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Original Communications.

Address to the Graduates in Medicine of the University of Bishop's College, delivered at the Annual Convocation of the University, June 24th, 1875. By FRANCIS WAYLAND CAMPBELL, A.M., M.D., L.R.C.P., London, Professor of Physiology.

MY LORD,

HONORABLE CHANCELLOR,

LADIES AND GENTLEMEN,

GRADUATES IN MEDICINE,

On behalf of the Medical Faculty of this University, allow me to offer you their warm congratulations upon the auspicious termination of your collegiate career. The Honorable Chancellor has just conferred upon you the Degree of Master in Surgery and Doctor of Medicine, and you now stand before the world as duly qualified members of a great and noble profession. This occasion, long looked forward to, is full of interest not alone to you, but to all who take an interest in Medical education. To-day your term of pupilage is ended, and well remembering the time when I stood in a like position I can appreciate the load which has fallen from your shoulders, and the buoyancy of your spirits, as you stand upon the threshold of your professional career, and look forward with the hope and the enthusiasm of youth into the unrevealed future. To-day a new life is opening before you, and as you stand upon the brink of that river upon whose distant shore are gathered the promises and the rewards of the future, let us for a moment pause, and calmly survey the scene. The profession which you have chosen as the future occupation of your life requires no elogium from me. It came into existence because it was a necessity, and it has ever since its birth been fostered and cared for by the good, the learned, the benevolent of every age. Gentlemen, the inception of our profession dates long ages back. I fear we seldom think of the great honor which you and I have in belonging to a profession which is so ancient, and which has a pedigree of which perhaps no other profession can boast. Hippocrates the father of Medicine, was born 500 years before the Christian era, and the brilliancy of his intellect was such that, though living at a time when Ancient Greece was in her period of greatest refinement, and standing, as he did, side by side with Socrates and Plato—names which will ever shed lustre on their time—his has come down to us with a veneration which century upon century has not effaced. Is not this an ancestry to boast of? Have you then thought of the great responsibility which is imposed upon you, now that you are numbered among its members. The human body "*fearfully and wonderfully made*" is henceforth to be the object of your constant care and continued study. From morn till evening, and often during the still watches of the night, the sick chamber will make demands upon you. Within its precincts you will, if faithful to your duty, meet with triumphs which will cheer and encourage you; you will also meet with failures—be prepared for them, and not cast down. Ever bear in mind that your skill is human, and that we have to admit the fact, that there are diseases which as yet yield not to the Physician's skill. The science of medicine has not, as yet, in all its numerous branches and departments, reached absolute perfection; in a word, we cannot call it an exact science. Yet the rapid progress which has taken place in our profession during the present century, leads us to entertain the hope that in time the Physician will be able to deal successfully with diseases which we are now forced to pronounce incurable. The human body, with its complex and yet most perfect machinery, has during the past four years been the subject of your investigation. In health, and in its action under disease, you have witnessed those apparently numberless phenomena, which it is capable of exhibiting; and now, believing in your ability to deal scientifically with the various derangements which may occur to it, we send you forth, attesting to your competency by the seal of this University. The charge which has now been entrusted to you is one of the most serious which can be placed in the hands of mortal man. Henceforth your pathway will lie amid scenes of suffering and of death, and you will often be called upon to face disease in its most deadly, and its most loathsome forms. When the atmosphere is heavy with germs of disease—when universal panic extends over the land—you will I doubt not be found—as our profession ever has been found—true and steadfast in the performance of your duty. For in a time of peril, when disease is cutting down the strong and the vigorous all around you, to you the public will look for cheering influence, for hope and for life. At such a time you will require much to sustain you, and the thought that you are humble instruments in the hands of the great Physician will, I doubt not, give you strength for the contest. Often when tired and exhausted nature is demanding the repose necessary for its recuperation, your bell will summon you to the post of danger—not alone to your patient but danger to yourself. Unlike the soldier who leaves his home for the field of battle amid the shouts and the huzzas of a sympathising populace, and who re-

turning crowned with the victorious wreath, receives the plaudits of the nation—your departure to your post of danger is not accompanied by any such stimulants to exertion, nor are your victories—sometimes dearly won—proclaimed to the world through the medium of the newspaper press. The banners of our profession have emblazoned on them many illustrations of heroism as great as ever soldier showed upon the field of battle. Those of you who have walked the wards of the Montreal General Hospital will have noticed chiseled in marble on the walls of its entrance hall the names of Loedel and Caldwell, who, the record tells us, fell, while bravely battling with an epidemic—typhus fever—which some years ago swept over our city. Have they died in vain, or has not their noble sacrifice of self, stimulated during the past thirty years, a host of students who, reading the record of their death at the post of duty, have felt that these men, although dead, yet speak. A few years ago, and that terrible scourge of the Southern States of the American republic—yellow fever—broke out at Norfolk, Virginia, and the contest was far beyond the power of the medical men of the place to grapple with. Volunteers were called for, and were not wanting. Numbers of medical men rushed to the scene, and at once threw themselves into the struggle. It was a terrible one, and when the victory was won, and the casualties counted, it was found that forty medical men had fallen victims to the epidemic they had labored to resist. They have not died in vain. Faithfully they fulfilled the sacred duties of their calling, and their memories remain an imperishable legacy to the profession they have ennobled and adorned. Gentlemen, I have drawn no fancy picture, but selected incidents of no uncommon occurrence, among the ranks of our profession, and they well illustrate its moral grandeur At the very outset of your professional career, you will meet with difficulties, so I pray you be prepared for them; nor will trials and disappointments be unfamiliar to you. It has been truly said that there is no royal road to learning, and there most certainly is no such avenue, in the vast majority of instances, along which the Physician can swiftly glide into practice. I think it well it is so, for it gives the young practitioner time to well digest—if I may be allowed to use the word—those cases which come under his care, and which, from want of experience, he would, if hurried by press of work, certainly fail to do justice to. Rapidity of diagnosis—the art of naming disease—which in some is remarkable, can only be acquired by years of patient investigation. Be satisfied therefore, and bide your time. Do not depend upon friends, however, to press your claims upon the public. Be content to rely upon your own exertions, let your manhood assert itself, and take my word for it, patient industry will in time bring its reward. Do not I beg of you, gentlemen, follow the advice of those who perchance will advise you, *as they have advised* others—that the best way to get business in the medical profession is to put on the appearance of being overpowered by it. Do not have messages summon you from public worship, so that the eyes of the whole congregation may follow you as you pass down the aisle. Do not send messengers to the houses of your most influential friends, asking if you are there, and stating that your attendance is required at a most important case. Sir Dominick Corrigan, one of the most celebrated Irish Physicians of the present day, states that on commencing his career, and being entirely destitute of patients, a kind friend recommended him to take to driving hard in a carriage, particularly on wet and muddy days, so as to bespatter pedestrians, and endanger lives at crossings, and thus make every passer-by enquire who he was. Sir Dominick, however, says that the advice did not suit either his views or *his pocket*, and he at once thought of the lines applied to one of the profession who was reported to have so acted:

> "Thy nag's the leanest thing alive,
> "So very hard thou lov'st to drive;
> "I have heard thy anxious coachman say,
> "It cost thee more in whips than hay."

I am not visionary, gentlemen, in what I have just said, for you will doubtless be anxious to get on, and your friends will not be slow in giving you—what they are loath to accept from you—*advice*, and perchance it may be to act in some of the ways which I have just condemned. Do not be deceived by them, for rest assured there is but a single pathway to excellence and success in the Medical profession, and that is by steady hard study, and a patient waiting. It may seem hard to be thus kept down, while you are in the hey-day of your youth, and eager for work, but if you wish to retain and increase your hold on the community, among whom your lot may be cast, let your advancement be legitimate, and the result of an honest appreciation of your merits. Remember that there is no position which a medical man can fill to which you may not aspire, and let the thought that all the men in our profession who have risen to eminence have been working men cheer you. One of the most noted Physicians of London at this time was the son of a poor farmer, who tilled a small patch.

of ground belonging to Guy's Hospital. By his own intelligence, and steady hard work the son pushed his way, and to-day, as Sir James Paget, he is honored, not alone wherever the English language is spoken but wherever the influence of legitimate medicine is felt. It is true that it is not given to all to be Field Marshals, or Admirals, or Bishops, or Professors in Universities. In every sphere of life—in every profession—in every trade, there must ever be grades; but if you are ambitious, aim high and labour hard; if you apparently fail do not be discomfited, but try again. Ever remember that God helps those who help themselves. Remember also to succeed will require from you the most unceasing watchfulness; so that when the time to reap your reward arrives, you may be prepared to take advantage of it, for Shakespeare says, "there is a tide in the affairs of men, which, taken at the flood, leads on to fortune." If at last you find that you have reached the point beyond which you cannot pass, rest assured you are much the better off from the efforts which you have made. The difficulty of obtaining practice in the early years of professional life is not by any means confined to the medical profession. Our sister profession, the law, makes a like complaint, and, if some of the facts recorded of her greatest men be correct, with much justice. It is said of Blackstone, a name familiar to every law student, that during the first fourteen years of his professional career, he had but two briefs entrusted to him. His management of them, however, showed such care, that they formed the corner stone of that very great success to which he subsequently attained. Unlike the merchant or the mechanic, the professional man cannot advertise his claims to notice: for to do so would place him in direct opposition to that code of ethics which governs our profession throughout the civilized world. You must work patiently, and let me add hopefully, and if you do so I firmly believe you will in time have your reward. In your intercourse with your patients, you will find much that will try your patience and your temper. Guard them both well; keep a tight rein upon them, for sickness begets a snappishness of disposition, and very often an unreasonableness in the demands which will be made upon you. It will be your duty however, to study the whims and the caprices of your patients, no matter how unpalatable and irksome it often may be. Could I offer you no other reason, than as a means towards success, I would advise it; but surely out of your sympathising nature some will flow towards those whom an All-wise Providence has seen fit to afflict.

Into the sick room I beg of you to carry a cheerfulness of disposition, for, more perhaps than you will at first imagine, it will inspire confidence, and give to the patient a hopefulness in cases, even the most desperate. How much this can do in prolonging life, experience will soon teach you. In cases of an essentially chronic character, the value of a cheerful hope-inspiring physician is perhaps best seen. I know that the physician whose face ever lightens the darkness of a sick room can do a great deal to make sickness endurable.

Towards the fair sex, ever present a lofty, manly bearing. It would be folly in me to imagine that you have yet to learn to appreciate them; but, gentlemen, I mean no disparagement either to them or to you, when I say you have yet to learn their true value. It is in the sick chamber that woman brings into active play those wonderful attributes of gentleness which soothes the aching brow, and smoothes the pillow, when man's mortal frame is racked and tossed with pain. True indeed has Sir Walter Scott in his beautiful Marmion said:

> "O Woman! in thy hours of ease,
> Uncertain, coy, and hard to please,
> And variable as the shade
> By the light quivering aspen made;
> When pain and anguish wring the brow,
> A ministering angel thou!"

And now, gentlemen, what return may you anticipate from a firm adherence to the line of conduct I have marked out for you. I wish indeed that I could with truth say that you would always receive the gratitude of those whom you have benefited, but in truth I cannot, for gratitude is a commodity which I fear is somewhat scarce. It is indeed precious and highly to be prized when bestowed, but, as remarked lately by that eminent American Surgeon, Prof. Gross, "there is much less of it than is commonly imagined." Do not for a moment suppose that among your patients you will not meet with some who will always show a lively sense of your professional worth. But, on the other hand, be prepared to find services rendered by you, which no sordid coin can pay, treated with indifference. Want of success in treating diseases which are of necessity fatal, proving simply that you are not omnipotent, will often be the cause of much ingratitude and fault finding; those who act thus forgetting that your power is limited, and that it is appointed unto all men once to die. Do your duty manfully, hopefully, and leave the result in the hands of the All-wise disposer of events.

One point more, gentlemen, let me touch upon, and I shall have done. I have spoken of the nobility of

our profession, and of your conduct towards your patients: let me now say a word or two with regard to your conduct toward your professional brethren. A proper appreciation of this will, I assure you, do much, very much, to make your professional life a comfortable one. I can hardly conceive of anything so deserving of severe condemnation, as deliberately acting in a way which must re-act injuriously on a brother practitioner. Gentlemen, scorn to do a mean action; be honest, straightforward, upright, ever speak well of a confrère, and never attempt to heighten your own attainments by a deliberate attempt at proving him your inferior. Throw aside all narrow considerations, work willingly, heartily, with those who are laboring in the common vineyard with yourselves. Bring your information, your experience, into the common stock, and I am confident you will never regret having done so. Ever be ready to do a kind act for a professional brother, for you know not how soon he may be able to do one for you. Life is too short to engage in unseemly quarrels, and professional quarrels are unseemly I assure you. Avoid them, I beg of you.

A few short hours, and the small band of graduates now before me will have scattered, each going to his own sphere of labor. Believe me, gentlemen, the Medical Faculty of this University will watch your career with no common interest, and will rejoice most heartily when success lights upon your banners. On your part, gentlemen, I trust I may express the hope that, though separated by distance from the scene of your former labors, you will ever take a warm interest in the success of your Alma Mater. She has cherished and nourished you, and now, proud of your attainments, she sends you into the world to battle with disease and death. Work then while you are young, in the morning and vigor of your intellectual and physical powers; for to fold your arms in idleness is to stagnate and die. Work while it is day, for the night cometh when no man can work.

And now, brethren, members of our noble profession, go forth upon your high commission, and see that you blot not the fair escutcheon of your calling.

God grant that when your course shall have ended, your epitaph may be like that which is so touchingly described in the following lines, written by Jean Ingelow:

"So said, he raised, according to his vow,
On the green grass, where oft his townsfolk met
Under the shadow of a leafy bough
That leaned toward a singing rivulet,
A pure white stone whereon, like crown on brow,
The image of the vanished star was set:
And this was graven on the pure white stone,
In golden letters—WHILE SHE LIVED SHE SHONE!"

Progress of Medical Science.

PHTHISIS PULMONALIS.

BY FRANCIS DELAFIELD, M.D.,

LECTURER ON PATHOLOGICAL ANATOMY AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

GENTLEMEN:—We will now pass to the study of those lesions in the lungs which are usually classed together under the names of pulmonary phthisis, tuberculosis, or consumption. You are doubtless aware that much difference of opinion exists as to the real nature of these lesions, and you may even have been discouraged by reading the different views expressed in your text-books concerning them.

It is my wish to try to render the subject somewhat plainer to you, by stating as definitely as possible what the terms of the problem are which we are called upon to solve.

One of the first points which strikes us in our study of this question is that we have to deal with three distinct conditions—scrofula, tubercles, and inflammatory products. Let us, therefore, consider these three conditions separately, and then try to see how they are related to each other.

Of scrofula we see so little in this country that it is difficult for us to appreciate the prominent place it holds in the minds of physicians in European countries. It is a condition which is hardly susceptible of a definition, and yet it is not hard to understand what is meant by the term. It means this: When an individual acquires an inflammation of a mucous membrane, of the skin, of the joints, of the bones, of the genito-urinary apparatus, or of almost any part of the body, such an inflammation usually runs an acute course, and terminates in resolution, or in suppuration, or in the formation of organized new tissue. But if the inflammation, instead of doing this, simply reaches a certain point and stays there, and then, instead of resolving, or of suppurating, merely goes through a succession of degenerative changes such an inflammation is said to be scrofulous. The scrofulous inflammations have several well-marked characteristics. They are very slow in their progress; they are very rebellious to treatment; they are accompanied by an extensive cellular infiltration of the inflamed parts, so that when the degenerative changes ensue there is large destruction of tissue. The degeneration which occurs in the products of such a scrofulous inflammation is peculiar in its nature; it is commonly called cheesy degeneration, and consists in the transformation of the products of inflammation into a dry, yellow mass composed of amorphous granular matter. Examples of this form of inflammation will at once occur to you. Caries of the vertebræ, hip-joint disease, white swelling of the knee-joint, scrofulous orchitis, and enlarged lymphatic glands are all of frequent occurrence. Of the scrofulous inflammations of the skin and mucous membranes we see but little in New York.

You will see at once that such inflammations as these, running this peculiar course, can be explained

in two ways. We may say that a certain number of individuals are born with, or acquire the scrofulous diathesis—that they are scrofulous persons—and when any part of their bodies becomes inflamed, that in consequence of this scrofulous diathesis, the inflammation takes on the scrofulous character. Or we may hold that, just as we find croupous, or catarrhal, or suppurative inflammation occurring in different individuals, or in the same individuals at different times, so we may find the scrofulous inflammation; and that it is no more necessary to suppose a scrofulous diathesis than a suppurative or a catarrhal, or a croupous diathesis.

Our views on this subject can hardly fail to be influenced by our surroundings. In Germany or in France we see great numbers of persons, especially children, who at once strike us by their unhealthy appearance. We see that every inflammatory process set up in them takes on the scrofulous character. We see their faces scarred with scrofulous sores, their glands swollen, their bones destroyed, and it seems natural to class them all together as the victims of some constitutional disease.

In this country, however, our experience is somewhat different. We see indeed, a certain number of such unhealthy persons, but we also see the same scrofulous inflammations occurring in persons otherwise healthy. We see caries of the spine produced by injuries in healthy adults; we see healthy children attacked by hip-joint disease, recover from it, and go through a long life in perfect health; we see lymphatic glands pass through all the stages of scrofulous inflammation and degeneration without any permanent effect on the health of the patient. So here it is not unnatural for us to think it possible that this form of inflammation is merely one of the natural varieties of that process.

Two other questions concerning scrofulous inflammation are still to be considered: 1st. Are tubercles present in scrofulous inflammation? 2nd. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle.

1st Are tubercles present in all scrofulous inflammations? We find this question answered in four ways. Some hold that a scrofulous inflammation is really nothing but the infiltration of the affected part with tubercles. Some hold that there is first a formation of miliary tubercles, and that these become cheesy and are accompanied by inflammatory changes. Some hold that the process is simply an inflammation, succeeded by degeneration, and that no tubercles are present. Some hold that the process is an inflammatory one of a peculiar nature, resulting in the formation of a cellular tissue of low vitality, and that this process is identical in its nature with tuberculosis. It is easier to point out the defects in these different theories than it is to construct a better one. Probably the entire truth in this matter has not yet been reached.

2nd. Does the cheesy degeneration which accompanies scrofulous inflammation give rise to tubercle? This is a question which is now very generally answered in the affirmative—perhaps too hastily. This opinion has been formed in great measure from the results of experiments made on animals. We must therefore consider here the artificial inoculation of tubercle. Attempts to inoculate tubercle artificially were made at quite an early period.

TUBERCLES—INOCULATION.

History.—Kortum, 1789, Paris, rubbed fluid matter from a scrofulous ulcer into the neck of one boy, and inoculated another boy with the same matter, in the same place, but without results.

Hebréard, 1802, inoculated three dogs with matter, from scrofulous ulcers, but without results.

Salmade, 1805, inoculated a number of animals with scrofulous matter, but without results.

Lepelletier, 1810, inoculated four guinea-pigs but without result.

Cruveilhier, 1826, injected mercury into the trachea, arteries and veins of animals, and produced multiple abscesses, which he called tubercles.

Villemin, 1865, read his first memoir, giving his experiments with gray tubercles on rabbits, and concluding that tuberculosis is a specific affection, like syphilis, that it has its cause in an inoculable material, and that it can be easily inoculated on rabbits.

In 1866 he published his second memoir, and in 1868 his book on the same subject. He inoculated rabbits from men, from cows, and from other rabbits; also guinea-pigs, dogs, cats and sheep. In dogs and cats he obtained no well-marked results, in sheep no result. The matter which he used was gray tubercles from the lungs and serous membranes; the cheesy infiltrated matter from lungs, and the cheesy glands, sputa and blood of phthisical patients. With all these matters he obtained positive results. In the lungs, liver, spleen, and serous membranes of the animals inoculated he found numbers of small gray tumors, identical in appearance with the gray miliary tuberules of men.

In four cases he produced yellow, infiltrated partly softened cheesy lobules in the lungs, and in one case a cavity.

From these experiments he deduced the conclusion that tuberculosis is a specific, inoculated disease like syphilis; that gray and yellow, isolated and infiltrated are all of the same nature; that they have no specific anatomical elements, but that the proof of their nature is their inoculability.

Lebert, 1866, repeated Villemin's experiments on rabbits and guinea-pigs, and confirmed his conclusions. After this he went on to inoculate with miliary tubercles, cheesy infiltrated tubercles, cheesy lymphatic glands, portions of cancer, mercury and charcoal. From these experiments he concluded just the opposite. That tubercles are not specific nor inoculable. That they are simply the result of circumscribed inflammations; that they have no specific elements. In one case, in a guinea pig, inoculation of peritoneal granulations gave rise to cavities in the lungs.

Herard, 1867, inoculated four rabbits, two with gray granulations and two with cheesy infiltration. The first two succeeded, the second two did not, from

which he concluded that gray tubercles and cheesy infiltration were different.

Colin, 1867-1868, one of the commission appointed by the Paris Academy, made two reports embracing experiments on forty-six animals, rabbits, guinea-pigs, dogs and sheep. He deduced the following conclusions:

1. Inoculation of gray and yellow tubercular matter produces tubercles.

2. It is most probable that the tumors produced by inoculation are partly due to the material inoculated, and partly to the suppuration produced around the inoculated material.

3. The extent of the lesions produced is in proportion to the quantity of material inoculated.

4. It is the tubercular material itself and not any virus, which is taken up by the lymphatics and deposited in the different organs.

5. The deposits in the lungs, when they are firm, shining and semi-transparent, are certainly tubercular; when they are opaque and yellow, their nature is not so certain.

Behier, Pidoux, Vulpian, and Empis inoculated with various results.

Clark of London, 1867, produced gray tubercles in rabbits by inoculation with gray tubercles, and in two cases with non-tubercular matter.

Saunderson, 1868, produced gray tubercles in guinea-pigs, by inoculation with gray tubercles, pus, non-tubercular products, and by causing chronic suppuration with setoms.

Wilson Fox, 1868, inoculated 117 guinea-pigs, and 12 rabbits.

He inoculated gray tubercles; red, gray and cheesy hepatization, pus, sloughs from wounds, waxy liver, putrid muscle, and used setons. He produced miliary tubercles, in the lungs, bronchial glands, spleen, liver, omentum, and intestines. These tubercles were identical microscopically with those in man. Of 117 pigs 58 became tubercular and 6 doubtful.

Verga, Biffi and Mantegazza, 1868, in Italy, inoculoted rabbits with the same results.

Waldenburgh, 1869, Berlin, inoculated seventy-one rabbits and twenty eight guinea-pigs. He inoculated gray tubercles, cheesy glands extirpated during life, cheesy pus, gray tubercles, and cheesy glands preserved in alcohol, and catarrhal pharyngeal sputum treated with permanganate of potash. He also injected gray tubercles and inflamed glands rubbed up with aniline blue, and found the aniline in the miliary tubercles produced, in the white blood-globules and in some of the tissues.

He also inoculated a goat nine times with fresh matter and tissues preserved in alcohol. The animal's health was not affected, but tubercles were produced.

Most of the animals died of the disease. The tubercles produced were true gray miliary tubercles. They were found in the lungs, intestines, omentum, liver, spleen, kidneys, lymphatic glands.

Out of 100 animals thirty-four became tuberculous. He inferred that the tubercles were produced by the absorption of the fine particles of the inoculated matter, the circulation of these in the blood, their deposit in the different tissues, and their presence causing irritation and new growth.

Klebs injected tubercular matter into the abdominal cavity, and produced tubercles of the peritoneum and other organs. He regards the tubercles as formed in and propagated by the lymphatics.

Cohnheim and Frankel, 1868, inoculated by introducing into the abdominal cavities of rabbits and guinea-pigs portions of tubercle, of fresh and putrid tissues of all varieties, also pieces of India-rubber, of paper of lint, etc. The result of these procedures was always peritonitis. In many cases this killed the animals, in others the foreign body became encapsuled and was found surrounded by cheesy pus. In these cases miliary tubercles were found throughout the body. Cohnheim inferred that cheesy pus was the excitant of tubercle, and in proof of this he found that such cheesy pus, mixed with a solution of salt, filtered and injected into the blood vessels, produced tubercles in dogs.

All these experiments, therefore, which seemed at first to demonstrate that tubercles could be inoculated like small-pox, resulted in this conclusion. In certain animals—guinea-pigs, rabbits and dogs—if we excite inflammation by introducing under the skin or into the peritoneum any foreign substance, the inflammation thus produced will often assume the scrofulous character. If it does so, there is usually a collection of cheesy matter at the point where the inflammation was excited; near this the lymphatic glands will be enlarged, and in the lungs and other viscera we will find miliary tubercles. It seems to be a natural conclusion from this, that scrofulous inflammation with cheesy degeneration produces foci of cheesy matter; this cheesy matter is absorbed, infects the entire body, and thus produces miliary tubercles.

This doctrine was very soon applied to the tuberculosis of man. It is now very generally believed that in many cases miliary tubercles are the result of auto-inoculation from a cheesy focus. Thus Niemeyer says that patients with chronic cheesy pneumonia are always in danger of infecting themselves and becoming tuberculous. Rindfleisch says that tuberculosis in individuals who are not scrofulous is a thing unknown. Hueter lays down the rule that if we find a cheesy lymphatic gland in any part of the body, we must extirpate it at once to prevent tubercular infection.

You will find, however, that in this country there are some difficulties in the application of this doctrine. These difficulties seem to depend on the fact already mentioned that here scrofulous inflammations are less frequent and less extensive. It is impossible to ignore the fact that we meet with cases of general tuberculosis without cheesy foci; and that we meet with extensive cheesy deposits without tubercles. So that we may be permitted to doubt whether the law of the production of tubercles from self-inoculation with cheesy products is as absolute a one as has been stated.

II. Our next step must be to inquire what products of chronic inflammation do we meet with in the lungs? These products are all comprised under two heads—products of inflammation within the air cells and bron-

chi, and products of inflammation between and outside of the air cells and bronchi. We have already seen in studying pneumonia that there is a form of inflammation in which the air cells are filled with fibrin and large, nucleated cells of epithelial character, while the bronchi are filled with pus cells. This is one of the forms of pneumonia which we meet with in phthisis. We have also seen that there is another variety of inflammation affecting the interstitial connective tissue of the lungs, and called interstitial pneumonia. All the inflammatory products found in phthisis are due to the existence of one or both of these varieties of pneumonia.

What lesions do we find then in the lungs which are undoubtedly the results of inflammation ? the intra-alveolar pneumonia fills the air cells with fibrine and epithelium, and the bronchi with fibrine and pus. Wherever this takes place the lung becomes solid—hepatized. This hepatization is at first sometimes red, sometimes of a gelatinous, gray color. The absence of a first stage of red hepatization in some cases is due to the fact that the inflammation is from the commencement a chronic one, that it has no acute stage in which the blood-vessels are congested and the blood escapes. The products of inflammation thus formed frequently degenerate, then the hepatized lobules are of a more opaque gray color, or whiter, or yellow and cheesy. They may remain cheesy for an indefinite period, or they may calcify, or the walls of the air vesicles may be so compressed that they lose their vitality, become necrotic, soften, break down and form cavities. The same degenerative changes take place in the pus and fibrine which fill the small bronchi.

The extra alveolar or interstitial pneumonia results in the production of new fibrous tissue. This new tissue is sometimes dense and hard, composed of fibrillated connective tissue with few cells, sometimes is softer and looser, sometimes is composed of reticulate connective tissue. It resembles closely the new fibrous tissue which is produced in other parts of the body by chronic inflammation. This new tissue is found thickening the pulmonary pleura, surrounding the bronchi and blood-vessels, traversing the lung in broad bands, motilng it with large patches or with minute nodules. It is either white, gray, or black in color.

When in the same lung both the intra-alveolar and the extra-alveolar forms of pneumonia continue as a chronic disease for years, the inflammatory products which result modify each other and give rise to a great variety of lesions. It is these complicated lesions which it is so difficult to distinguish from tubercle. *New York Medical Record.*

INTERNAL HEMORRHOIDS.

* * * * The next case, Gentlemen, to which I will invite your attention, is one of hemorrhoids, or piles, as they are commonly termed. The man's history is the following :—

He is sixty years of age, and has suffered, he says, for thirty years with an enlargement or protrusion from the anus. During the last ten years these tumors have bled, and bled profusely. This aggravated hemorrhage has occurred every three or four weeks, but in the intervals there has always been more or less loss of blood. As a result of this constant drain, his constitution has suffered severely; he is weak and feeble, possesses no energy, and is unable, as he assures me, to earn his living. He has, therefore, sought the shelter of this Institution, in the hope of being cured.

Now before I proceed to the examination and treatment of this case, let me briefly explain to you the causes and pathology of this troublesome affection. In the first place, what are hemorrhoids? The derivation of the term is from the two Greek words Hæma, blood, and Reo, to flow, and signifies, therefore, literally, a flow or flux of blood. But all piles do not bleed; and they have therefore been variously subdivided at different times and by different writers.

In the first place, there is the classification into the " blind piles," hemorrhoides cecæ, and the " open or bleeding" pile, hemorrhoides apertæ, and these are the terms which have been largely employed by the older surgeons. Another classification, and perhaps the more common, is that into internal and external piles, according as the tumor is developed above or within, or below and external to the external sphincter ani muscle. The former, the internal pile, which is often accompanied by bleeding, corresponds with the open pile of the ancient surgeons.

And now let me say a few words relative to the character of a hemorrhoid. Essentially, hemorrhoids depend upon a varicose condition of the veins of the rectum, at all events, in their incipient stages. You know, perhaps, that the lower part of the rectum is supplied with blood through three channels; the superior, middle, and inferior hemorrhoidal arteries. The first named vessel is given off by the inferior mesenteric; the second by the internal iliac, and the last named by the internal pudic arteries. These different hemorrhoidal arteries are accompanied by their respective veins. As a consequence, the blood from the rectum finds its way back into the general circulation through three channels, to wit, the internal iliac, internal pudic, and inferior mesenteric trunks. The latter, as it ascends, pours its blood into the portal vein, and passes through the liver.

You will thus understand, I trust, how it happens that the superior hemorrhoidal vein, a vein of considerable length, destitute of valves, and entering into the composition of the portal system, may at any time be subjected to the general disturbing hepatic influences which tend to produce portal congestion. And you will also see how, such portal congestion having occurred, we may have interference exerted upon the return of the blood from the rectum through the medium of the superior hemorrhoidal, and its prolongation, the inferior mesenteric veins. This distribution of the rectal veins and arteries will be more clear, if you glance for a moment at this exaggerated diagram in colors, (demonstration made by the lecturer).

Now, Gentlemen, let us suppose that from any cause, whether portal dis turbance, the result of liver trouble, or from constipation, and the accumulated

fecal pressure upon the rectal veins, or from other causes, these veins should be kept permanently engorged or filled with blood, what would result? Inevitably there would be over-distension of the veins, accompanied at first by thinning and afterwards by hypertrophy of their walls. In other words, these veins would become varicose, and such varicosity would be most marked at their inferior termination, near the anus, where, as you observe in the diagram, the venous trunks inosculate freely, and form lips or pouches. That portion of the varix which forms above the sphincter ani, and which is covered by the mucous membrance of the gut, is known as the internal pile That which is developed below this muscle, and which has a muco-cutaneous covering, is the external pile.

In its incipient stage, the interior of the dilated or varicose vein is usually patulous, so as to permit the free passage or circulation of blood. In a short time, however, clots form, especially in the external pile. I shall doubtless have frequent occasion to show you how, by an incision of such a hemorrhoid, a clot can be evacuated from the containing cavity. It often, too, happens that these sacs suppurate and discharge their contents, and there are left only those pendulous folds of skin, tabs, as patients call them, which we so frequently observe fringing the external margin of the anus.

I have spoken to you, thus far, of a hemorrhoid as a varicosity or dilatation of a vein. But it may be, and most frequently, indeed, is something more, especially when the affection has been of long duration. For then we find that besides the distention of the walls of the vein, there is also thickening and hypertrophy, and that upon the outside of the venous parietes a thick, projecting velvety growth develops. This is well supplied with small arteries, which bleed freely when examined, and which bleed, too, most copiously, during the evacuation of the patient's bowels. Occasionally this hemorrhage occurs at almost every evacuation; but usually, I think, the bleeding is only severe at intervals of two or three weeks. In the interim there may be some bleeding, but generally far less in quantity, and often, indeed, sufficient only to constitute a stain.

The external pile inconveniences its possessor by the sense of weight, distention, and irritation which accompany it, and by its tendency to undergo attacks of acute inflammation. It is oftentimes, too, attended by an intolerable pruritus. The internal pile, in addition to most of the above-mentioned inconveniences is marked also by the bleeding from which it derives one of its synonoms, and which, as I have stated, is not infrequently periodical and prodigious.

With these preliminary remarks, let us proceed to the examination of the patient upon the table. Bearing in mind the long period during which he has labored under this distressing affection, you would naturally expect to find considerable structural lesions. To prepare him for this examination, and for any operation which may be necessary, I have caused his bowels to be freely acted upon by castor oil, followed by the employment of a full injection. He has also been directed to strain over a bucket of hot water, in order to force down the offending growths. Now, as I separate the buttocks, you observe the large size of the hemorrhoidal mass, projecting from above the external sphincter. Mark, if you please, its dark, villous appearance, and its extent of base embracing almost the entire circumference of the bowel. The surface of the tumor is studded with hemorrhagic points, and, as I press upon the mass, the blood flows freely. Underneath the pile you observe a projecting ring or fullness surrounding the anus. This is caused by a partial prolapse of the lower portion of the rectum, dependent, no doubt, on the long-continued habit of constipation into which the man has fallen; for he states that his bowels are rarely moved twice a week, often, indeed, but three times in two weeks. The removal of the hemorrhoid will doubtless relieve this prolapse.

The case is evidently a bad one, of internal or bleeding piles. Now, how shall I proceed to their cure?

Excision by the knife or scissors is out of the question. Such an attempt would certainly be followed by terrible bleeding. Removal by the ecraseur, or by a platina wire heated to a white heat by the galvano-cautery, are also objectionable, for both of these methods are, at times, apt to be followed by troublesome hemorrhage. So, also, is the destruction of the growth by the actual cautery, after the method of Dr. Henry Smith, of Kings's College, London.

The method which I adopt in all of these cases of internal piles, and which I confidently recommend to you, is that of ligation. If you follow me closely you will see how this is effected. The patient will now be brought under the influence of ether, and while this is being done, I will draw your attention to the modus operandi of the ligature in these cases. I have here a stout curved needle, with a large eye. This is armed with a strong double ligature, in fact a piece of fishing line, which cannot be broken by any strain my hands can put upon it. With this I intend to traverse the base of the tumor, and I shall then strangulate the mass in segments. It will at once occur to you that this procedure may be productive of great pain to the patient when he shall have emerged from the effects of the ether. Not so, if the ligature be properly applied.

In this diagram the mode of nerve distribution at the anal orifice is correctly represented. It is copied from Mr. Hilton's book on "Rest and Pain." You see here the internal pudic nerve sending a shower of branches from above downward through the thickness of the rectal walls. A little distance above the anus these nerve filaments rest *beneath* the mucous membrane, and they pierce this latter, to be distributed cutaneously on the line at which the mucous and cutaneous surfaces become continuous. This locality you can recognize in the living subject by a whitish line; see, here it is, on our patient.

He is now fully under the anæsthetic, and I proceed to my operation. First of all, I grasp the hemorrhoidal mass with this strong, toothed forceps, draw

it strongly downward, and have it so held by my assistant. I then take my scalpel and make an incision along the white muco-cutaneous line I have indicated to you. This incision is not deep, but is sufficient to divide the thickness of the mucous membrane, and consequently also the filaments of the pudic nerves just above their emergence. I next pass through a needle with its double ligature, the point entering in the cut I have made, and escaping above the hemorrhoid. I divide the ligature and remove the needle. The respective ends of the two ligatures are then tied, the upper one over the mucous surface of the pile whilst the lower one falls in the track I have made with my scalpel. I then surround the bases of both included masses with a thread from either ligature, and knot them very tightly. This I do to prevent any bleeding at the point of needle puncture. This series of manœuvres I repeat until the entire mass of the tumor is surrounded; in the patient before you three needles and five ligatures are demanded. You have witnessed how forcibly I tie the thread. Remember, that the more tightly you tie them the more perfect will be the stranulation, the less the danger of hemorrhage, and the more rapid the cure.

The operation is finished, the whole hemorrhoidal growth is strangulated—and you saw how large it was. I then return the mass within the bowel, leaving the free end of the ligatures twisted together and projecting through the anus, in case a possible hemorrhage might render further manipulation desirable, although this is hardly to be anticipated.

For after treatment I direct a one-grain old opium pill, to be repeated in four hours, and afterwards as often as may be necessary to prevent any motion of the bowels. His food will be of a fluid and farinaceous character. The constipation I enforce for seven or eight days, at the expiration of which time I order a more solid diet, which, in all probability, will be followed by a natural motion and the fall of the ligatures, unless they should separate earlier.—*Clinic of Dr. Brinton at Philadelphia Hospital.*

PREVENTION AND TREATMENT OF PUERPERAL DISEASES.

In the American Supplement to the *Obstetrical Journal of Great Britain and Ireland*, Dr. Wm. Gooddel discourses on these points so practically, that we cannot do better than give his own language. He says, speaking of the Preston Retreat:—

The wards are used invariably in rotation. By close management, and by crowding walking patients together, one of these wards in its turn stands idle for two or three weeks. During this time the doors and windows are kept open. Before it is again occupied by patients, the walls, floor, wood-work, and furniture, all of which are painted, are thoroughly scrubbed with carbolic acid soap, and then mepped over with a solution of half a pint of carbolic acid (Calvert's No. 4), to one pail of water. From this time until the ward is again vacated, no portion of it, not even the floor, unless accidentally soiled, is touched with water.

The nurses wear such clothing only as can be washed. As soon as the inmates of a ward are well enough to take care of themselves or one another, their nurse is relieved from duty. She now takes a soap bath, puts on an entire clean suit of clothes, and goes into a ward which has been thoroughly ventilated and cleansed. Before a new batch of patients fall to her care, she has had one week or more of rest. I visit the wards thrice daily, beginning always with the ward last occupied, and with the patient last delivered. Whenever a vaginal examination is needed it is put off until all the other patients have been seen. The examining finger is then anointed with an ointment containing carbolic acid, and the hands are afterwards washed with carbolic acid soap. Post mortem examinations I never perform.

The beds consist of a tick filled with fresh straw and covered with an army blanket. After the discharge of a patient, her bed is emptied, and the tick, blanket, and bedclothes are boiled in water to which a little carbolid acid has been added. Each bed is furnished with a feather bolster pillow, which are exposed on slats to the air when not in use. Once a year every bolster and pillow-tick in the house is washed and the feathers baked and "renovated," as it is technically termed. They also pass through the same process whenever soiled, or whenever used by a patient whose convalescence has been delayed.

The patients come chiefly from the poorer classes; but many in more comfortable circumstances, with the hope of getting better care, seek admission on account of some difficulty attending their former labors. On this account, the proportion of difficult labors is much above the average. Those patients who have families often put off coming in until labor has actually begun, and then leave at the earliest possible moment. Notwithstanding this, since patients have the privilege of remaining four weeks after their delivery, the average stay of each one is sixteen days before delivery, and eighteen days after. Every patient, upon admission, takes a warm bath, and at least one a week thereafter before her delivery. If she exhibits signs of feeble health, she is at once put upon the use of quinia, and of the mixture, consisting of two parts of the muriated tincture of iron, with three of dilute phosphoric acid. The habitual constipation of pregnancy is met by the administration, either in the morning of a teaspoonful of pulv. glycyrrhizæ comp. of the Prussian pharmacopœia; or, at bedtime, of four Lady Webster's pills (pil. stomachicæ). When a more active purge is needed, the pulv. jalapæ comp., or the pil. cathartic comp. (U. S. P.) is given. Headache and sleeplessness are treated by warm baths, by full doses of potassic bromide, and by the above-named medicines, when indicated: albuminuria is dealt with in pretty much the same way, but always with iron and phosphoric acid. The regular diet is plain and wholesome, yet more liberal than usual in charitable institutions. Apart from the frequent use of aperients, a relaxed condition of the bowels is promoted by serving table syrups at every meal, by fruits, fresh or dried, according to the season, and by all such vegetables as can

be eaten raw, viz., lettuce, cress, radishes, leeks, onions, tomatoes, cucumbers, and cabbages. Of these, in this latitude, an ample supply is obtainable during nine months of the year.

When a patient falls into labor, she first has her bowels moved by an injection, and then takes a warm bath. The bag of waters is usually ruptured artificially, and the liquor amnii collected in a grocer's scoop. The second stage of labor is never allowed to linger; any delay is met by the use, either of the vectis or of the forceps. As soon as possible after the birth and the removal of the child, the placenta is delivered by Credé's method. I may here remark that the still pulsating cord is first cut, then "stripped" of its blood, and as much as possible of gelatin, and finally tied, when it has ceased to bleed, and has become flaccid. Neither belly-band nor any kind of dressing is afterwards applied, but the cord freely dangles about from the navel. Treated in this manner, it dries up without any bad smell, and falls off like a ripe fruit, without leaving a raw stump. Out of more than five hundred infants treated thus, not one has had a pouting or sore navel requiring treatment, and not one has had an umbilical hernia. I am also well satisfied that, by dispensing with the belly-band, I have had fewer cases of inguinal hernia.

Ergot is hardly ever resorted to as an oxytocic; but one teaspoonful of the fluid extract is invariably given as soon as the head presses upon the perineum. When the labor is over, the perineum is examined, and, if torn, is at once sewed up with silver sutures. The patient is now washed clean, and a binder and cylindrical compress applied, the latter in the hollow just beyond the fundus of the womb. The bedstead on which she has been delivered is next wheeled from the Delivery Room to a ward and placed along the side of a bed, to which the woman now hitches herself over. Contrary to the generally held opinion that absolute rest after labor is indispensable, in no single instance has this muscular exertion apparently brought about a flooding. It seems rather to condense still further the uterine globe. Very rarely, indeed, has a flooding happened outside of the Delivery Room. However warm the weather, a blanket is thrown over the patient, and a foot warmer put to her feet. These remain until reaction sets in, and she asks to have them removed. A mug of beef-tea made from Liebig's extract is now given, and the child put to the breast as soon as it will take it. Thereafter, in a natural convalescence, the woman gets tea, boiled eggs, bread and butter, for breakfast; potatoes, and some kind of meat for dinner; stewed or fresh fruits, tea, bread and butter for supper. On the morning following the day of her labor, the binder is removed for good, and she slips into her chair while her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will; yet the force of example is so great, that very few care to stay in bed when they see their companions up and about.

No woman is allowed to suffer from after-pains. Whenever these are complained of, one-quarter grain doses of morphia are administered every hour until relief is obtained. In stubborn cases of after-pains I have found nothing act so promptly as the exhibition of ten grains of quinia every six hours, until the ears ring. Bed-pans are not employed, except in cases of illness, or in cases requiring vaginal injections; but each woman has her own chamber-pot, which she uses indifferently, either in the sitting or the knee-elbow posture. Every woman is required to wash her own person at least once a day, and that with carbolic acid soap and a wad of fine oakum, which is at once thrown away. Only under very exceptional circumstances does the nurse cleanse the patient. Should the lochia become offensive, the woman is made to get out of bed and slip in a chair three or four times a day. This usually corrects the fetor; but if it does not, then and only then is a solution of potassic permanganate thrown up into the vagina. Firmly believing the nozzle of a syringe to be the medium of virous communication from patient to patient, I avoid the use of vaginal injections as much as possible. For a like reason, the temperature thermometer is not habitually used, but only in single cases as an aid to diagnosis.

Whenever the lochia are offensive, or the pulse is over 90, or the thermometer indicates a temperature higher than natural, or pelvic pains are complained of, or, in short, whenever any untoward symptom appears, quinia is given in from six to ten-grain doses every four hours, until the ears ring. In addition, for abdominal pains large doses of morphia are given, and the whole belly is painted with iodine, and covered with a mush poultice. The canonical purge on the third day is dispensed with. A patient has usually a movement of the bowels either before or on the day in which she gets up for good. If this does not happen, she takes four Lady Webster's pills at bedtime, which then act on the morning of the sixth day. As soon after getting up, as she feels strong enough, she takes a warm bath.

But few words are needed to explain why the ordinary chamber-pots are used, and why patients are made, once or twice a day after the first, to get out of bed and slip into a chair. The presence of putrescent fluid in the utero-vaginal tract is recognized by all writers as the great cause of the autogenetic variety of puerperal disorders. But the recumbent posture of itself necessarily tends to detain these poisonous discharges in contact with the traumatic lestions of labor. These discharges may also be partly imprisoned in the vagina through the swollen condition of the more external soft parts, or partly corked up in the uterine cavity by the presence in the cervical canal of a putrid clot. In such cases detergent vaginal injections are highly recommended. But clinically they will be found of limited value; for they cannot reach high enough, and do not ordinarily dislodge a large clot even when situated low down. True intra-uterine injections are not open to one of these objections; but, apart from their being attended at best with some degree of hazard to the patient, the operation is too delicate a one to be

intrusted to a nurse. Besides, in hospital practice the nozzle of a syringe, to say nothing of the fingers of a nurse, is, I fear, so often one of the vehicles for the transmission of virus, as to make this means of disinfection of doubtful propriety. In a local outbreak of fever, especially of the diphtheritic form, I should, however, suggest the use immediately after labor, of vaginal injections containing the nitrate of silver or the persulphate of iron, in quantities large enough to sear over the traumatic lesions of labor. Such injections I have had no occasion to try, but, they ought to inhibit active absorption and promote healthy granulation.

ON THE PREVENTION OF MAMMARY ABSCESSES BY THE APPLICATION OF THE PRINCIPLE OF REST.

Dr. W. Bathurst Woodman read a paper on this subject before the Obstetrical Society of London (*Med. Times and Gaz.*, Jan. 16, 1875). He had been struck with the rarity of mammary abcesses in animals, notwithstanding the forced abstinence from suckling which cats and dogs undergo from the drowning of their progeny, and in spite of the great distension of the udders of cows, mares, and other animals when driven to market, or for other reasons separated from their young. Acting upon this suggestion, he carefully abstained from those manipulations and questionable "gentle" frictions which have so long been customary in such cases, and with the most satisfactory results. Where an abscess was threatening, in place of employing liniments he enjoined perfect rest, the avoidence of all frictions and rough handling, and of suckling for a time—if possible from both breasts, but at all events from the most implicated; the horizontal position, careful application of strips of isinglass, soap, or lead plaster, or of an air-cushion with a hole in the centre, or of bandages taking their purchase from the opposite shoulder. In addition to these measures he employed preparations of opium, belladonna, or chloroform, applied in compresses, or ice, moist warmth, and leeches; the local congestion being also relieved by diaphoretics, diuretics, and aperients—belladonna, iodide of potassium, and sedatives being given if requisite. Illustrative cases of this method of treatment were given, exemplifying its advantages.

Dr. Barnes observed that the principle of rest had long been applied to the treatment of inflammation of the breast. He himself had learned the value of it from Trousseau, when a student in Paris thirty years ago. That admirable physician taught and illustrated it with great earnestness. He placed the breast at perfect rest by carrying straps of leather spread with *emplateur de vigo*, all round it, so as to lift it well up and exert constant support on the vessels. Thus œdema was prevented, and engorgement soon subsided. It must, however, be remembered that this form of pressure was ill borne in the first inflammatory stage. It was chiefly serviceable when suppuration had taken place and the abscess had been opened; the sac then rapidly closed. In the earlier stage he had seen leeches do excellent service. The pressure then must be lighter.

Dr. Ashburton Thompson said there were two modes of treatment not referred to in this paper—the administration of tincture of aconite, and total abstention from fluids during the necessary number of days. By giving minum doses of aconite every hour he had succeeded in cutting short inflammations of the breast which there was no doubt would otherwise have run on to suppuration very frequently; indeed, in three cases out of four. In cases of stillbirth he had hitherto found abstention from fluids sufficient in every case to avoid every kind of mammary disturbance. Ice was allowed in moderate quantity, and no other fluid, from the time of delivery until the fourth or fifth day, when the breasts generally return to their normal state of quiescence. He had had two cases recently in which this method of treatment had been perfectly successful. The deprivation of fluid caused but little distress.

Dr. Braxton Hicks thought the principle of rest had been gradually coming upon us for years, friction only being resorted to among the poor and ill-educated. Surgery at the present day was all tending to quietude. Manipulations only led to suppuration, and often produced the extra amount of stimulation required to set it up.

Dr. Murray observed that the application of belladonna plaster was of great service, keeping the arm at the same time fastened to the side. In some instances a slight process of friction upwards was productive of good.

Dr. Matthews, whilst heartily assenting to Dr. Woodman's views, thought that the public also had largely endorsed his practice, since he had observed that it was a very common proceeding to apply a large lead plaster (spread upon leather) to the breast in cases where it becomes necessary to get rid of the milk; this of course rendered friction and all meddling impossible. He had found two large and suitable handkerchiefs suitably applied—one by way of sling across the neck under the breast, the other in exactly the reverse way, over the breast, and tied around the body so as to include the breast between them, interposing a large pad of cotton-wool—to constitute a very efficient mode of applying pressure.

Dr. Edis remarked that the chief thing to be remembered was to limit the supplies, to act on the bowels, and to insure perfect rest to the mammæ. He was accustomed to order a belladonna plaster to be applied to the mammary region within twenty-four hours of delivery, thus exercising pressure as well as arresting the secretion of milk. Abstinence from fluids and great moderation in diet were enjoined for the first few days, an aperient mixture of sulphate of magnesia and iodide of potassium being given twice or thrice daily to relieve the bowels. The shoulders should be raised, and the arms kept perfectly quiet; the upper part of the chest being only lightly covered; any friction or drawing of the breasts being strictly prohibited. Where this method had been adopted he had never seen a single instance of mammary abscess. An evaporating lotion continuously applied to the mammæ was in some

instances sufficient to prevent the secretion of milk; but the pressure obtained from the plaster was of great service, and effectually prevented the employment of any friction.

TREATMENT OF PROLAPSE OF THE UMBILICAL CORD.

Dr. G. J. Engelmann observes that there are cases of prolapse in which it is not desirable to leave the progress of the labor wholly to the powers of nature—cases in which interference is necessary, yet no indications for operation exist. Now the first and most simple assistance that can be rendered is to properly direct the patient's voluntary efforts; either, as the state of the case demands, keeping her quietly in one position, refraining from pressure with the abdominal muscles, or, when labor is far advanced, to encourage her to aid the passage of the head by the exertion of all her energies. 1. Postural treatment.—Equally simple, and on that account neglected probably in clinical teaching as well as in the text-books, is the treatment by position, which is a valuable aid to the practitioner. It consists in placing the patient on the side opposite to that on which the funis has prolapsed, so that the cord may be relieved from pressure, when it may perhaps glide back into the cavity of the womb. When the prolapse takes place in one or the other sacro-iliac fossæ, the patient should be placed on her hands and knees, in the elbow-position. This position, however, is unfortunately very tiresome, and if too fatiguing, the patient must be placed in the corresponding side position, on the left side if the cord has prolapsed into the right sacro-iliac fossa. Dr. Engelmann has achieved good results by this method. Position alone, as Thomas some time ago remarked, will rarely if ever cause the return of the cord without the aid of manipulation, unless the bag of water is unbroken; and even then it may not. 2. Reposition of the cord.—The carrying back of the prolapsed loop into the cavity of the womb beyond the presenting part is a treatment that has been giving up as ineffective by some, whilst it is most warmly recommended by others. In Engelmann's cases reposition was accomplished in only seven of the eleven cases in which it was attempted; and though apparently successful in these seven cases, the cord not reappearing, only four of the children were saved. In the out-door department the results were but little better, reposition of the prolapse loop having been practiced in thirty-two cases, and, notwithstanding that the operation seemed to have succeeded in twenty-six of these, not more than sixteen children were saved— in fact, by reposition of the cord alone only thirteen, as delivery was hastened by operation in three other cases. The life of the child was saved in fifty per cent. of the cases in which reposition was apparently successful, and in forty per cent. of all the cases in which it was attempted: and as was only resorted to in more favorable cases, with well pulsating cord and normal pelvis, the plan does not seem to afford much encouragement. Reposition is justifiable in many cases, but it has its strictly defined indications. With few exceptions, it must be confined to cases of prolapse with head presentations, as it is only with the rounded and resistant head that, when the loop has been carried back beyond its greatest circumference, the uterus can by its contraction prevent the immediate return of the prolapse. Not unfrequently a life is lost by too obstinate adherence to this method of treatment, the continued pressure and traction required proving fatal to the child; and in the same way, even when apparently successful, pressure at a higher point may have arrested the circulation in it. It should only be undertaken when the os is so far dilated that the escape of the waters is no longer to be feared, that, in case of necessity, delivery by forceps or turning can be immediately resorted to. The best instrument for the purpose of reposition is Robertson's funis replacer, and when apparently accomplished the fœtal heart must be closely observed, as it is by this means alone that it can be ascertained that it has been really effected; the fœtal pulse becoming strong and regular, continuing so after several pains. 3. Anæsthesia.—The use of chloroform was frequently resorted to, and proved a valuable adjuvant in achieving reposition of the cord. 4. Forceps.—The forceps were resorted to about as often as the reposition of the cord. In fifteen of the thirty cases in which it was applied the child was saved. 5. Extraction by the feet.—Extraction by the feet, simply not following version, was practised in sixty-five cases, in forty-seven of which (72.3 per cent.) a living child was developed. The success naturally depends upon the favorable prognosis offered by breech-first labors, in which alone it can be resorted to, and the treatment is mainly a postural one. Extraction by the feet was practised in fourteen of the lying-in house cases, and in only one was the child delivered dead, putrid—a case which should justly be excluded. The results were less favorable in the out-door cases, the accoucheur not unfrequently being called in too late. The patient should be so placed that a return of the presenting loop may be facilitated, all muscular strain must be avoided, the membranes must, if at all possible, be preserved intact until the os is sufficiently dilated, and when this is the case, the parts being yielding, we must not wait for threatened signs on the part of the fœtal pulse, but at once deliver by version. The operation which was most frequently resorted to and which proved, comparatively speaking, most successful, was turning by the feet immediately followed by extraction. Of the 125 cases so operated on, seventy-two were favorable, 57.6 per cent. of the children were saved; and this result holds good not only for transverse and shoulder presentations, but also for head presentations. 7. Cephalotrity.—Craniotomy can certainly not be classed among the operations called for by prolapse of the funis, yet Engelmann makes mention of this operation, as it was so often necessitated for preservation of the mother, and as the large number of these operations, twenty-five amongst 365 deliveries, complicated

with prolapse of the cord, most forcibly proves the frequency of the highly contracted and this distorted pelvis as cause of the prolapse.—*American Journal of Obstetrics.*

TWO CASES OF INOCULATION WITH THE SEPTIC LOCHIA OF PUERPERAL WOMEN.

BY WILLIAM STEWART, L.R.C.P. EDIN., BARNSLEY.

The elucidation of the nature of the poison and the etiology of puerperal septicæmia is of such vital importance, and, at the present time, occupies such a prominent place in the mind of the profession, that I feel no apology is required from me for bringing under the notice of the profession the two following cases.

CASE 1. Miss G., aged 52, a delicate woman, frequently suffering from hepatic derangement, and the subject of an obscure internal abdominal tumour, said to have followed an injury from a railway accident, called me to see her on Sunday, October 8th, 1871. I found her suffering from most excruciating pain in the right forefinger. The pain was so agonising that I was led to inquire whether she had not scratched or injured it in any manner, when she informed me she had very slightly scratched that finger and the one next to it a few days previously. Upon remarking further that I was afraid she had received some poisonous matter into the scratch, she then remembered having given an injection to a lying-in woman on the evening of the 6th (about thirty-six hours before my visit), whose nurse was very inexperienced, and had neglected to change the patient for several days after delivery. I was informed by the medical gentleman in attendance upon the confinement, that his patient had peritonitis at the time. My patient had wrapped a piece of adhesive plaster round the middle finger, which was therefore quite unaffected, but unfortunately had left the scratch on the forefinger totally unprotected. Here, then, was the clue to the case, decomposing lochial discharge applied to the recent scratch. This case ran a most acute and rapid course. Thirty-six hours after the application of the septic matter, I saw the patient. The finger was then hard and undurated, but not much swollen. The back of the hand was very red and much enlarged. The inflamed lymphatics in red streaks could be seen passing up the forearm; and in twelve hours more, in spite of all measures adopted to arrest the advancing disease, the finger had mortified. The next day, her relatives being very anxious, I met in consultation two neighbouring medical gentlemen, who agreed with me as to the cause of her symptoms; but the gangrene continuing to spread soon involved the other fingers, hand and wrist, and was followed by a fatal termination on the 10th, being ninety hours from the application of the poison, and about forty-eight hours from the time when I first saw the case. Throughout the short course of illness, the general symptoms were those of high fever, persistent vomiting, and, towards the close, delirium.

CASE 11. The poison in this case was introduced from a puerperal patient in my own practice. Mrs. L., a primipara, was delivered by Dr. Heath, my assistant, on October 24th, 1874. Three days afterwards, symptoms of acute peritonitis set in, preceded by decomposition of the lochia and accompanied by profuse diarrhœa, and other symptoms of blood-poisoning. Injections of Condy's fluid into the uterus and vagina were used to disinfect the discharge. These were administered by Mrs. M. (her mother), who, on November 5th, two days before her daughter's death, had inflicted a slight wound with a table-knife over the first joint of her left thumb. The wound being slight, she did not consider it necessary to mention it, or to apply any dressing to the part, but continued to administer the injections without any protection to the thumb. On the 7th, I found her suffering from the most violent pain in the thumb, which was swollen and indurated; the wound was gaping and sloughy in appearance, the back of the hand red, shining, and erysipelatous. A free incision on the thumb above the wound, followed in a few days by another on the back of the hand, gave exit to a large quantity of pus, and relieved to a certain extent the severity of the symptoms; but the purulent affection seemed to travel along the cellular tissue of the forearm, which in turn had to be relieved by incision. The lymphatics were inflamed as high as the elbow, where there was a patch of erysipelas. This case terminated favorably in six weeks, leaving only the first joint of the thumb stiff.

These cases appear to me to be specially instructive; first, because of the danger to which attendants are exposed when it becomes necessary to give vaginal injections to puerperal patients. And I think it becomes the duty of the medical attendant to warn the nurses to take precautions not to allow the discharge to come into contact with any recent wound or abrasion of skin. Secondly, they are exceedingly interesting from their tendency to throw light upon the nature and production of puerperal septicæmia, as they show that the application of decomposing lochia alone to a recent scratch or wound has been sufficient of itself to produce gangrene of the part and death of the patient in the one case, and a very severe attack of phlegmonous erysipelas in the other, although no puerperal condition existed in either of the inoculated subjects. I think we may, therefore, draw the conclusion, that the passage of decomposing lochia over any abraded surface in the vaginal passage is sufficient to produce puerperal septicæmia without the importation of any other specific poison. In this manner, we may account for the disease attacking much more frequently primiparous cases, as the vagina and perinæum are much more likely to be slightly lacerated in those than in multiparæ. If it were possible to apply as effectually the antiseptic treatment to these cases as it is carried out by Professor Lister in surgical cases, I have little doubt that as good results would be obtained. Obstetricians too frequently begin to lock the door when the horse is stolen; we wait until there is evidence of decomposition having already taken place in the lochia before steps are taken to prevent or counteract the

danger. Cannot some antiseptic means be devised to be used from the time of delivery? I should be inclined to think that folds of antiseptic gauze instead of the ordinary napkin, and an antiseptic lotion for detergent purposes, would be of very great service, and might prove quite sufficient to prevent the setting in of putrefactive change in the discharge.—*British Medical Journal.*

OPHTHALMIA NEONATORUM.

By Jabez Hogg, Surgeon to the Royal Westminster Ophthalmic Hospital, &c.

A paragraph occupying a prominent place among "Notes on Current Topics," in the *Medical Press and Circular* of last week, taken from the *Boston Medical and Surgical Journal*, must not be passed over in silence, or it may be the means of inflicting considerable mischief on a class of the most helpless sufferers from eye diseases.

Dr. Derby, writing on Ophthalmia Neonatorum, says that "Dr. Williams, of Boston, stands almost alone in his condemnation of the use of nitrate of silver lotions in this complaint." This is by no means the fact; I am indeed inclined to think that Dr. Derby knows but little of the modern treatment of the ophthalmia of new-born infants, or he would not have hazarded such an assertion. At all events, he would have been aware that strong solutions of nitrate of silver are now placed among the bygone therapeutical agents of the ophthalmic practitioner, in not only ophthalmia neonatorum, but in most other eye affections. For my part, I cannot too severely denounce the mischievous treatment propounded by this gentleman, namely, that of daily applying a ten-grain solution of the nitrate, and if this be found inefficient then "the stick of nitrate of silver of Von Graefe, the *lapis mitigatus*, formed with twice the bulk of nitre to one of nitrate of silver." He goes on to say, "these are not dangerous remedies." On the contrary, I beg to warn your readers against such a mode of treating this affection, as it will generally be found to lead to grave complications that always aggravate the disease and retard or prolong the cure.

I can only gather from such statements as those just quoted that the ophthalmia of new-born infants is still, as in days gone by, looked upon by some practitioners as a purulent affection, the result of a direct specific inoculation, or application of puriform matter, gonorrhœal or leucorrhœal, to the eyes, during the passage of the head of the infant through the vagina, and consequently the disease must be met as in the old-fashioned heroic calomel and bleeding days. My experience of these cases tells me this is a great mistake, for even among the poor who crowd our hospitals only a small percentage of the cases can be directly traced to a previous gonorrhœa, and certainly among the middle classes it is quite an exceptional cause, and in a great many instances it appears to be a part of the dyscrasia of the mother, for I have been called upon to treat every infant born to the same mother on the third or fourth day after birth. The disease at the outset is nearly always a simple catarrhal affection, the result of some cold or atmospherical influence. The close and unwholesome air of the sick-room of the poor, and in which they are too often obliged to live and sleep, may often be the cause, or, as Dr. Mackenzie pointed out, it may be due to want of care in washing the infant—the careless intrusion of soap, or of whisky or gin, still absurdly enough often applied to the head "to keep the infant from taking cold." Ophthalmia neonatorum must be regarded in a vast proportion of cases as a catarrhal affection, requiring, if seen at the accession of the attack, the simplest remedies for its cure, the most important among which is strict attention to cleanliness, and the constant removal of the discharge from the eyes by the gentlest means as soon as it is secreted. The application of warm water alone, and when the secretion is profuse, followed by a very mild astringent collyrium, composed of alum, or a weak solution of the permanganate of potash, is all that we need apply. Should the case be neglected for a few days, and the papillæ of the palpebral surfaces and vessels of conjunctiva become swollen and injected, then a very weak solution of one or two grains of nitrate to the ounce may be occasionally instilled with advantage, but this should invariably be followed up immediately by the free application of cod-liver oil. At the same time, it is of the utmost importance to look to the quality of the mother's milk, and see that she is well nourished and properly cared for in every way. The administration of ten drops of cod-liver oil to the infant is often a valuable adjunct to the means employed. On the other hand, if by any chance the medical practitioner should be induced to resort to the application of strong lotions of nitrate of silver, or the more dangerous "solid stick" of *mitigated* destructives we must expect to see, in the majority of cases, the delicate epithelial and corneal layers quickly removed, and followed by chemosis and granular lids, or ulceration and opacity, with prolapse of the iris, and ultimate loss of sight.—*Dublin Medical Press.*

LOCAL TREATMENT OF LICHEN URTICATUS.

It will be agreed that there is a form of skin-disease specially affecting children, characterised by wheals, papules, and severe itching, worse at night, yet independent of discoverable parasite. It may be acute or chronic, is generally obstinate, liable to recur after intervals of relief, and is so distressing that it seems well to record good results obtained from combinations not in ordinary use. I refer to two ointments; one containing equal parts of calomel ointment and extract of belladonna; the other, storax, according to this, which is a recognised formula: ℞ Storacis oz. i; ceræ flavæ gr. 120; olei olivæ fl. oz. ss. Misce secundum artem. In illustration, I subjoin two cases out of twelve observed.

Case I (acute).—Ellen H., aged 16 months, had been weaned one month, when she got diarrhœa. Soon afterwards, she "came out all over like nettle-

stings"; and had severe itching, worse at night, and preventing sleep. She had had previous good health, and was fairly nourished. She was vaccinated at four months. She had eleven teeth, and one pressing; and was fed on milk. The rash now was of scattered papules on the trunk and limbs; wheals came out at times; the feet were free. The parents and other children were not at all affected.—October 12th. She was ordered to use one soft-soap bath, weak; then to rub in unguentum hydrargyri ammoniatum.—October 16th. The bath gave much pain; there was no relief. ℞ Unguenti hydragyri subchloridi, extracti belladonnæ, āā partes æquales. Signa: To be painted on night and morning. An oatmeal-bath was also ordered.—Oct. 21st. There was much relief. The urine was hot. A mxiture of acetate of potash was ordered.—October 30th. There was very much relief. She slept well.—November 6th. She was clear till yesterday, when some relapse occurred, which readily yielded to the same remedies.

Case II (chronic).—Albert P., aged 2¼ years, came under notice on August 10th, 1874. He had attended the Children's Hospital twelve months previously with an attack similar to the present. He had then suffered one week, and had been vaccinated in the week before that. He remained a patient for *five months*, when he got some relief, but was never quite free, and had been worse lately. The body and limbs were covered with scattered papules, which itched violently, worse at night. Sometimes a rash like "nettle-stings" came out. The hands and feet were free. The mother was cleanly; neither she nor her two other children had had any rash whatever. The child was well nourished and cared for. He got at first sulphur ointment and quinine mixture; on September 25th, rhubarb and magnesia mixture, and ammoniated mercurial ointment; and on October 9th, mixture of chlorate of potash, and carbolic acid ointment.—October 16th. Up to this date, there was no marked relief. Storax ointment was ordered to be applied night and morning.—October 30th. The mother reported much improvement from the time of commencing the last ointment; he had much better nights.—November 13th. Improvement continued. The child seemed well.

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TREATMENT OF HOOPING-COUGH.

Dr. Mascarel states (*Bulletin Gen. de Therapeutique*, June 30, 1874) that in his opinion hooping-cough depends on two elements—a nervous element and a catarrhal element. The nervous element resides in the inferior branches of the pneumogastric nerves. This is so true that there is a form of gastric hooping-cough in which every attack of coughing is accompanied by vomiting. The catarrhal element has its seat at the orifice of the glottis and of the larynx as well as through the whole extent of the mucous membrane, both aëril and digestive, receiving filaments from the two pneumogastrics, as is rendered evident by the masses of mucus of various kinds coughed up by children during and at the termination of their crises. If we once admit these two principles—a nervous element and a catarrhal element—we must act therapeutically against both; and as the nervous state is antecedent to the catarrhal state, we ought to act specially against the neurotic. Every morning between six and eight a minute does of tartarized antimony should be given in solution in water. In children over two years of age the antimony may be replaced by ipecacuanha. Every evening at the last meal a small pill may be given containing one-eighth of a grain of extract of belladonna, which may be gradually increased till five or six of the pills are taken at once. Dr. Mascarel has tried this plan for from eighteen to twenty years, and has hardly ever known it to fail in relieving or completely curing the disease in three weeks. The use of the belladonna should be gradually discontinued. An essential condition of success is to have the extract of belladonna pure, and one test of its purity is the appearance of a peculiar exanthema over the face and body of the child, which may so alarm the parents that it is prudent to forewarn them of its occurrence. This only appears, however, once in seven or eight cases, and its slight gravity is shown by its spontaneous disappearance in the course of a few hours. A second evidence of the goodness of the preparation is the dryness of the throat, which many of the older children complain of. Dilatation of the pupils is rarely observed, unless the remedy has been applied directly to the eyes. In cases where the cough is extremely violent and is accompanied by vomiting, when it may produce hernia and ecchymosis of the conjunctiva, the employment of emetics is contraindicated, and instead of them small doses of syrup of morphia, with a little ether may be given, the use of the belladonna being continued. After breakfast, a few teaspoonfuls of strong coffee may be given with advantage. Dr. Mascarel does not believe in the beneficial effects of change of air, as he has had cases under his care that have come from a distance, and in which, nevertheless, the disease pursued its course unaltered. — *Practitioner*, Aug. 1874.

INJECTION OF ERGOT FOR INTERNAL HEMORRHOIDS.

DR. ORR reported to the Cincinnati Academy of Medicine (*Clinic*, April 3, 1875) that he had lately made use of rectal injections of the fluid extract of ergot in two cases of internal hemorrhoids. He ordered a half drachm of the fluid extract to be thrown into the rectum together with one ounce of water daily. When he commenced the treatment the tumours were quite large, but within a few days disappeared entirely, as did also the symptoms produced by them.

Dr. Conner had also treated a case of internal hemorrhoids occurring in a woman in the manner described by the last speaker. She reports herself entirely relieved. He mentioned Langenbeck's suggestion that injections of ergotin be made with the hypodermic syringe and that it be thrown into the submucous connective tissue. Had employed the agent subcutaneously in two cases of varicocele with excellent results in one of these. In this one, but two injections were found necessary. The latter of the two was followed by an abscess, in connection with which the doctor mentioned the curious fact, that, although the injection was made on the left side, the abscess occurred on the right; he was certain that the septum had not been pierced by the needle. In the other case referred to, four or five injections had been made with no result whatever. He was inclined to attribute many of the failures following the use of ergot to unreliable preparations. In two cases of varix of the lower extremity, its employment was a perfect failure.

ON THE TREATMENT OF SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

Notes of a Lecture at the Harvard Medical School, by Charles E. Buckingham, M.D., Professor of Obstetrics.

With some obstetricians, the condition of the new-born child, compared with that of the mother, is of secondary consequence. I confess it is so in my estimation. This is a matter which depends upon the religious views of different individuals, and of course is not to be here discussed. Both the mother and the child require attention and you can oftentimes give directions for the benefit of the child while you are making the required pressure over the uterus which has just expelled it.

Sometimes the child cries lustily as soon as it is expelled. Sometimes it gasps feebly, with long intervals between its respirations, which may of themselves become more frequent and stronger, or less frequent and more feeble. It may come into the world blue and flabby, and without a visible sign of life. If there be beating of the umbilical cord, however, there will almost certainly be a gasp, and that gasp may be repeated; or if not repeated unaided, your assistance may restore the child to life. Even if there be no pulsation to be seen or to be felt, you may in some cases hear it by putting your ear over the heart. You need not trouble yourselves about a ligature upon the cord; make the child breathe. And for this end it is not worth while to spend time in trying the Marshall Hall method; you have a chest to deal with which has never been expanded, and a pair of lungs which have never been inflated. Send for a couple of pails of water, one cold and the other rather warmer than it would be comfortable to take an entire bath in. A child who has never breathed, if rapidly dipped in these alternately a few times will often cry audibly. But you must not wait for the pails of water before trying other measures to make the child breathe; if you do, it will be just so much neglect. With a dry rag over your little finger, thoroughly wipe the mucus from the fauces; that operation alone will make some children cry. Take the child up in a dry towel, or a pocket-handkerchief if you have one at hand, or in anything which will keep it from slipping from your grasp; hold it with the scapulæ in the palm of your left hand, the finger and thumb embracing the occiput, which should be firmly pressed backwards; the finger and thumb of the right hand should close its nostrils. Apply your mouth to that of the child and try to inflate its lungs; you need not fear that you will blow too hard; indeed, unless you place a moderately dry cloth between the child's mouth and your own, you will find it difficult to inflate at all. But why press the head forcibly backwards? Because in so doing you close the passage of the œsophagus; and should you neglect that precaution, you would find the stomach inflated instead of the lungs, and a new obstacle thus put in the way of the child's breathing, by your own carelessness.

You should inflate the lungs ten or fifteen times in a minute; and the process should be continued as long as there is the slightest possibility of life. The occasional alternate dipping will help your efforts. In some cases, a rapid and more forcible pulsation of the heart is felt by you upon your very first insufflation, and this, as a rule, will be repeated and increased in strength with every succeeding attempt, until as you take your lips away you will each time see the child gasp, open its eyes, heave its chest, and at last cry. The color, which has been leaden and dull, becomes of a positive red. The points upon which you placed your fingers, before the operation, became white, and remained so long enough for you to count twenty or more; but now the color returns more and more rapidly, and you will find, as the child's respirations become independent of your aid, that the color returns almost immediately on the removal of the pressure.

Be sure that all chance of life is gone before you stop your exertions; I have known an infant, who was laid aside in a sheet as dead by one of our profession, to live to adult age. So long as the breathless child is cool, if pulsation exists even to a slight degree, life is still possible. Excess of heat to such a child will diminish its chances for life. Why then, you may ask, do I dip it in hot water, as well as in cold, to make it breathe? Simply as a stimulant to its skin. It is not to be left in the hot water an instant; it is dipped in hot water for the same reason that I would spank it, or slap it with a wet towel, the object being to irritate its nervous system and make it cry.

If you will now simply wrap the resuscitated infant in a blanket, and leave him without washing or dressing or food for a few hours, he will be better off than if you weary him with further attentions.

Bicarbonate of Soda in Toothache.—Dr. Dyce Duckworth contributes a short memorandum on this subject to the London *Practitioner* for April. He was called on to treat a case of very severe

toothache, and tried various ordinary remedies, including chloroform and carbolic acid, without any benefit to the patient. He then remembered having read that the pain might be relieved by holding in the mouth a solution of bicarbonate of soda. He at once gave the patient half a drachm in an ounce of water, and, to his astonishment, the pain ceased immediately, and complete relief was secured. He thinks that, as the remedy is so simple and the disease so distressing and often intractable, this treatment may be worthy of notice and of imitation.

ON THE VALUE OF TAR IN BRONCHIAL CATARRH AND WINTER-COUGH.

BY SYDNEY RINGER, M.D.,
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WILLIAM MURRILL, L.R.C.P.

The frequent and popular use of this remedy, both by the profession and by the laity, in France and Belgium, led us to try its effects. Patients so susceptible to cold, that they were obliged to remain indoors the whole winter, informed us that this remedy curtailed considerably the duration and lessened the severity of their catarrhal attacks, and that, by an occasional recourse to the tar, they became less prone to catch cold, and could more freely expose themselves to the weather, without incurring an attack. It will be seen that our observations confirm these statements.

We employed tar in two-grain doses, made into a pill, every three or four hours. From October to January, inclusive, we carefully watched its effects on twenty-five patients, whose ages varied from 34 to 70, the average being 44. All these patients had suffered for several years from winter-cough, lasting the whole winter. They were out-patients, and visited the hospital weekly, or oftener. Most of them were much exposed to the weather, whilst some were so ill, that they were obliged to stop work, and, therefore, were less exposed.

These patients suffered from the symptoms common in winter-cough—paroxysmal and violent cough, the paroxysms lasting from two to ten minutes, and recurring ten to twelve times a day, and, in the night, breaking their rest. The expectoration, frothy and slightly purulent, was generally rather abundant, amounting in some cases to half-a-pint or more in the day. The breathing was very short on exertion, but most could lie down at night without propping. The physical signs showed a variable amount of emphysema, with sonorous and sibilant rhonchus, and occasionally a little bubbling rhonchus at the base.

These patients usually began to improve from the fourth to the seventh day; the improvement rapidly increased, and, in about three weeks, they were well enough to be discharged. The improvement was so decided, that the patients returned to their work; even those who in previous years had been confined to the house the whole winter. The cough and expectoration improved before the breathing. In several cases, the expectoration increased during the first three or four days; but its expulsion became easier, and, with the improvement in the cough and expectoration, appetite and strength returned.

On discontinuing the tar, a relapse often occurred in a week or two, and the patients returned with a request for more of the same medicine, and then, a second time, the symptoms quickly subsided. We found it useless in bronchial asthma, and its effects were more evident in cases where expectoration and cough were more marked than dyspnœa.

We have no doubt that tar is a good, useful, though, perhaps, not a striking, remedy in these troublesome affections; and certainly it is more efficacious than the drugs generally employed.

It may be remarked, that tar is useful in the same cases for which the spray of ipecacuanha wine is serviceable. The spray, we find, acts much more quickly, and, unlike tar, it lessens dyspnœa even before it improves cough or diminishes expectoration.

We have this year continued to carry on our observations with ipecacuanha wine spray, and with results confirmatory of the statements made in August last. We find, however, that some patients are very intolerant of ipecacuanha spray, which causes in them a good deal of irritation, and even tightness of breathing. It is advisable, therefore, at first to dilute the wine with one or two parts of water; a precaution especially needful for patients affected with much dyspnœa, with lividity; for the spray may for some hours much intensify the difficulty of breathing and lividity, so as to alarm the patient and friends.

It may be not much out of place to mention here that, in several cases, we have found the spray very serviceable in non-febrile inflammatory sore-throats, the mucous membrane being swollen and very red. We have found it useful, too, in hoarseness from congestion of the vocal cords. Where the hoarseness has lasted a few days only, or one or two weeks, the spray often speedily cures; but, where the hoarseness has persisted three months or longer, the spray even improves the voice considerably, but some hoarseness remains.—*British Medical Journal.*

THE USE OF QUINIA IN INFANTILE DISEASES, AND ESPECIALLY IN HOOPING-COUGH.

Dr. Rapmund, an essay on this subject (*Deutsche Klinik*, 1874, p. 164), remarks that quinia and and cold affusions are the remedies which posses the most certain and energetic antipyretic properties. Both are particularly useful in country practice, when the practitioner cannot have recourse to therapeutic agents of too complicated a character, partly on account of the difficulty of seeing his derections properly carried out, and partly on account of the stupidity of the patients. The chief objections to quinia are it cost and extreme bitterness. Its power over febrile affections is, however, very great. In 1872. Hagenbach, in the *Annales de Thérapeutique*

Infantile, demonstrated that quinia acts not only in in lowering the temperature and moderating the frequency of the pulse, but in shortening the period of convalescence. It is at once, he maintained, an natipyretic and a tonic. His observations were made on children arrived at the period of second dentition. Dr. Rapmund, on the other hand, chiefly observed its effects in much younger children, some being still at the breast. He administered quinia in four cases of scarlet fever, eleven cases of measles, two cases of smallpox, three of erysipelas, nine cases of lobular pneumonia, and three of follicular enteritis. Country practitioners know very well that paients do not send for medical advice in the ordinary exanthemata unless serious symptoms appear, In such cases he speaks in terms of praise of the immedite administration of quinia. Previouly to its being given, the child has often been in his practice excited, sleepless, delirious, and the cause of great alarm to the relatives. But as soon as a sufficient dose had been taken, the temperature and the frequency of the pulse fell, and the children enjoyed a calm and prolonged sleep. This hypnotic effect is of the greatest importance in children, enabling them to recover their powers during repose. Its value has been particularly insisted upon by Profession Jurgensen in respect to the treatment of croupal pneumonia. Quinia has also a marked influence in rendering the march of febrile diseases benign. Vogel, in the *Dictionnaire des Maladies de l'Enfance*, has recently declared that quinia is the only remedy that has succeeded in his hands in erratic erysipelas; and Dr. Rapmund has been equally succesful. The dose was about two or three grains per diem. The strength of the patient must be kept up, especially when the erysipelas spreads. The affection in which quinia is serviceable *par excellence* is the lobular pneumonia of infants, and Dr. Rapmund prides himself on having obtained seven successes out of nine cases. In this disease death supervenes in consequence of cardiac insufficiency due to the violence of the fever, and it is obvious that quinia is exactly adapted to conteract this condition. When the extremities are pale and cold and cyanosis has set in, quinia is useless; but in a less advanced stage, when the febrile symptoms are acute and the temperture and pulse are much above the normal, quinia is formally indicated, and under its influence not only does the fever diminish, but the thoracic symptoms improve. The number of respirations, which often rise to eighty per minute, falls to thirty or less; the nostrils cease to dilate, the contractions of the diaphragm become less painful, and the child becomes calm. In cases of hooping-cough quinia appears to diminish the violence of the attack, and better rest is obtained at nigkt: and it appears to prevent complications, and to render the course of the disease much more uniform and benign. Children should be well supported either by means of milk or by beef-tea. In very feeble infants, small quantities of wine may be administered. In regard to follicular enteritis, careful treatment with a wet nurse is essential, and quinia is a valuable adjuvant. When from any cause quinia cannot be taken by the mouth, it may advantageously be administered in the form of a clyster. Dr. Rapmund prefers the hydrochlorate of quinia, and its intence bitterness may be to somo extent concealed by the addition of a little glycerin to the mixture. The flavour is also masked by its boing dissolved in coffee.—*Practitioner*, Aug. 1874.

TREATMENT OF TYPHOID FEVER BY COLD.

Dr. F. T. Roberts, Assistant Physician and Teacher of Clinical Medicine in University College Hospital, gives (*Practitioner*, January, 1875) the following as the conclusions which he has arrived at with respect to the treatment of typhoid fever by cold.

"1. It is highly desirable that the members of our profession should be more generally impressed than they are at present with the usefulness of the various modes of applying cold to the surface of the body in febrile cases, under certain circumstances; and that they should be prepared without hesitation to carry one or other of them out efficiently whenever this plan of treatment is indicated. This applies to typhoid in common with other fevers.

"2. On the other hand, to adopt a routine hydropathic treatment of any fever seems to me most objectionable, and this applies especially to the more severe methods which are advocated. As already remarked, they are not easily carried out in general practice; they are certainly not required in a large proportion of cases; most of them are anything but pleasant to the patients, and they may prove very trying and exhausting, especially if frequently repeated, as they usually need to be if the treatment is efficiently fulfilled; while it must be remembered that they are not harmless measures, but may have a powerful influence for evil as well as for good. With regard to typhoid, many cases do not come under observation until it is too late to attempt to check the primary fever, even supposing that the intestinal lesion could be thus limited. For these and other reasons I do not see that, at present at least, a hydropathic treatment of typhoid fever in general practice has any claim to our support. If it is thought worthy of trial it ought first to be fairly tested in *bonâ fide* cases of this disease, and under the strictest and most competent supervision. With regard to sponging of the skin, I believe that this is often very useful, and ought to be employed far more requently than it is at present, in typhoid as well as in ther fevers. With proper care it does no harm, while it often gives much relief, and is beneficial in other respects.

"3. The cases in which the more severe methods of applying cold are indicated are those in which the temperature is already very high and remains so, or shows a tendency to rise rapidly, especially if at the same time there are signs of much nervous disturbance. Unquestionably this plan of treatment is not resorted to under these circumstances nearly so frequently as it ought to be. It is difficult to lay down any exact rule as to what tempera-

ture indicates the necessity for adopting it, but if it reaches to 106° F. and shows no tendency to fall, or, still more, if it continues to rise, the treatment deserves due consideration. Necessarily much will depend on the actual condition of the patient, and every case must be thoroughly considered in all its features. The best method seems to me decidedly that of placing the patient in a tepid bath, and gradually cooling this. Affusion over the head is useful if there are marked nervous symptoms. Of course it is imperative that this treatment should be always conducted under the strictest supervision, and its effects carefully watched."

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MONTREAL, JULY, 1875.

RESULT OF THE ELECTIONS.—The following are the names of the newly-elected members of the Medical Council of the College of Physicians and Surgeons of Ontario:—Territorial Representatives; Dr. Edwards, Strathroy, Western and St. Clair; Dr. Hyde, Stratford, Malahide and Tecumseth; Dr. Wm. Clarke, Guelph, Saugeen and Brock; Dr. D. Clarke, Princeton, Gore and Thames; Dr. Henwood, Brantford, Erie and Niagara; Dr. Macdonald, Hamilton, Burlington and Home; Dr. James Ross, Toronto, Midland and York; Dr. Allison, Bowmanville, King's and Queen's; Dr. J. Dewar, Port Hope, Newcastle and Trent; Dr. Irwin, Wolf Island, Quinte and Cataraqui; Dr. Grant, Ottawa, Bathurst and Rideau; Dr. Brouse, Prescott, St. Lawrence and Eastern. Collegiate Representatives: Dr. McLaughlin, Enniskillen, University of Toronto; Dr. Berryman, Yorkville, University Victoria College; Dr. Alex. Bethune, Glanford, University Queen's College; Dr. Hodder, Toronto, University Trinity College; Dr. Aikens, Toronto, Toronto School of Medicine; Dr. Lavell, Kingston, Royal College of Physicians and Surgeons, Kingston; Dr. Lynn, Ottawa, University of Ottawa. Representatives at large: Dr. A. Carson, Whitby; Dr. Cornell, Toledo, Dr. Morrison, Forest; Dr. Muir, Merrickville; Dr. Bogart, Carlton Place. Homœopathic Representatives: Dr. D. Campbell, Toronto; Dr. Logan, Ottawa; Dr. Vernon, Hamilton; Dr. Morden, London; Dr. Henderson, Strathroy.

W. G. BEERS (defendant in Court below), Appellant, and H. M. BOWKER (Plaintiff below), Respondent.—TASCHEREAU, J., dissenting.—The respondent sued the Appellant for libel, contained in an article published in the Canada Journal of Dental Science. The article in question charged the respondent with having used professionally as a dentist, a certain amalgam mineral paste for filling teeth. The plea of Beers was that Bowker had previously, in an article published by him in the Canada Medical Journal, stated that the use of amalgam, a pernicious compound, was encouraged by the Dental Association of Quebec, of which Beers was a member. I would reverse the judgment which condemned Beers to pay $10 damages, and put the parties out of Court, leaving each to pay his own costs.

VACCINATION IN SCOTLAND.

SCOTLAND has always stood high as a country where medical science is cultivated with earnestness and assiduity. The tenth annual report on the vaccination of children in that part of Britain compares very favorably with statistics of vaccination in England. During the ten years from 1864 to 1873, 1,149,352 children were born in Scotland, and no less than 1,011,524 of these were successfully vaccinated. Of the 137,828 cases not vaccinated, 97,699 died before vaccination, which is not compulsory until the expiration of six months after birth. In 5,811 cases the infants were said to be incapable of being vaccinated, either from severe constitutional peculiarity, from previous vaccination, or from having had the small-pox. The operation was postponed for medical reasons in 8,118 cases, and in the remaining 22,200 cases the children had been removed from their birthplace before vaccination. It is we think, a pity that the period for non-performance of vaccination should be so long as six months; three months would be quite long enough. During the ten years from 1855 to 1864, 75 per cent. of the deaths from small-pox occurred in children under the age of five, whereas since 1864 only 25 per cent. of the deaths from small-pox were so caused. Nothing could better illustrate the advantages of the general system of the Registration, which is in operation in Great Britain, than the figures given above. Until we obtain such a system, and have it in operation in Canada, it is useless to attempt to enforce compulsory vaccination—for in our opinion it is impossible to carry it out. True, something may be accomplished—but compared to the Scottish Statistics, our

success must indeed be small. We hope our friends in Montreal who are at present working with so much energy on behalf of Sanitary science,—and for which we accord them our warmest praise,—will look at this matter, and press upon our Dominion Legislation the immense benefits which would follow the passing of an act, similar in scope to the act now in operation in Great Britain for the Registration of Births, Marriages and Deaths. Until this is accomplished, the energy of our Sanitary friends will not bear fruit such as it deserves.

MEDICAL MEN AND LIFE INSURANCE.

In July, 1874, two medical men of Limerick, Ireland, named Sheedy and Meehan, were convicted at the General Assizes in that town of conspiracy to defraud the New York Life Insurance Company by false and fraudulent representations as to the health and habits of persons examined by them, on proposals for Life Insurance, were convicted and sentenced to twelve months imprisonment in the Limerick Gaol. At the meeting of the General Medical Council of Great Britain, held in June of the present year the names of these two men were removed from the Medical Register, thus disqualifying them forever for the practice of their profession in Britain.

BISHOP'S COLLEGE CONVOCATION.

The Annual Convocation of this University was held in the large hall of the University on the 24th of June, which was crowded to excess, when the most satisfactory reports were made of progress in the various faculties. The Hon. George Irvine (late Attorney General Province of Quebec) the newly elected Chancellor in place of the late Hon. Edward Hale, occupied the chair, supported on either side by their lordships, the Bishop of Quebec and the Bishop of Montreal, Metropolitan, and R. W. Heneker, Esq., of Sherbrooke, the Vice-Chancellor. The Faculty of Medicine presented three candidates for graduation, viz., Mr. John Davis of George town, Barbadoes; Mr. J. Arthur Pidgeon of Quebec, and Mr. Frederick Benoit of Montebello, Que., who duly received the degree of C. M., M.D. Prof. F. W. Campbell addressed the graduates in medicine, and Dr. Pidgeon delivered the student's valedictory; various other addresses were delivered, and the occasion was looked upon as a memorable one in the history of the University, as it was announced that the finances were in a most satisfactory condition, the college being out of debt. We hear that among the friends of this institution, there is a strong desire to organize a law and engineering Faculty.

PUBLIC HEALTH MAGAZINE.

We have received the first number (July) of a new publication bearing the above title, issued and edited by Dr. Baynes, of Montreal. In general appearance, it is very creditable, and the contents are interesting and instructive. The subject of sanitary science is one which is attracting, we are glad to say, a considerable amount of public attention at the present time, and it is meet that sanitary literature should emanate from the Metropolis of the Dominion. Dr. Baynes has for some time back devoted much attention to the subject of hygiene, and as editor of the new Health Magazine he has our warmest wishes for its success.

MEDICAL FACULTY BISHOP'S COLLEGE.

We have received the 5th annual announcement of this Faculty, which informs us that the Session will open on the first of October next with an introductory lecture by Professor Wilkins. Several changes have occurred since last Session in the staff of the Institution, but we notice that the new additions are names well known among the Profession in Montreal. We notice also that this Faculty claims the honor of being the only school in Canada which teaches Practical Physiology. They have also established a chair of Minor Surgery, with a view of practically teaching students all those minor operations which form so important a part of a general practitioner's duty.

HOW TO MAKE GOOD MUCILAGE.

The best quality of mucilage in the market is made by dissolving clear glue in equal volumes of water and strong vinegar, and adding one-fourth of an equal volume of alcohol, and a small quantity of a solution of alum in water. The action of the vinegar is due to the acetic acid which it contains. This prevents the gelatinizing by cooling; but the same result may be accomplished by adding a small quantity of nitric acid. Some of the preparations offered for sale are mere boiled starch, or flour, mixed with nitric acid to prevent gelatinizing. These preparations are very inferior in quality to that made from glue.

PERSONAL.

Dr. Charles Gowan has been appointed Medical Superintendent of the Toronto Lunatic Asylum, in place of Dr. Joseph Workman, resigned. Dr. Gowan was formerly assistant superintendent of the Worcester (England) Asylum. Dr. Metcalfe of Windsor, has been appointed assistant superintendent in place of Dr. Benjamin Workman, resigned.