable in the surgical treatment of some cases, it is, therefore, to be looked upon as a panacea in the disease, and the treatment to be recommended in all cases.

For my own part, I am a firm believer that the disease may arise idiopathically, and, when I say this, I mean from an attack of enteritis, or violent indigestion, or from chilling of the body, just as I believe pleurisy may arise, and, in such cases, it is reasonable to suppose that the inflammation very soon becomes more or less generalized, though, of course, it must have had its origin at some point. Such cases as these, if it be conceded that they ever arise, are not amenable to surgical treatment, for there is no point of special obstruction, and operation could not effect any good, unless by merely cleansing.

In conclusion, I cannot perhaps, better emphasize the correctness of the statement that the treatment by sedatives should not be abandoned in all cases of peritonitis, than by calling attention to the fact that in many cases in the past, and the same thing is certain to occur again in the future, post-mortem examination has demonstrated that the disease was so extensive, or of such a nature as to be necessarily incurable. Under such circumstances, I think no one will dispute that the province of the physician is to do what he can to soothe pain, and to make the last days and hours of the patient as endurable as circumstances permit, and no other one drug will conduce so much toward this end as opium.—Dr. Meigs, in *Med. News.*

## HINTS FOR THE TREATMENT OF SLEEPLESSNESS.

The following *résumé* of an article by Dr. Eccles, on the treatment of sleeplessness, is published in the current number of *Gaillard's Med. Jour.*:

1. *Hot bath*, taken just before settling quietly for the night, is most valuable in producing a dreamless sleep, though this does not usually last more than four hours, and is sometimes followed by a period of great wakefulness, relieved only by a short morning doze. Method of giving the bath most important. Bath-room should be at temperature of 65° F., and this to be raised during bath to 70° F. Patient to be at once stripped, and then the stooped head and face rapidly douched with water at 100° F., to dilate brain vessels; next whole body, except head and face, to be immersed in bath at 98° F., and this temperature rapidly raised to 105°—110° F. In about eight to fifteen minutes, when the at first accelerated pulse has fallen to a slow, full, steady, and compressible beat, the patient must be slowly raised, closely wrapped in warm blankets (a loose pyjama suit is a good contrivance), and conducted to the bedroom without any haste and at as small personal effort as possible. On reaching the bedroom he will be dry. Let him then at once don his night-clothes and immediately lie down with the head well raised, a hot bottle to the feet, and the body well covered with bedclothes. The bath probably acts by reducing the supply of blood to the whole of the brain, thus decreasing the functional activity equally throughout, and so placing it in the most favorable condition for complete functional rest, to the exclusion of the partial activity of certain centres which would induce dreaming. It has proved most useful for the relief of disturbed sleep in persons who have either ceased to be influenced by ordinary hypnotics, or in whose cases their use is contra-indicated. The bath itself, however, is contra-indicated in extreme anæmia, emaciation, aortic valvular disease, and atheroma.

2. *Massage at bedtime.*—Valuable in organic cardiac mischief, and in the very large number of cases in which functional weakness of the heart and circulation generally is a feature of the nervous debilitated constitution. Two cases of aortic regurgitation mentioned, in which permanent benefit resulted, and one of aortic aneurism where the improvement was only temporary. On conclusion of the kneading the patient must at once compose himself to sleep. Its performance must be rapid, commencing with the abdomen and passing to the back, arms, and legs, with as little exposure of the parts to the outer air as possible, so that a layer of warm air may be maintained between the closely covered limbs and the bedclothes. The manipulations should be directed not so much to the evacuation of the lymphatic and venous vessels of the parts dealt with, as to the rapid and sufficient stimulation of the sensory nerves with the dilatation of the arteries over as large an area as possible. This kneading no doubt acts in the same way as tapping the abdominal parietes of a frog, which Goltz showed greatly dilated the abdominal vessels and distended them with blood, whilst it reduced the frequency of the pulse.

3. *Warm abdominal compress.*—Take two pieces

of twilled calico, half a yard wide and four yards long; roll these up lightly and raise them to a great heat in a closed earthenware vessel in a hot oven. Immerse as much of one as is necessary to cover the abdomen in water, and apply closely to the abdomen, then rapidly and firmly roll the rest of the bandage round the abdomen and loins; take the other hot bandage out of the earthen vessel and wrap it firmly round the first. In this way heat and moisture are kept applied to the abdominal walls, keeping up the free circulation of blood and soothing the nervous system. Schüller put a warm compress on the belly of a rabbit, and having removed the cranial walls, he noticed that an immediate and long-continued contraction of the meningeal vessels, with slowing of the cerebral movements resulted.

4. *The wet pack.*—This is most useful in those cases of erethetic neurasthenia resulting from prolonged overwork, mental distress, morphine habit, chloral drinking, and chronic bhang-poisoning. Any immediate beneficial results cannot be expected in these cases. The mechanical stimulus of massage temporarily excites rather than soothes the ill-balanced nervous system. Drugs are contra-indicated and moral suasion is useless. Should the patient's surface temperature be subnormal (*i.e.*, foot under 90° F. and palm less than 95° F.), moderately firm friction of the limbs and trunk should be employed to raise the superficial warmth. The bladder should be evacuated. The patient should have the pack as soon as the previously retarded circulation begins to be accelerated. The night-clothing should be well warmed and put on as quickly as possible. With all four the recumbent position must be maintained in a quiet, cool, well-ventilated room, the diet must be carefully modified, and daily massage performed.

## DISINFECTION AND DISINFECTANTS.

*Conclusions of the Committee on Disinfectants of the American Public Health Association.*

The most useful agents for the destruction of spore-containing infectious material are:

1. *Fire.* Complete destruction by burning.
2. *Steam under pressure.* 105° C. (221° Fahr.) for ten minutes.
3. *Boiling in water* for half an hour.
4. *Chloride of lime.* A 4 per cent. solution.
5. *Mercuric chloride.* A solution of 1:500.

For the destruction of infectious material which owes its infecting power to the presence of micro-organism not containing spores, the committee recommends:

1. *Fire.* Complete destruction by burning.
2. *Boiling in water for* ten minutes.
3. *Dry heat.* 110° C. (230° Fahr.) for two hours.
4. *Chloride of lime.* A 2 per cent. solution.
5. *Solution of chlorinated soda.* A 10 per cent. solution.
6. *Mercuric Chloride.* A solution of 1:2,000.
7. *Carbolic acid.* A 5 per cent. solution.
8. *Sulphate of copper.* A 5 per cent. solution.
9. *Chloride of zinc.* A 10 per cent. solution.
10. *Sulphur dioxide.* Exposure for twelve hours to an atmosphere containing at least 4 volumes per cent. of this gas in presence of moisture.

The committee would make the following recommendations with reference to the practical application of these agents for disinfecting purposes:

FOR EXCRETA.

(*a*) In a sick-room:

1. Chloride of lime in solution, 4 per cent.

In the absence of spores:

2. Carbolic acid in solution, 5 per cent.
3. Sulphate of copper in solution, 5 per cent.

(*b*) In privy vaults:

1. Mercuric chloride in solution, 1:500.
2. Carbolic acid in solution, 5 per cent.

(*c*) For the disinfection and deodorization of the surfaces of masses of organic material in privy vaults, etc.:

Chloride of lime in powder.

FOR CLOTHING, BEDDING, ETC.

(*a*) Soiled underclothing, bed-linen, etc.:

1. Destruction by fire, if of little value.
2. Boiling for at least half an hour.
3. Immersion in a solution of mercuric chloride of the strength of 1:2,000 for four hours.
4. Immersion in a 2 per cent. solution of carbolic acid for four hours.

(*b*) Outer garments of wool or silk, and similar articles, which would be injured by immersion in boiling water or in a disinfecting solution:

1. Exposure in a suitable apparatus to a current of steam for ten minutes.
2. Exposure to dry heat at a temperature of 110° C. (230° Fahr.) for two hours.

(*c*) Matresses and blankets soiled by the discharges of the sick:

1. Destruction by fire.
2. Exposure to super-heated steam, 105° C. (221° Fahr.) for ten minutes.

(Mattresses to have the cover removed or freely opened.)

3. Immersion in boiling water for half an hour. —*Jour. of Am. Med. Assoc.*

(*To be continued.*)

ROBT. SMITH, M.D., Durham County Asylum, Sedgefield, Ferryhill, England, May 25, 1886, says:—"I have tried your BROMIDIA, and found it so very satisfactory that I have used your preparation constantly ever since. I think I need say nothing more in its favor."

## TREATMENT OF BRONCHO-PNEUMONIA IN CHILDREN WITH APPLICATION OF ICE.

Dr. Angel Money, Assistant Physician to University College Hospital, London, in a communication to the *Lancet*, says that he has treated many cases of severe broncho-pneumonia in infants and children with applications of ice-bags. The cause of the pneumonia does not, in his experience, influence the employment of the ice-bags. It may be used with much success even in cases of broncho-pneumonia secondary to tracheotomy, but still more favorably in cases occurring in influenza and measles. The smaller the child, the more marked, he says, are it effects. In very small infants, under one year of age, the ice-bag may be placed on the head, the hair having been previously thinned and shortened if necessary. The treatment, to be successful, must be carried out with a will, and systematically. As a general rule, the temperature in the rectum affords the best guide to the application of cold, and those acquainted with broncho-pneumonia well know the highly-marked remittent or also of intermittent character of these affections. Ice-bags have the objection that they often give rise to a little wetting of the child; but this has not, in his experience, proved injurous to the patient. Leiter's tubes have been tried, and have some advantages, being especially valuable when an intelligent nurse is in attendance. In severe cases, in which a rapid effect is required, two ice-bags have been placed on the head and one over the chief seat of consolidation in the lungs. With a little management, he says, it is not difficult to keep these in place; certainly not when the neuro-muscular prostration is marked, as it almost always is in severe cases. The chief merits of this treatment, he says, consist in the maintenance of the strength not only of the heart, but also of the respiratory centres and of the nervous and muscular systems. Although otitis media occasionally occurred, yet this has has not been more frequent than in cases treated without cold. Albuminuria, he says, is not rendered worse by the cold, nor have any cases of hæmaturia been observed, although Dr. Money has been at some trouble specially to collect and test the urine. The duration of the disease he declares to be, on the whole, shortened. Convalescence is almost invariably rendered more rapid, doubtless because of the conservation of the child's energy.

Not only, he says, does the cold directly quiet the heart and and steady the circulation, but the calming of the nervous system also acts indirectly in the same direction. The respiratory centres are similarly beneficially affected. The heat-regulating apparatus manifests more clearly the same beneficient action, and the temperature-chart shows a similar harmonious effect. It is curious to observe the almost immediate cooling of the whole surface of the body soon after the application of ice to any part, this cooling effect being best marked when the ice is applied to the head; the hands previously red and hot, become cool and slightly blue. The change is decidedly favorable, notwithstanding the supervention of the signs of feeble circulation in the exposed parts of the skin. Vomiting and diarrhœa, alone or in combination, may require treatment in the cases under consideration; the cold method, he says, does not increase diarrhœa, but certainly tends to stave off vomiting. Stimulants are to be used when indicated, but they are less apt to be necessary under this treatment. There is, he says, a saving of expense all around: the cost of the illness is lessened and there is less expenditure of reserve strength.—*Med. and Sury. Rep.*

## THE TREATMENT OF VALVULAR AFFECTIONS OF THE HEART.

Dr. J. M. DaCosta, of Philadelphia, read a paper with this title, in which he showed that not a study of the valvular conditions, but a clinical observation of the effects of various medicines, was at the root of the matter in successful treatment. When compensation was good no drugs were to be given. If the heart was overforceful, sedatives were of value, and when the heart action tended to fail, small doses of digitalis might prolong life for years. The same valvular affection in different cases called for different treatment. He had seen cases in which aconite gave marked relief where digitalis could not be endured at all and made the condition worse.

As for dosage, he had usually found the best effects from digitalis when given in ten-drop doses twice a day; but some patients did better on ten drops of the tincture once a day; and a few did best on five drops every four to six hours. If the stomach became deranged the drug might be given by suppository. Where there was dilatation of the heart, much larger doses were needed, and it was well to alternate with alcohol and strychnine. When compensation failed, the pulse became rapid and compressible, and œdema appeared, large doses of digitalis, such as fifteen minims of the tincture every hour, were needed, aided by ammonia and brandy. In aortic regurgitation, digitalis was useful if the heart-fiber was sound; but if it was degenerated, arsenic and strychnine gave better results. There were cases of aortic narrowing or regurgitation where compensation was complete, and here no uneasiness was felt. In such cases the patient merely needed to be warned not to undergo sudden strain and to lead a temperate

life. Disturbances in regularity and rhythm scarcely called for medical treatment, although some cases of excessive irregularity were improved by belladonna. In dilated heart we had a condition where we wished to strengthen the heart so as to overcome passive venous stasis, and yet, if possible, without causing contraction of the arterioles and capillaries, which so increased the strain on the heart. Thus far we had found no one drug which would do this. It might in the future be accomplished by some combination. The cause and duration of a heart condition must be taken into account when treatment was considered; thus, three months having elapsed after the development of heart trouble with acute rheumatism, no cure was possible; iodides utterly failed. We should guard against a recurrence of the latter disease. The heart troubles coming on with age had no remedy. When there was decay or fatty degeneration of the heart, acids were of but slight aid; we had no remedy, and the strongest stimulants were needed. But in functional disorders much could be done. Rest, graduated exercises, good diet, and cardiac stimulants in small doses were indicated. Great attention was to be paid to everything bearing on the general health, so that the heart should be nourished with good blood; but iron was not of use; it produced constipation, fullness about the heart, headache, and a deranged stomach. Good food was better than iron; coffee and tea in small amounts were not harmful; neither were alcoholic drinks in small quantities if no gouty tendency was present. Light wines, except champagne, were allowable. He advocated gentle exercise and complete repose where there was a violent heart action. Cheerfulness was important; nervous people were apt to do badly, worry being equivalent to a short life in its meaning.

Palpitation had an appearance of strength about it which was fictitious. It really meant a state of weakness and needed ammonia and brandy. It was made worse by fatigue, opium, cannabis indica, or bromides. Nitroglycerin was often valuable where not too disagreeable to take. Speaking of the secondary results, diminution of the urine and its high specific gravity, and many urates without albumin, accompanied by headache and dyspnœa, was a state often relieved by diuretics, caffeine and benzoate of sodium being recommended. Dyspepsia was very common both with and without engorgement of the vessels. In the latter case purgatives and minute doses of calomel were of use.

As to the new drugs, he had found none equal to digitalis. They were of value when the latter could not be longer continued. Strophanthus, caffeine, and adonidine were discussed. Cocaine had a slight value; also chloride of barium was a general as well as a cardiac tonic and easy on the stomach, one-tenth of a grain in pill three or four times a day being the best dose to use. The author advised that a regular periodical examination be made of all persons having heart disorders, even if they felt well, in order that further changes might be met when they began, and life be thus prolonged.—*N. Y. Med. Jour.*

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IS TETANUS CONTAGIOUS?—In a review of the more recent investigations into the pathology of tetanus, Mr. Wm. Anderson states *(Lancet)*: "It is certain that although tetanus may be induced by the inoculation of a specific micro-organism or of a specific ptomaine, its occurrence as the result of direct transmission from one subject to another has yet to be demonstrated by clinical experience." As a note on the above statement, I wish to record the following cases.

Chai S——, farmer, aged thirty-one, was admitted to the Foochow Native Hospital on Sept. 28th, 1887, suffering from a crushed toe. The accident had occurred three or four days before admission, and our native assistant, finding the toe gangrenous, amputated it. Symptoms of tetanus appeared on the following morning. The patient was removed to a little private room, carefully fed, and put on full doses of chloral and bromide of potassium. Severe opisthotonos developed, and death from exhaustion occurred on Oct. 1st.

Sin T——, preacher, aged thirty-one, was admitted to the hospital on Oct. 8th, suffering from internal bleeding piles. The bowel was cleared out with castor oil, and on Oct. 10th, the piles were ligatured. After operation the patient was placed in the little room in which the man Chai S—— had died ten days previously. Opium was given, and the bowels kept at rest till the piles dropped off. Recovery was rapid and uninterrupted. Nine days after the operation, considering himself perfectly well, the patient returned to his home, some three miles distant. On the following morning, Oct. 20th, he reappeared at the hospital, complaining of stiffness in the jaw and muscles of the back. Placed in a different ward, he was at once put on full doses of chloral and bromide of potassium. The rectum was washed out with warm carbolised water. The anal wound looked perfectly clean. Opisthotonos soon developed, but under the chloral the spasms were limited to two or three an hour. The urine was drawn off every six hours under chloroform. Nourishment was taken well, and good hopes were entertained of recovery. On the fifth day of his illness, however, influenced by some foolish friends, he took a gloomy view of his own case, gave up hope, refused nourishment, and died of exhaustion on Oct. 26th.

*Remarks.*—The coincidence of the two cases was striking, and strongly suggestive of contagion.

Tetanus is not common in Southern China. In eight years of hospital practice, I had previously met with but one case. Our present hospital was built a year ago, is thoroughly ventilated, and occupies a healthy site. The room which the two patients occupied is 10 ft. by 8 ft. and has a wooden floor raised 2 ft. above the level of the ground. Though it appeared clean, the room had neither been swept nor washed since the first patient had died therein. Is it possible that our second patient was inoculated through the anal wound by dust containing specific micro-organisms generated by our first patient, and tetanus produced? The necessity for the thorough cleansing of a ward in which a case of tetanus has occurred is clearly indicated.—Dr. Adams, *Lancet.*

CHLORATE OF POTASH IN EPITHELIOMA.—M. Reclus has recently revived an old plan, somewhat in vogue forty years ago, of treating epithelioma of the skin by means of chlorate of potash, and is disposed to think that while this plan cannot be recommended wholesale as a substitute for excision, there are cases which, operative measures being, for one reason or another, inadvisable or impossible, may be satisfactorily treated in this way. One main point to be taken into consideration is the rapidity of growth. In order that chlorate of potash may have any chance of success, it must be employed for a considerable time. It is therefore only suitable in cases where the growth of the tumor is slow. Dr. Lemoine, of Lille, also has reported two cases of epithelioma, or cancroid as he calls it, where chlorate of potash was employed with eminent success. In one case the the tumor occurred in an old woman, occupying a large part of the left cheek, there being three enlarged glands at the angle of the jaw, and the skin around the ulcerated growth being tense, shining, and of a purple color. Half a drachm of chlorate of potash was given daily, compresses soaked in a solution being also applied to the cheek, and a large pinch of the powdered salt being sprinkled over the surface of the tumor twice daily. The discharge of ichor, which had been abundant, soon began to diminish, and in about three weeks signs of improvement began to show themselves round the edges of the ulcer; in six weeks time the diameter of the ulcer had diminished from 8 centim. to 4 centim., the surface having become hard and dry, like that of a scirrhus, and the epidermis spreading over it a little more each day. The glands had become smaller; in eight weeks the surface had completely healed over. The internal administration was continued for a fortnight longer; since that time—some nine months before the report was made—no return of the signs of the disease had occurred. The second case was an epithelioma of the great toe, which had lasted about two years. This was treated by the internal administration of chlorate of potash and by its local application for about ten weeks, at the end of which time complete recovery is stated to have taken place. Unlike Dr. Lemoine, M. Reclus confines himself to the external application of the chlorate of potash. He finds that this is not suitable for cases where the growth affects the mucous membrane, because of the greater depth to which it generally penetrates under these circumstances. It acts best where the tumor is confined to the skin; but it may be employed where the junction of the mucous membrane with the skin is affected.—*Lancet.*

THE DOCTOR AT HOME.—The doctor's wife, says the *Boston Med. and Surg. Jour.*, was not long since overheard telling her husband that he was pleasant everwhere save in his own family; and the doctor admitted that his good-nature was so exhausted in his daily visits to his patients that he was irritable when he reached his home. "Exactly how true the doctor's admission was in that particular instance," our contemporary continues, "it is impossible to say, but it seems as though in the ordinary course of a doctor's existence such a condition might often occur. Physicians certainly meet with many things in their daily rounds that try their tempers. Life is, for most of them, a constant study how to coax or to compel obstinate or ignorant, perhaps silly or even insane, patients to follow the course thought to be for their good. All these troublesome individuals must be reasoned with or influenced by some means to do as they ought. To carry his point the doctor must keep his temper. He usually preserves and outward calm, but if he is naturally quick tempered it is often at the cost of an effort which is exhausting. After such a struggle he reaches home in a state of irritability combined with mental and physical weariness, and under such circumstances it is not easy to meet little home trials with patience." We regret to notice in our esteemed contemporary a vein of apology for the irritable doctor which is hardly justifiable. The physician has no right to exhaust his good humor abroad and bring only an irritable mind to the domestic hearth. The doctor is expected to be a Christian or a philosopher, or both; and, if he is either, he can find no justification for being cross to his wife, and good-natured to his patients. We have known this evening irritability, which is not a characteristic of doctors by any means, to be relieved by a cup of bouillon, a five o'clock tea, or even a buffet-indulgence of a stronger character. Some physicians claim that effervescing caffein, or a good draught containing some mineral acid, relieves the tired and overstrung nerves. At any rate, the resources of religion, philosophy, the lunch-counter, and the drug-store, are open for the relief of this

sunset erythism that follows hard work.—*Med. Rec.*

HEART-SOUNDS WHEN THE BREATH IS HELD.—Will you allow me to caution practitioners against what I believe to be a not uncommon source of error in connection with certain conventional modes of examining the heart? The patient is told to "stop breathing." This he does with a more or less forcibly inflated lung, the result being that the contact and impulse elements of the heart-sounds—and we too often forget how large these elements really are—become exaggerated. In addition to this, the lung being not infrequently distended by a very deep inspiration, taken hurriedly at the moment when the patient is told to "stop breathing," the mechanical obstacle offered to a free passage of blood through the vessels of the lung is especially great. What the listener hears when the patient's breath is held will not be the cardiac sounds, simply unmasked by the suspension of the pulmonary sounds, but the former exaggerated and distorted by the accidental physical conditions of the lungs and the heart, and their surroundings in the thorax; which conditions are abnormal, for a state of forced, or even fixed, inspiration is not normal, and it *modifies* as well as intensifies the heart-sounds sensibly, as any close observer may detect. The very frequent appearance in the consulting room of cases of supposed heart disease, in which, when examined under ordinary conditions, nothing can be discovered to support the hypothesis of disease, may perhaps be to some extent accounted for by the method of examining to which I have ventured to object.

Another point of moment is the position of the patient. I do not think any physician is justified in affirming the existence of a morbid state until, or unless, he can satisfy himself that the known effects of change of position on the several performances of the cardiac mechanism are produced. It is a matter of very great concern that the number of persons living lives of misery because they have been told that "there is something wrong with the heart," is of late largely increased and increasing; while no inconsiderable proportion of such persons have, in fact, nothing whatever the matter with their hearts beyond. perhaps, some sympathetic disturbance. I am not now thinking of the scare produced by "anæmic" sounds, which, by the way, are too often misconstrued even by expert and experienced examiners, but of hypothetical "valvular disease" in hearts which are in no way organically affected, or even the subjects of exceptional muscular debility.—J. Mortimer Granville, in *The Br. Med. Jour.*

PUNCTURE OF A VEIN IN HYPODERMIC MEDICATION.—The patient was a woman of 50, who for eight months had been given hypodermics of morphine for acute neuralgic pains in the legs. The dose given on this occasion was a smaller one than usual, equal to one-third of a grain, and was injected into the forearm. The injection had been given with the usual caution, and on withdrawing the needle there was no bleeding, although sometimes there was a considerable amount. Almost as soon as it was given the patient called out that there was something wrong, as she felt a prickling, burning sensation all over, and a feeling as if her head and hands were swollen to such an extent as to burst the skin. When I saw her she was very flushed, the eyes were protruded, and she was greatly distressed. I gave her at once a dose of tincture of belladonna. She quickly became very excited, and inclined to struggle and cry out, till this stage passed off, when she turned extremely pale, and fell back on the bed in an unconscious state; the lips were blue, the skin was very gray, and the face much swollen; the pulse was very weak and fluttering, and the breathing stertorous. Shortly afterwards there was a convulsive movement with arching of the back, and both breathing and pulse became almost imperceptible. A little whiskey was administered by forcing open the clenched teeth, and in a few minutes the stertorous breathing recommenced, and she began very slowly to return to consciousness. Some citrate of caffeine was then given along with some digitalis, as she has a very weak heart. Another dose of the belladonna was shortly administered, and during the rest of the afternoon whiskey and coffee were given in small doses at frequent intervals. She was greatly prostrated, and suffered from intense weakness and very severe headache, which continued for two days. The morphine in this case had none of its usual effect, and no sleep was obtained for over thirty hours.—Dr. Balfour, in *Lancet.*

HIGHER MEDICAL EDUCATION.—Dr. Carl H. von Klein, of Dayton, O., in his address before the American Rhinological Association, spoke as follows of higher medical education: "I maintain that no one can receive a thorough medical education without a thorough academical training. The mind that is trained to academical knowledge is inspired to a nobler and sublime course in life, in righteousness, piety, benevolence, industry, sobriety, equity, and frugality, kindled with aspiration for a special pursuit in science to whatever calling by nature of human duty he may be assigned to. If the physician possesses an academical knowledge, he will make the boundless science of nature his study; he will aim to inquire from the beginning of the creation of man, and turn every stone to find inscriptions that may be engraved by organic life. He will form exalted ideas of monuments of primeval antiquity, and make use of all

antemundane ways that may be conjured from the outmost bosom of the earth, in order to throw a bright light upon development of medicine. Such men can have no other motive than human welfare. And when they read the works of great men who existed in all generations, whose carcasses have long decayed, but their heroic names still live, then they are kindled with high aspirations and are anxious to become heroes in the conquest of nature. Thorough education make men gentlemen by habit, by custom, by civilization, by law, and by dress. From the history of the infancy of our race unto the present day, developments of trades and arts are emerged from their primitive state to a perfection, by those who devoted their attention to one kind of skill, and made life almost double its value.

"Those stupendous facts in which the whole spirit of the nineteenth century moves, is due to a higher grade of education. In this age of multifarious learning, in which the whole spirit of humanity powerfully and wonderfully moves, cannot, as formerly, be overshadowed by ignorance and superstition. Thorough education will dissipate the darkness of empiricism and disloyalty to humanity. The inventions of surgical instruments is the wonder of this generation. Every day we hear of some new design that harnesses a new force, and assists in means of curing disease. The most useful of all of them are the different scopical inventions, and by their aid physicians are enabled to make correct diagnosis which leads to a rational treatment of disease of more obscure cavities. To the scopic appliances we are greatly indebted for the development of specialties in the practice of medicine, and yet has it not developed charlatans and empiricism? Has not the vaginal speculum been the cause of producing so great an army of gynæcologists, that 99 per cent. of the young men who graduate in their schools, regardless of their pathy, immediately equip themselves with a chair and a speculum? Has not the rectal-speculum encouraged the so-called pile doctors? And has not the rhinoscope been the means of producing thousands of travelling catarrh specialists, who pretend to see more with their appliances than the ordinary intelligent physician?

> "The doctor's optics must be keen,
> Who sees what is not to be seen."

Hot Air Inhalations in Phthisis.—Two German observers, or, to speak more correctly, two observers in Germany, have, independently of one another, been engaged in investigations on the bactericidal property of heated dry air, and on the methods of utilizing this property for the practical treatment of phthisical patients. Dr. Weigert, who appears to be an American living in Berlin, finding that tubercle bacilli outside the body die at a temperature of 41° C., and are adversely affected by one of 38°, had constructed an apparatus for the inhalation of heated air, and commenced to make trials on phthisical patients in the early stage recommended to him by other medical men, he himself not being in practice. At first a temperature of from 40° to 60° C. was employed, the air for inhalation being quite dry. This temperature was gradually raised as high as 80° C. The patients bore this hot dry air exceedingly well, and continued to inhale it for three or four hours a day during a month, the only unpleasant effects produced being hyperæmia and dryness of the mucous membrane. The general effects are represented as having been remarkable, patients who had been falling away picking up strength and becoming quite robust, the physical examination showing at the same time that the dulness and râles had perceptibly decreased. The bacilli in the sputum, which had been very numerous, rapidly diminished in number, and finally disappeared altogether. These observations were confirmed by several other medical men. Dr. Halter, of Lengerich, Westphalia, seems to have gone even further than Dr. Weigert, he having himself inhaled, and caused patients also to inhale, dry air heated to 190° C., with satisfactory results.—*Lancet.*

Preventive Surgery, as Illustrated in Knock knee and Flat-foot.—Mr. Ellis (*Brit. Med. Jour.*) maintains that treatment of these deformities based upon strengthening of the muscular support is highly satisfactory. If it is admitted that failure of muscular support leads to yielding of ligaments and altered bony surfaces in joints, it appears that vigorous use of the muscles will make them strong and taut; that in this condition they relax and thus renew the overstretched ligaments, and also, by exerting constant pressure, remodify the altered contours of the bony surfaces of the joints. The mechanical law he states thus: According to the parallelogram of forces, a well-known law, if a force acting in the line from the knee toward the hip be opposed by a force acting in the line from the knee toward the foot, in a case of knock-knee, the resultant will be the diagonal of the completed parallelogram, or a tendency toward bow-legs. But all the muscles attached to the leg bones below and to the pelvis above do act in the line from the knee to the hip, while the weight of the body acts from the knee toward the foot, so these muscles draw the knee toward a straight line between the foot and the pelvis, when, as in the erect position, the foot is a fixed point. This action should be utilized in correcting knock-knee. This explains also the spontaneous recoveries which do occasionally occur, and the fact that muscular exercise will remove the deformity.

For flat-foot he maintains "for prevention pro-

mote, for restoration renew, the functions of the flexor longus pollicis." The tendon of this muscle subtends the plantar arch in the same relation that a bow-string has to a bow, and must exercise a most important influence on the flexible arch. The writer has obtained the most satisfactory results on himself, as well as others, by treatment based on these lines.

The exercise he recommends is to bring the foot to extreme tiptoe, the knee and hip to full extension, and then, after a pause, to suddenly and vigorously draw downward. This he obtains by raising a weight by means of a cord running over pulleys, by turning a wheel placed so high that the handle is with difficulty reached when at the highest part of the cycle, by pumping, if the handle is placed high enough, or by bell-ringing.

He believes that in flat-foot supports do more harm than good by preventing free action of the short flexor muscles. He is "equally certain that for knock-knee they are in principle wrong, and in practice unnecessary. So also of tenotomies in either deformity. Osteotomies and resections," he says, "I can only regard as unwarrantable mutilations."—*N. Y. Med. Jour.*

PELVIC CELLULITIS IN THE MALE.—In a recent number of the *Tidsskrift for Pract. Med.* Dr. Skjeldrup describes a case of pelvic cellulitus in a man fifty years old. The first symptoms in this case were vomiting, flatulence, constipation, abdominal tenderness, and tympanites. There was some pain over the cæcum, and resistance, on palpatation and dullness on percussion at the same point. Examination per rectum showed a tolerably hard tumor situated in the left hypogastrium; it was easily felt by bimanual palpatation. An aperient was given, with quinine and iodide of potassium, and wet compresses over the abdomen, for some days. The patient did not improve, the abdominal pain and distension became greater, the difficulty of passing flatus and fæces increased, and the patient was becoming more and more emaciated. An œsophageal tube was passed up to the sigmoid flexure, and a warm enema given producing a scanty evacuation. The tube was bent by the tumor, which displaced the gut backwards. The enema was repeated two days later, resulting in the copious evacuation of foul-smelling fæces. The patient then began to improve, and after a few more injections fæces were passed naturally. At the end of a month there seemed to be but a slight infiltration anterior to the rectum. The tumor, while it existed, was of an irregular shape, and sometimes appeared to be firm elastic and tender. In 1885 Dr. Muir of Selkirk published a case of pelvic cellulitus in the male.—*Jour. Am. Med. Assoc.*

UNTOWARD EFFECTS OF CASCARA SAGRADA.—Dr. C. M. Fenn relates in the *Therapeutic Gazette* for August his experience with the use of this drug, which he believes to be "not a harmless laxative, adapted for general and protracted use, but an irritant cathartic, requiring in its use great circumspection and care." As this is at variance with the estimate of the drug in the opinions of most observers, we will quote several of Dr. Fenn's unfortunate experiences in his use of the remedy. He noticed obstinate vomiting, violent cramps, bloody stools, and, in one instance, in which death occurred from cerebral anæmia and valvular disease of the heart, the patient had been taking a strong decoction of the bark, to the effect of which Dr. Fenn ascribes the existence of large patches of ecchymosis found in the mucous membrane of the stomach. This patient was seventy years of age, and very feeble; and the irritant action of the drug upon the gastric mucous membrane was believed to be the exciting cause of the fatal attack of cerebral anæmia. It may be worthy of note that in the greater number of cases the drug was used in combination, and in cathartic rather than small repeated doses. The latter plan of administration has proved most successful in the experience of most observers, and is rarely accompanied by any disagreeable effects other than a moderate degree of cramping pain.—*Epitome.*

GONORRHŒA—ITS TREATMENT IN THE FEMALE.—In a paper read before the Cincinnati Academy of Medicine, the writer says:

The following treatment has been instituted in a number of cases under my care: The vagina is thoroughly cleansed by the use of an alkaline solution. The solution should be strong and at a temperature ranging between 43° and 46° C. This procedure has a two-fold object: First, to remove as much of the vaginal epithelium as possible; second, to relieve the hyperæsthetic condition of the parts. The patient should now be placed upon the table, with the buttock elevated. After warming and oiling, a Ferguson's speculum should be carefully introduced. A tampon saturated with boro-glyceride is placed in contact with the cervix, and we now proceed to pack the vagina with acidi boraci, withdrawing the speculum as the process advances, until the entire canal is filled. If excoriations exist about the external genitalia, the labia should be separated and a piece of lint, previously dipped in boro-glycerine, placed between them. The application of a T bandage, or napkin, completes the first sitting. This dressing should be allowed to remain *in situ* for a period of thirty-six hours. After removing the dressing and using the vaginal douche, a solution of the hydrarg. chlor. corr., 1 to 1,000, should be used as an injection. The dressing is re-applied in the course of eight or ten hours. Seventeen cases under my care have been subjected to this line of treatment. Five of them were primary cases, two had had the

disease twice, six three times and the remaining four had been so frequently affected that they could not recall, with any degree of accuracy, the number of times they had been "diseased." Three of the primary cases required five applications of the acidi boraci, as did four of the six cases which had been three times affected. The majority required but four sittings. In no case did the discharge continue longer than fifteen days, the shortest period required being nine days. Treatment was adopted in all instances in from four to twenty-four hours after the appearance of the flow.—Dr. Haines, in *Cin. Lan. Clin.*

THE PROPER STATUS OF EXPERT MEDICAL TESTIMONY.—Nowhere in English-speaking lands is the status of medical expert testimony in a satisfactory state. Even in the highest circles of Scottish medical learning, eminent judges have commended the propriety of doing away with medical testimony altogether. If such unfavorable criticism can be incurred in one of the greatest centres of medical learning in the world, how much more do we risk it with our short terms of study and hasty methods! A change of the whole system of giving medical expert evidence seems to be a pre-requisite to placing it on a satisfactory basis. In our land every physician assumes to be an expert, and in the eye of the law one is as much so as another. If a lawyer needs medical opinions of a certain character in one of his cases, he starts out and searches till he finds, if possible, some physician who holds the views he desires. Counsel on the opposite side does the same. The result is that in nearly every case there is a conflict which brings medical testimony into disrepute. The only way out of it that I can see, is, for a corps of thoroughly qualified experts in various departments of medicine to be selected by some competent examining board to enlighten the courts on questions of legal medicine. These ought to act in each jurisdiction as a board with opportunities to confer together, as judges of the higher courts of law now do, and by mutual suggestions be enabled to present a mature opinion. If the judges of the highest courts in the land were compelled to give a decision, one by one, by compulsory answers on the witness stand, they would be necessarily brought into disrespect among the people.—Dr. Smith, in *Am. Pract. and News.*

OLIVE OIL IN HEPATIC COLIC.—At a recent meeting of the Société Médicale des Hôpitaux, M. Chauffard stated that he had tried the olive oil treatment for hepatic colic with the following results. Four hundred grammes of pure oil were given in two doses, at an interval of a quarter of an hour. The patient then remained lying on his right side for three hours. M. Chauffard treated in this way several arthritic, obese women from 45 to 60 years of age, suffering from gall-stones. The symptoms improved, and in about seven or eight hours numerous half-solid, greenish concretions were evacuated. The size of these varied from a pin's head to a hazel nut. They were not, however, biliary calculi. Chemical analysis showed that they contained only a small quantity of cholesterin, and that they were principally composed of neutral fat and fatty acids. A cholesterin calculus does not undergo any modification by being immersed in olive oil. The oil absorbed cannot, therefore, dissolve the calculi in the bile ducts. During their experiments on animals, MM. Chauffard and Dupré observed that the oil introduced into the stomach never ascended above Vater's ampulla in the bile duct, and could not therefore soften and expel the calculi as had been supposed. When olive oil is introduced into the duodenum of the dead subject, between two ligatures, it never ascends into the bile ducts, even when the gall-bladder is half filled. Dr. Touatre's hypothesis that the oil ascends into the bile ducts as in the wick if a lamp is therefore erroneous. The remedy is, nevertheless, an efficient one. The dose of 400 grammes is absorbed without further inconvenience than nausea, and a slightly purgative effect. Observations reported by MM. Hayem and Bucquoy, show that this remedy may be employed with advantage in cases of biliary lithiasis accompanied by chronic icterus.—*Br. Med. Jour.*

SURGERY OF ABSCESS OF THE LUNG AND EMPYEMA.—In an address on the surgical treatment of abscess of the lung and empyema, delivered before the British Medical Association, at its meeting in Glasgow last August, M. T. Pridgin Teale spoke of the following points as gradually becoming clear in the surgery of the chest.

1. We are losing our fear of exposing the pleura and the lung, just as we have learned step by step how to deal boldly and safely with the peritoneum.

2. The evil of admission of air into the pleural cavity is not the mere exposure of the pleural surface to the air, is not that the lung collapses by the mere admission of the air, but that where there is a fairly healthy lung and pleura, the inrush of air reduces to a serious extent the mechanical power of the thoracic wall over the function of inspiration.

3. That in cases in which this mechanical difficulty threatens the life or impedes the recovery of the patient, surgery must decide upon the best method of closing the wound to the inrush of air, whilst allowing adequate drainage of any pus cavity to be carried on.

4. That the region of the diaphragm is a situation in which abscess amenable to surgical treatment frequently occurs, such abscesses often commencing below the diaphragm, and tending to discharge through the diaphragm and through the lung.

5. It seems probable that such abscesses can be more safely attacked through the lower angle of the thorax, provided there is dulness at the seat of puncture, than through the abdominal wall.

6. As to washing out the cavity of a large pleural, or pulmonary, or hepatic abscess, it is probable that antiseptic washing is of value in the early period, whilst the cavity is offensive; but that, as soon as the secretion has become sweet, washing is not only unnecessary, but tends to disturb the comfort of the patient, and retard his progress. If drainage is effective, so that fluid does not lodge, the fluid, which is sweet when secreted, should escape from the cavity before it has time to deteriorate.

7. As to the question of excision of portions of rib in treating empyema, on this point I am unable to speak from personal experience. The tendency of surgical opinion seems to be rather to reserve it for special and exceptional cases than to make it a general rule of practice.—*Med. and Surg. Rep.*

HYGIENE OF THE EYES.—Dr. Lincoln, of Boston, in the *Annals of Hygiene* formulates the following rules to be observed in the care of the eyes for school work:

1. A comfortable temperature, and especially let the feet be warm and dry.
2. Good ventilation.
3. Clothing at the neck loose; the same as regards the rest of the body.
4. Posture erect; never read lying down or stooping.
5. Little study before breakfast or directly after a hearty meal; none at all at twilight or late at night.
6. Great caution about study after recovery from fevers.
7. Light abundant, but not dazzling.
8. Sun not shining on desk, or on objects in front of the scholar.
9. Light coming from the left hand, or left and rear, under some circumstances from in front.
10. The book held at right angles to the line of sight, or nearly so.
11. Frequently rest by looking up.
12. Distance of book from the eye about fifteen inches.—*N. O. Med. and Surg. Jour.*

THE TREATMENT OF ACNE.—At a recent meeting of the Berlin Medical Society, Mr. Isaacs gave an address on acne, principally discussing the treatment of the disfigurement, and showing patients. After describing the various methods of treatment, he remarked that while employed in Lassar's klinik, where every form of treatment was tried, he invariably fell back on a ten per cent. napthoi ointment, composed of napthol 10, sulph. precipit. 50, saponis virid. and vaseline each 20 parts. The ointment was applied to the affected parts, and kept there from half an honr to an hour, and then removed with lint oil. The following day there was slight redness and scaling of the skin. The procedure was repeated until the peeling was completed, which usually took place in from eight to fourteen days. Lately he had adopted the use of a resorcin ointment in obstinate cases: Resorcin, 2.5 to 5.0; zinc oxid. and amyl. 5.0; vaseline, 12.5. M. To be made into a soft paste. The ointment to be put on at night and allowed to remain on till morning. He had seen very good results in the ten or fifteen cases in which the treatment had been employed.—*Med. Press.*

PSEUDO-CASTRATION.—A foreign contemporary reports the case of a young woman, of a highly nervous temperament, who had not menstruated for ten years, since the sudden arrest of the flow, consequent on a fright. This suppression reacted on her, and made her a confirmed invalid. She had kept her bed for several years. The patient was anæsthetized, and Dr. Chiarleoni made an incision in the median line extending through the epidermis only. This was sutured and covered with an antiseptic dressing. The result of the operation was surprising. On the third, fourth and fifth days after the operation there was a copious discharge of blood from the uterus, with lumbar and pelvic pain. The ultimate effect was a marked amelioration of the patient's general condition, and she was soon able to get up and take exercise.—*Med. Press.*

DR. LOVE says: A point important to keep in mind is, that the oil of turpentine—cheap and always within reach—is one of the most valuable remedies in the materia medica, as a local and general stimulant, as a germicide and preventer of fermentation, and last, but not least, internally administered, as a checker of bleeding.

## MORPHINE.

Translated from Heinrich Heine by the late Emma Lazarus.

Marked is the likeness 'twixt the beautiful and
youthful brothers, albeit one appears
Far paler than the other, more severe;
Yea, I might almost say, far comelier
Than his dear brother, who so lovingly
Embraced me in his arms. How tender, soft
Seemed then his smile, and how divine his glance;
No wonder that the wreath of poppy flowers
About his head brought comfort to my brow,
And with its mystic fragrance soothed all pain
From out my soul. But such delicious balm
A little while could last. I can be cured
Completely only when that other youth,
The grave, pale brother, drops at last his torch.
Lo! sleep is good; better is death—in sooth
The best of all were never to be born.

—*Cincinnati Lancet-Clinic.*

# THE CANADA LANCET.

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## DIDACTIC LECTURES IN MEDICINE.

A few words regarding the necessity of medical students taking two courses of didactic lectures in all the important subjects of the medical curriculum, may not be inopportune, now that the subject has been briefly discussed, both in print and out of it.

Those who can look back, even a few years, and compare the clinical advantages enjoyed by the then students of medicine, with the advantages of to-day, in all our centres of medical education, must in all honesty admit that much has been done to advance the practical side of medical science; and none too much, indeed not even enough has been accomplished in this direction; but sufficient has been done to show that our teaching bodies recognize the fact that practical work is an absolute necessity in the present day of advanced scientific research. In Toronto the two schools have wisely united their forces, and by the assistance of the authorities of the hospital, a very creditable clinical course is now open to every student who chooses to take advantage of it. But during the winter months the number of students practically precludes the possibility of each one getting a large amount of personal instruction at the bedside. When we say instruction at the bedside, we mean not that he shall stand or sit with a patient in sight while the lecturer gives an elaborate and well digested lecture on, say, pleurisy, but that he shall have the opportunity of examining the patient himself, under the guidance of his clinical teacher. For, we maintain that a lecture at the bedside, thoughtful and interesting as it may be, is in no way more practical than one in the class-room, if the students can not examine the patient for themselves.

If we can by any means increase the amount of practical knowledge a student shall gain while at college, by all means let it be done. But we do not believe that the didactic teaching should be curtailed. One of the oldest and most popular teachers in Ontario has said, that a man who gains his education from books is narrow, and one sided in his views of nearly every subject he has undertaken to master; or in other words, that the self-educated man is a weak man. Now if there be one department of science more than another, in the study of which, the student requires careful guidance, it is medicine. It may seem unnecessary to an old practitioner, who has not only read but practised for years, that a youth should have lectures on, say, peumonia, repeated to him twice in a purely didactic way. But if it be considered that that same student has at best, but a hazy notion of peumonia, that his youth and inexperience make it impossible for him to seize upon the salient points and vital principles which go to give him a clear understanding of the disease, even though he had at his disposal the whole medical library at Washington; it will appear that a thorough didactic training is an absolute necessity. It separates for the student the grain from the chaff, it indicates the essential and salient points in any given subject, and saves an immense amount of labor, and time, which would otherwise be spent in wandering more or less aimlessly, far afield, in the maze of text-books in which he would be groping.

Of course the *quality* of didactic lectures, just as of tea or sugar, has much to do with their value. Medical students are, as a class, rather hard-headed, and endeavor to get a *quid pro quo* for their time and money. It is certain then that if the time occupied in didactic lectures could be more profitably spent in their own studies, there would the students be found, as is indeed the case when a lecturer is not up to the mark as regards the quality of the article he supplies. But the didactic lectures of all earnest, hardworking, skilful teachers, are we believe, always largely attended. If

text-books supply all the wants of the students, why are "grinds" and "coaches" so largely resorted to, not by the "wasters" at our colleges, but by the very best of our students? or why, to carry the question a little further, did so many of our professional men attend with such marked profit and pleasure the lectures of Prof. Osler, on "Cerebral Localization," given here a few days ago.

His lectures were didactic and yet were most enthusiastically received by the profession of Toronto. If men grown gray in the study and practice of medicine could listen profitably to didactic lectures given by one who has made a study of a special subject, what shall be said of a third or fourth year's student who could not (owing, we suppose, to some phenomenal cerebration) listen with profit to didactic lectures, if they were what all lectures should be, given by one who is a master of the subject under discussion, and with earnestness, zeal, and thoughtfulness.

There is little doubt that one or two summer sessions will ere long be insisted upon. This would supply the necessary time for students to take part in practical work of their year, and ensure a better and more practical graduating class, as it certainly would improve the young practitioner's position when called upon to battle with disease on his own account.

## ELECTROLYSIS IN URETHRAL STRICTURE.

The action of electricity in causing absorption of inflammatory products has been largely canvassed during the past few years. Indeed, the number of diseases which have been reported as cured by the use of this agent, and the brilliant successes scored by Apostoli in the treatment of fibroids of the uterus, and by Newman and Belfield in urethral stricture, have been sufficient to lead any conscientious practitioner who credited the reports, to feel it a duty, and an imperative one, to pay some attention to the study of electricity as applied to medicine and surgery. So much has been written in current medical literature, that to the ordinary observer it seems almost as though electrolysis has come to be regarded as the new method, sure and reliable, for the treatment of that old enemy, urethral stricture. Latterly, however, a number of careful men have given the results of their observations to various medical journals, and their conclusions have not that roseate hue which glowed in the earlier reports of those who 'brought out' electrolysis in the treatment of urethral stricture. Dr. Keyes, N. Y. *Med. Jour.*, says bluntly that the method is a failure. He states that the ideas concerning the method may be summarized thus:—1. "That any one by following certain rules may use the method successfully. 2. That electricity does no harm to the urethra. 3. That stricture cured by electricity is dissipated by absorption, and the urethra remains permanently open." In eight cases observed by Dr. Keyes, one of which was treated by Dr. Newman himself, and the others by Dr. Keyes, no good results were obtained. The cases were typical ones, so that the question is no longer even an open one. Dr. Keyes closes his article as follows:

"I may state that electrolysis with a very mild current—I prefer to put it at less than two milliampères and a half—does no harm; in fact, does nothing that I can appreciate, and does not interfere with the benefit to be derived from ordinary dilatation. I believe that a strong current is full of danger, both immediately from irritating effect and ultimately from cicatricial effect; and that employment of the negative pole does not prevent this. My study of the subject and the experience it has brought me, digested with all the impartiality I possess, lead me to state that the allegation that electricity, however employed, is able to remove organic urethral stricture radically, lacks the requirement of demonstration. The confidence of its advocates that it will radically cure organic fibrous stricture is, in my opinion, due either to the combined credulity of the patient and imagination of the surgeon, or to some special but fortuitous act of Providence, upon the co-operation of which, in the case of his own patients, the general practitioner cannot with any confidence rely."

Dr. Thomas, of Pittsburg, in the *Jour. of the Am Med. Assoc'n*, gives the details of a case he attempted to cure by the new method. He says that after two months' treatment his patient was worse than he had been when the treatment by gradual dilatation was abandoned. He also shows that even according to Dr. Newman's own report, none of his (Dr. Newman's) cases were actually cured. He gives the electricians credit for honesty,

but thinks that whatever degree of cure has been effected by them has been accomplished "purely by the dilating effect of their bougies."

## TRANSPORTATION OF DEAD BODIES.

The question of the transportation of the bodies of persons who have died of communicable diseases is one which we think not well understood by the great majority of the profession, and much needless worry and trouble is often experienced by the friends of the dead person, as well as by the medical man in attendance, and the officials of railroads, steamboats and omnibus lines. The following rules which have been recently adopted by the Michigan State Board of Health, seem to be very full and explicit; we therefore append them for the benefit of such of our readers as may not receive copies of the transactions of that Board. Their careful perusal, illustrating as they do, principles, will we believe repay any professional man, even though he may not be called upon to superintend the removal of such dead bodies.

1. The transportation of the bodies of persons dead of small-pox, Asiatic cholera, typhus fever, or yellow fever is absolutely forbidden. 2. The bodies of those who have died of diphtheria, scarlet fever, typhoid fever, erysipelas, measles, puerperal fever, and other contagious, infectious, or communicable diseases, must be wrapped in a sheet thoroughly saturated with a strong solution of not less than two per cent. of the bi-chloride of mercury, and encased in an air-tight zinc, copper or lead-lined coffin, or in an air-tight iron casket, and all enclosed in a strong, tight wooden box. The coffin or casket must also be surrounded in space between coffin and outside box by sawdust saturated with a solution of chloride or zinc, or bicloride of mercury of same strength as above. 3. In cases of contagious, infectious, or communicable diseases, the body must not be accompanied by persons who, or articles which have been exposed to the infection of the disease. And in addition to permit from Board of Health, agents will require an affidavit from the shipping undertaker, stating how body has been prepared, and kind of coffin or casket used, which must be in conformity with rule 2, and that the health officer of the locality to which the body is consigned, has consented to the proposed shipment, and has had such timely notice of the hour of its arrival within his jurisdiction as will enable him to supervise its reception. 4. The bodies of persons dead of diseases that are not contagious, infectious, or communicable, may be received for transportation to local points in same state; when encased in a sound coffin or metallic case, and enclosed in a strong wooden box securely fastened, so it may be safely handled. But when it is proposed to transport them for a considerable distance, they must be encased in an air-tight zinc, copper, or lead-lined coffin, or in an air-tight iron casket. If any other kind of coffin is used, the body must be properly embalmed. 5. Every dead body must be accompanied by a person in charge, who must be provided with a ticket, and also present a full first-class ticket marked "Corpse" and a permit from Board of Health, giving permission for the removal, and showing name of deceased, cause of death, and whether of a contagious or infectious nature. 6. The permit from Board of Health must be issued in duplicate, the original to accompany body to destination, the duplicate copy will be retained by agent at initial point, and sent to the General Baggage Agent. 7. It is intended that no dead body shall be removed which may be the means of spreading disease, therefore, all disinterred bodies, dead from any disease or cause, will be treated as infectious and dangerous to public health, and will not be accepted for transportation unless said removal has been approved by the State Board of Health, and the consent of the health officer of the locality to which the corpse is consigned, has first been obtained.

REPRESSION OF MENSTRUATION AS A CURATIVE AGENT IN GYNÆCOLOGY.—Dr. Gehrung, read a paper (*Am. Jour. of Obstet.*) on the above subject, at the Amer. Gyn. Society, in which he gave his treatment of excessive menstrual flow. Strong women should lose little blood at such a time, weak and anæmic, little or none. Most women lose too much, and as a consequence, many suffer from neuralgia, neurasthenia, melancholia, anæmia, chlorosis, uterine diseases, etc. The tampon is *the* remedy which stands at the disposition of every practitioner, by which he may regulate to the best of his judgment, the amount of loss in menstruation according to the necessity of the case. It is

preferably made of absorbent cotton, rolled into little balls the size of a walnut. These being squeezed dry from a solution of 1 in 100 to 2 in 100 alum and water, are packed around and upon the cervix until the vagina is filled. This is left untouched for forty-eight hours, unless the bleeding should recur sooner, when it should immediately be applied fresh. This not only lessens or stops the hæmorrhage, but also shortens the duration of menstruation; as a woman habitually bleeding for eight or ten days may be entirely well in two or three days. Rest is desirable during the treatment. If the tampon has been applied during the whole time of the usual duration of menstruation in a given case, and if after the bleeding had ceased it recommences, one may almost be sure of finding intra-uterine vegetations, tumors, etc.

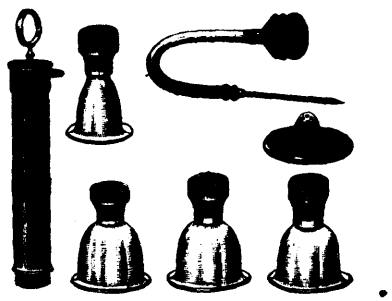
ANTIFEBRINE IN GOUT.—Dr. J. N. Love (*Weekly Med. Review*) has relieved a case of gout in a patient seventy-six years old, who had suffered with acute attacks of great violence at intervals for many years, with five-grain doses of antifibrine every two hours, in solution with brandy to avert its depressing effects. In twenty-four hours all suffering had ceased, and all evidences of inflammation about the joint had vanished.

CATHETERIZATION. — Dr. Zandell, in a paper read at the Louisville Surgical Society, discussed the propriety of suddenly emptying the distended bladder. He showed that after forty years experience in such cases, he had never experienced any trouble whatever follow the emptying of the bladder completely and on the spot, no matter how much, nor how long it had been distended. The chief precautions observed in the use of instruments have been: (1) That the patient be warm, perspiring if possible. (2) Everything about him warm, such as air, bedding, instruments, hands, and oil. The heat acts either by causing the relaxation of the tissues, or by checking the spasm created by repeated unsuccessful attempts. Dr. Bloom suggested that pilocarpine be given to relax the tissues and to produce perspiration instead of, or along with heat.

RESORCIN.—Theodore Maxwell (*Lancet*) has used resorcin successfully in chronic painful ulceration of the tongue when other drugs have failed.

## DR. BLACK'S CUPPING APPARATUS.

A very ingenious apparatus for cupping, is that invented by Dr. Black. In this apparatus we have the cup, breast-pump and aspirator, admirably combined, and the combination is so simple that it is well worthy of our highest commendation. We all know how readily the aspirator gets out of order, and is then a dangerous instrument and worse than useless; in the apparatus of Dr. Black we have at least the guarantee, in the simplicity



of the instrument, that it will not readily get out of order. As a breast-pump, it has the advantage in producing gentle and easily modified suction, which is continuous in its pressure. As a cupping apparatus, we make bold to say, it is not equalled by any apparatus at present known to the profession. It will prove an indespensable instrument to the general practitioner, and every physician will find it time profitably spent in acquiring a personal knowledge of its uses and advantages.

TENSION IN SURGICAL PRACTICE.—Mr. Bryant, in his Hunterian Lectures, says: "Time tells me that I must now draw to a conclusion; and as I have applied the principle of practice I am advocating to every variety of inflammation of bone, I may be allowed to summarize the whole in the following conclusions: 1. The pain associated with every form of inflammation of the bone or of its periosteal covering is due to tension, and the severity of the pain is a fair measure of its intensity. 2. In acute inflammation of the bone or of its periosteum, tension is the chief cause of necrosis; and in the subacute and chronic forms it is a potent cause of their chronicity, as well as of the destructive changes which, as a rule, follow. 3. The relief of tension, wherever met with, when the result of inflammation, is an important principle

of practice which should always be followed. In bone the principle is most imperative, on account of the difficulties under which natural processes act in that direction, by reason of the absence of elasticity or yielding in bone, and by reason of the anatomical arrangements of its vessels which favor blood stasis. 4. To relieve tension in the softer tissues of the body, the local application of leeches, local or general venesection, acupuncture, aspiration, punctures, and incisions may be requisite; whereas, to carry out the same practice in endostitis or periostitis, subcutaneous or open incisions down to the bone, and the drilling, trephining, or laying open of bone by a saw may be required, the choice of method having to be determined by the requirement of the individual case. 5. In the early or hyperæmic stage of inflammation of bone, before destructive changes have taken place, experience seems clearly to indicate that the relief of tension—as indicated by a dull, aching pain, etc.—by means of drilling or trephining into bone, may arrest the progress of the disease, and help toward a cure by resolution; whereas, in the exceptional cases in which this good result does not take place, suffering is saved and destructive changes are limited. 6. In articular ostitis of every kind and variety and in every stage this mode of treatment can not be too strongly advocated, as tending toward the prevention of joint disease. 7. In acute or chronic abscess of bone, diaphyseal or epiphyseal, the abscess cavity must be opened as any other of the soft parts, drained, and dressed in the most appropriate way—the principles of treatment being the same in hard or soft tissues, although they are modified by the anatomical conditions of the parts."

SKIN DISEASES.—Dr. J. Clark M'Guire, of Louisville, in a paper on cutaneous diseases (*Am. Pract. and News*), writes very highly of the use of *fixed adhesive dressings*. He uses liquor gutta-percha (traumaticine), and the plaster mulls introduced by Prof. Unna, of Hamburg. Liquor gutta-percha is best prepared by dissolving ten per cent. of the gutta-percha in chloroform. A clear liquid results, forming an artificial cuticle that will adapt itself to all the inequalities of the skin, and is easy of application. It may be rendered much less noticeable on the skin by adding a little carmine. The plaster mulls are prepared by spreading the plaster mass on muslin; the adhesive material is the oleate of aluminum, or the best India rubber, using as little as possible, not more than two to five grains to the square metre. Many medicinal substances are incorporated with the plaster, such as oxide of zinc ointment, tar, iodoform, icthyol, boric acid, salicylic acid, in fact nearly every drug we use in the topical application for the relief of cutaneous diseases. The plasters do not deteriorate from age. In making the applications, the scales and crusts should be removed if present, and the hairs cut or shaved off. It is best adapted to those cases where there is little exudation of serum, as in psoriasis, dry scaly eczema, rosacea, and certain circumscribed lesions as chloasma, the vegetable parasitic diseases, lupus vulgaris, etc.

IODOFORM IN HÆMOPTYSIS.—MM. Chauvin and Jovisenne give (*Prog. Méd. Pract.*) a short account of the action of iodoform in hæmoptysis, at first given with tannin, and later alone:—In the first six cases pills were given containing iodoform, ¾ gr., and tannin, 1½ gr. Sometimes the hæmoptysis stopped after two of these had been taken; in one severe case of advanced phthisis, as many as five were given *per diem* for three days before the bleeding ceased. In another patient, who had been in the habit of having eight or ten attacks of hæmoptysis in the year, which had been treated by large amounts of ergotine and morphine, three of the iodoform and tannin pills stopped the hæmoptysis four months ago, and there has been no recurrence since. In the three cases recorded in detail, in which the iodoform alone was used, the results were very similar. The authors came to the conclusion that gr. ij. of iodoform *per diem*, in three pills, was an appropriate dose for moderately severe cases, and that more than eight or nine pills was not required in any case they had to deal with. This action they consider quicker than ergotine, and therefore more useful. In all the cases during the past year in which they had given it there has been no relapse, and, during the treatment, no disturbance of digestion.

CIRCUMCISION.—Dr. Norman Vogan, writing to *The Lancet*, says: As there is usually a great deal of trouble in the dressing after a circumcision in a child, perhaps a description of the method I

have lately adopted and found very successful may be of use to some of your readers, should you think it worth inserting in your widely read journal.

I pass a director under the prepuce as far as the corona glandis, and then pass a pointed curved bistoury along it, and divide the prepuce; then cut off the two triangular flaps thus formed, dividing the skin and mucous membrane together. All bleeding points are stopped by torsion. I use no sutures whatever, the skin and mucous membrane uniting quite well without any. I then guard the penis by a wire guard, similar to a vaccination shield, but larger and three-cornered, one corner passing under the scrotum, and the base being upwards. There is a tape attached to each upper corner to tie round the waist, and double tapes at the lower corner to tie round each leg. I use no dressing, but carbolised oil painted on the wound with a camel hair brush. The patient gets up the same day, or as soon as he feels quite recovered from the effects of the anæsthetic.

PLASTIC OPERATIONS FOR THE REPAIR OF NERVES.—The possibility of repair in nerves divided for even a considerable length of time, is now admitted. Sir William MacCormack, in a recent address delivered to the Midland Med. Soc. (*Brit. Med. Jour*), gave the following methods of treatment to be employed, the choice of method being determined by the circumstances of each case.

1. Transplantation into the gap of a piece of nerve taken from the same or another species of animal. 2. Uniting the peripheral end of the injured nerve to an adjacent uninjured nerve. 3. Cross union of two different adjacent nerves cut at different levels where union of the two portions of the same nerve was impossible. 4. Formation of a single or double pedunculated nerve-flap to bridge over the interval between the ends. 5. Encasing the two ends of the divided nerve in a bone drain which served as a means of fixation and also as a conducting medium for new nerve-fibres. 6. Sub-periosteal resection of a portion of the long bones of a limb to allow approximation and suture of the nerve-ends.

Return of sensation was obtained in favourable cases much earlier than formerly was thought possible, instances being given in which it had commenced after a very brief interval; the paths by which the impulses travelled being obviously along the old nerve-fibres in these cases, though for the most part, at any rate in case of long-standing separation of the nerve-ends, a development of new fibres was necessary for a successful result.

LECTURES ON CEREBRAL LOCALIZATION.—Dr. Osler, of Philadelphia, delivered three lectures on this subject at the Toronto School of Medicine, on the 22nd and 23rd ult. In lecture 1, he dwelt upon the development of the subject, particularly on its recent practical applications. The foundation of the doctrine on experimental and clinical evidence were reviewed and the motor centres were described and localized. The effects of irritative and destructive lesions were compared. In lecture 2, the sensory centres, as far as known, were considered, and the forms of aphasia briefly described. In lecture 3, the surface markings of the cortex were outlined, and the scope and limitations of cerebral surgery considered in relation to fractures, abscess, tumours, hæmorrhage, and epilepsy.

THE TEMPERATURE IN RELATION TO DIPHTHERIA.—It has been shown unmistakably (*Rep. Mich. State Board of Health*) that diphtheria unmistakably increases after the atmosphere is cold and dry, and decreases after the atmosphere is warm and moist. It is also shown that scarlet fever and small-pox are controlled in their rise and fall by the fall and rise of the temperature. Thus, though these diseases are due to the inhalation through the air-passages of a specific germ and are communicated from person to person, during the cold weather when the air-passages are most susceptible these diseases are most likely to spread.

THIRST IN INFANTS.—The following, from *Med. Classics*, is worthy of attention: It is a mistake to suppose that because milk is a liquid food it is at the same time a drink which is capable of satisfying the thirst of infants. Although milk appeases hunger, it makes thirst more intense after it has remained some time in the stomach and digestion of it has begun. It is thirst which causes healthy, breast-nourished infants to cry for long periods of time in many instances. There are many cases of indigestion due to weakness or insufficiency of the child's gastric juice, which

would be greatly benefitted or even cured if the child were allowed an occasional drink of water.

INTUBATION OF THE LARYNX.—It is said (*Western Med. Rep.*) that Prof. Thiersch has abandoned the operation of intubation of the larynx. He has given it a thorough trial, extending over a period of some months, but with no results, so that he has resumed his former treatment—tracheotomy, with which his percentage of recoveries is about fifty. He ascribes his lack of success, as compared with American surgeons, in the matter of intubation, to a different type of the disease, thinking that in his cases the membrane is thicker and tougher and the constitutional symptoms severer.

SULPHONAL AS A HYPNOTIC.—Prof. Rosenbach, Breslau, after experimenting with sulphonal, comes to the following conclusions: 1st. That sulphonal, in doses of one gramme (15 grains), is an uncertain hypnotic. 2nd. That, in two gramme doses, sulphonal is a certain hypnotic, which fails only in the rarest cases; there are no unpleasant symptoms following its use. Rosin's general conclusion is, sulphonal, in doses of two grammes, is a hypnotic not inferior to morphine, chloral, and others, and, by reason of its freedom from injurious after-effects, even when four grammes are given, is to be recommended in all uncomplicated cases of insomnia.

PROPHYLACTIC TREATMENT OF HYDROPHOBIA.—Dr. J. T. Bright reports the prophylactic treatment of six persons bitten by dogs known to be mad, in the *Am. Pract. and News.* He kept the blood alkaline for three weeks by administering internally either carbonate of ammonia in seven to ten grain doses every two hours, or acetate of potassium in twenty grain doses every two hours, and by applying cotton saturated with aqua ammonia. When last heard from all of them were perfectly well. He thinks this eclipses Pasteur.

HYMEN UNRUPTURED AFTER LABOR AT FULL TERM.—Mr. Taylor reports a case (*Brit. Med. Jour.*) in which a woman was delivered of a child at full term and the hymen was left intact. He thinks the case very interesting from a medico-legal point of view, as illustrating cases in which the non-rupture of the hymen should not be taken as a sign of non-intercourse, rape, etc.

TO REMOVE FOREIGN BODIES FROM THE THROAT.—Dr. Beveridge, of the British Navy, says that for the removal of foreign bodies in the throat, such as pieces of meat, etc., a simple mode of relief is to blow forcibly into the ear. This excites powerful reflex action, during which the foreign body is expelled from the trachea. The plan is so easy of execution that, if there is anything in it, it ought to be generally known and applied.

THE LATE OPERATION AT THE GOVERNMENT HOUSE.—It is a matter of sincere congratulation to the profession of Canada that the operation lately performed by Dr. Grasett, at the Government House, Toronto, was, in every respect, successful. Drs. Temple, Strange and O'Reilly assisted. The case was one of multilocular ovarian cyst and was uncomplicated.

THE *Med. Register* gives the following prescriptions in different forms of dyspepsia:—

For dyspepsia accompanied with palpitations (Mac Robin)—

℞.—Tinct. cardamom. comp., . 8 gram.
Spts. ammon. aromat., . 8 "
Sodii. bicarbon., . . . 4 "
Infus. gentian. . . . 180 " —M.

For flatulent dyspepsia (Heligan)—

℞.—Spts. æther comp.,
Aq. camphor, . . . āā 30 gram.
Tinct. cardamom. comp., . 8 " —M.

Sig.—To be taken at one time, and repeated if necessary.

ANTIPYRIN IN SEA-SICKNESS.—Dr. William Goodell, of Philadelphia, writes to the *Med. Rec.*, showing from personal experience and observation that while antipyrin does not actually cure sea-sickness, it greatly alleviates the sufferings of those who habitually suffer on an ocean voyage, and materially lessens the unpleasant sequelæ, such as headache, nausea and pains in the bowels, which so frequently linger on for a considerably time after the acute stage is past.

THE celebrated Dr. Heinrich Von Bamberger, of Vienna, died on the 9th ult.

SIR WILLIAM JENNER has resigned the membership of the British Medical Association.

## Books and Pamphlets.

HUNTERIAN LECTURES ON TENSION as met with in Surgical Practice, Inflammation of Bone, and in Cranial and Intracranial Injuries. Delivered before the R. C. S. Eng., June, 1888, by Thomas Bryant, F.R.C.S.E. London: J. & A. Churchill; Toronto: Carveth & Co. 1888; pp. 146.

The profession generally is perhaps aware that Mr. Bryant has long held ideas upon inflammation that do not agree with those held by many other observers. However that may be, he has in the present work given a very clear exposition of the subject of tension. To say more of an address delivered to so august and learned a body of men as constitute the Royal College of Surgeons of England, by so learned and practical a man as Mr. Bryant, would be superfluous. The lectures are well printed and should be of great interest to all practising surgeons.

THE LIFE INSURANCE EXAMINER: A Practical Treatise upon Medical Examination for Life Insurance. By Charles F. Stillman, M.D.; pp. 187. Illustrated. 1888. New York: The Spectator Co; Toronto: Carveth & Co.

The position occupied by Dr. Stillman, as Examiner to the largest and one of the oldest American Life Insurance Companies, should give the book a wide popularity. It embodies the experience of this company during a period of over forty years. There have been also many good points taken from the experience of numerous other companies. The author has spared no pains to make the book what it is intended to be, a complete guide to the medical examiner in giving the home office the information necessary to the acceptance or rejection of a candidate for insurance. We heartily commend it to all medical men who act as Examiners for Life Companies.

A MANUAL OF GENERAL PATHOLOGY: Designed as an Introduction to the Practice of Medicine. By Joseph Frank Payne, M.D., Oxon., F.R.C.P., etc. Profusely illustrated; pp. 522. Philadelphia: Lea Brothers & Co., 1888. Toronto: Vannevar & Co $3.50.

The author intends this work as an introduction to general pathology, including general pathological anatomy. It differs from most similar works, in not differentiating strictly between these subjects and special pathology. The amount of pathological histology is small, the author believing that too much attention has been given to forms of cells, etc., and that science will be better served by giving the student a broader conception of the subject. The etiology of disease has been taken up at greater length than is common in most works on the subject, and in this we think a real advance in the teaching power of the book has been made. It is also noticeable, that what may be termed medical pathology, has been discussed at more length than has surgical, because, says the writer, the surgical side has received, in this country perhaps, a disproportionate share of attention. The illustrations are exceedingly good, and many of them original.

BROWN'S MEDICAL DIAGNOSIS—A Manual of Clinical Methods, by J. Graham Brown, M.D., Fellow of the Royal College of Physicians of Edinburgh, Late Senior President of the Royal Medical Society of Edinburgh. Second edition, illustrated. New York: E. B. Treat & Co.; Toronto: Vannevar & Co. 1888. pp. 285; $2.75,

This last number of Treat's Medical Classics is perhaps the best of the whole series, although other excellent ones have appeared. It will be a boon to both students and practitioners. The work deals with the subjects under discussion in a very clear and complete manner. We heartily commend it to teachers, practitioners and students.

ESSENTIALS OF THE PHYSICAL DIAGNOSIS OF THORACIC DISEASES. By E. Darwin Hudson, Jr., A.M, M.D.; Prof. of General Medicine and Diseases of the Chest in the New York Polyclinic, etc. New York: Styles & Cook; paper, pp. 63.

This work was prepared for the use of the physicians in the class of General Medicine and Diseases of the Chest of the New York Polyclinic. It contains much useful information, well arranged and in a small space.

## Births, Marriages and Deaths.

On Sunday, Dec. 2nd, 1888, the wife of T. H. Stark, M.D., Toronto, of a daughter.

At Toronto, on Dec 4th, Dr. J. E. Elliott, to Jennie, eldest daughter of Warring Kennedy, Esq., all of Toronto.

At Toronto, on Nov. 28th, Dr. W. A. Young, to Annie Marguerite, only daughter of James Jennings, Esq., all of Toronto.