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Original Communications.

Observations on some Cases of Injuries and Diseases of Joints, by WILLIAM FULLER, M.D., Professor of Anatomy, University of Bishop's College. Read before the Medico Chirurgical Society of Montreal, October, 1876.

GENTLEMEN,—The report of a few cases of injury and disease of joints which I present to the Society to-night are such as occur in everyday practice, but which I hope are of sufficient interest to elicit useful discussion on this important department of surgery. They are drawn from memory, and will of necessity be imperfect in detail. I shall endeavor to be as accurate as possible in description, and to lay down the principles which guided the treatment.

Case 1.—A. P., butcher, aged 28 years, good constitution and temperate habits, was precipitated from a cart drawn by a runaway horse upon a stone road, with such violence as to cause a compound dislocation of the ankle. The sole of the foot was directed upward and inward, while the maleoli projected through a rent about four inches in length across the outer side of the joint. The bones were also forced through a woollen stocking, and the joint was filled with dirt, threads and small pebbles. Upon consultation with two neighboring surgeons it was concluded to amputate, but the patient was unwilling to submit without a trial to save his foot. I was glad to observe the result of conservation in so extensive an injury to a large joint; accordingly, after cleansing the wound and interior of the joint of all extraneous substances—which required time, care and patience—I adopted the principle laid down by Mr. Paget, as my guide in the treatment, “that the healing process is in the inverse to the amount of inflammation,” and that to relieve pain is to relieve a difficulty of nature. I gave $\frac{1}{2}$ of a grain of morphia to relieve the shock, and waited for the first appearance of pain and heat. I found that it caused great pain to reduce the dislocation, so I left the foot nearly as I found it at the time of accident. The foot and leg was rested on a pillow with the sole directed inward and the synovial surfaces separated. Excitement commenced in twenty-four or thirty-six hours, which was met by cold wet compresses to the foot and leg frequently changed,

and tincture of aconite internally to moderate the circulation. As the heat and the sympathetic fever increased, I lowered the temperature of the *body* by frequent bathing and the leg by pouring water continuously over it; the wound was protected from the water by oiled silk. The means were increased according to circumstances by adding ice to the water and by cooling the blood thrown into the part by placing an intestine filled with pounded ice along the course of the femoral artery. Eight or nine days of this brought us to the climax of the acute stage, when we commenced to moderate the cold applications until in a few days we had returned to a wet cloth applied to the leg; morphia had been given at intervals to relieve pain, which was at times severe. During the acute stage the synovial membrane was red and swollen with very little secretion, and toward the end was covered with a diphtheritic looking membrane which, as the acute symptoms subsided, broke up and was discharged as flocculi in a semi-purulent serum. Starting pains frequently occurred followed by discharges from the joint. An abscess formed upon the inner side of the ankle, which was opened. The secretion from the joint finally lost its flocculent and semi-purulent character, and became a clear yellowish albuminous fluid.

When all acute symptoms had subsided, I commenced to draw the foot gradually into position by means of adhesive straps, desisting whenever pain or excitement was caused by pressing together the two tender surfaces of the synovial membrane. It required about a week or ten days to get the sole of the foot under the leg, and in about ten weeks my patient was able to walk quite well, there was no tenderness and only a slight thickening of the tissues about the ankle, and a slight impediment to the lateral movement of the foot. No lameness or halt could be observed in the gait. He has never had a return of inflammation, or any weakness of the joint, or any effusion of fluid into it.

Case 2.—S. S., aged 50 years, highly nervous and debilitated constitution, while scoring timber, struck the broadaxe into his knee-joint on the inner side of the patella. The cut was about three inches in length in a perpendicular direction. The edge of the axe was buried into the bone, and the finger could be easily passed into the joint. I placed the stave of a flour barrel

behind the knee and bandaged it to the thigh and leg, placed the limb in a horizontal position, and applied water dressings; the wound was left open to allow a free discharge. Recovery took place without any untoward symptom, and in a few weeks the joint was as good apparently as before.

Case 3.—A. P., aged 8 years, delicate looking girl, fell upon a broken glass bottle which made a transverse incision about 2 inches in length on the inner side of the patella. The finger passed freely into the joint while examining for broken glass. This case was treated and recovered, similar to the last. The joint is perfect, and no weakness remains. I have frequently seen the smaller joints of the fingers, the thumb and of the toes laid open, and allowed to heal without any attempt to approximate the edges of the wound. In very many instances good joints were obtained unless where the tissues were much crushed or the tendons divided, when the result was generally a stiff joint or very slight mobility; a great deal depending upon early and careful passive movement.

Some years since I saw a surgeon amputate all the fingers of the right hand because the joints were opened, when in all probability they might have recovered nearly as useful as ever if they had been tied up and left to nature. Extensive experience in minor accidents has taught me to let fingers alone no matter how unpromising they appear at first, nor do I consider that open joints or compound fractures of the heads of bones require a sacrifice of the parts. Encouraged by the above results I have in a few cases opened diseased joints in which there was effusion, but first I will present to your notice one case in which a happy result was obtained by the injection of iodine.

P. O' B., aged 14 years, had injured his knee while at play, about three months previous to consulting me. He gave the history of an acute attack of synovitis followed by effusion which partially subsided at times. He had used various linaments and hot fomentations. The condition when he applied to me was as follows: Considerable effusion in the joint, ligaments very much relaxed, so that the tibia could be freely moved laterally on the femur, patella displaced about three quarters of an inch in front of the condyles by the effusion. I injected about half a drachm of strong tr. of

iodine with a hypodermic syringe into the cavity of the joint, without withdrawing any fluid. I directed the point of the syringe into the middle of the fluid, and then agitated the joint by rubbing it roughly and allowing him to walk home a distance of half a mile; he was directed to keep quiet, apply a flannel bandage, and to bathe the knee with hot water if pain occurred—no excitement followed this procedure. About one month passed and he reported himself well. No trace of effusion remained, no lateral movements of the joint, and the knee appeared the same as the other. After one year has lapsed no return of the trouble has occurred.

The following case occurred in my practice about eight years since:—

W. B., aged about five years, delicate, emaciated appearance, had been suffering for some time—about two months with symptoms of hip-joint disease. Dr. Fenwick saw the case with me. I obtained a very wide board, longer than the child, placed a soft mattress upon it, and pillows laid the child upon the abdomen and had him carried out daily in fine weather; the appetite was very poor but improved by the fresh air and tonics. As there was much pain, and as it seemed inevitable that the joint would open eventually I introduced a tenotomy knife behind the trochanter and along the neck of the femur into the distended synovial membrane. This was followed by some relief to the pain, and the contour of hip became enlarged by the fluid effused from the joint. I made a free incision into this, which discharged about a pint of sero-purulent fluid. The discharge continued for two or three months when the wound gradually healed. The joint was completely recovered in about a year and at this time it is impossible to detect any remnant of the disease.

The following is a case of Dr. Duckett's, which I saw with him in consultation, and which he kindly allowed me to report. The case was also seen by Dr. Reddy:—

J. McD., aged about 50, of a debilitated constitution, had suffered some time previously with some small boils on his body, which were absorbed. An abscess occurred in the axillæ. He had been ill about eight days at the time of the consultation of Dr. Duckett, Dr. Reddy and myself. There had been a sub-acute inflammation of the knee-joint and swelling of the

calf of the leg. The joint was now greatly distended with fluid, and an abscess of a large size had formed in the calf, which was opened and about half a pint of pus discharged. The knee was punctured with a trocar, and emptied of a sero-purulent matter, about half a pint also, and injected with a drachm of tr. iodine. In a few days the knee became again distended, and the next day the synovial membrane burst into the thigh, between the femur and the quadriceps extensor muscles, forming a large abscess. An incision was made above the knee, and it was found that the finger could be passed into the synovial sack. In three or four days typhoid symptoms set in; no lymph barrier appeared to form around the abscess; the tongue was very dry and dark, no appetite, patient very weak, and the wound emitted a fetid smell. The wound was then enlarged to about four inches in length, the whole sack well washed out with warm water, and an ounce of tincture of iodine poured into it, and, while the edges of the wound were held firmly together, the thigh and knee were shaken so as to apply the iodine to the whole surface, which felt now quite dry, and had the appearance of moist chamois leather. This application caused a slight burning sensation for a few minutes, and no inflammatory excitement followed it. The patient commenced immediately to improve, and has continued steadily to do so up to this time, which is about five or six weeks. The discharge was healthy and the serum increased, until now there is little or no pus to be observed, passive motion was practiced when it appeared to cause no excitement, and to-day the joint is free from pain, can be roughly handled, and he is able to move and bear his weight upon it. There is some thickening of the tissues around the joint, but there is every reason to believe that the knee will, eventually, become useful and perfectly moveable. Three weeks later reports that he walks smartly by the aid of a cane; no pain and very little discharge from the opening.

In reflecting upon the history of the few cases that have come under my observation, I am led to the following conclusions:—

1st. That when a joint is laid open by accident the wound should *not be closed*, but left open, or if it is a puncture, enlarged in order to allow free external drainage and healing from the bottom. Unless, perhaps, in a clean cut, where

no inflammation follows the injury, and we might expect it to heal by first intention. If any excitement follows it should be opened at once. No stitching should be used.

2. That retention of effused fluids is the cause of cellulitis and acute abscess of joints, and that most of the danger resulting from open joints is due to closing the wound for fear of allowing air into the articulation, which I think is of no consequence.

3. That an accident producing an open joint is not as serious as one causing synovitis, followed by chronic effusion, since the effusion of serum, by distending the sack and relaxing the ligaments of the joint, renders it weak and liable to sub-acute attacks of synovitis, from slight causes, which is not observed after recovery from an open articulation.

4. That when effusion occurs in a joint, which is not absorbed within a reasonable period by the use of ordinary means, it is proper to discharge it early, before the tone of the tissues is lost, or to inject tr. of iodine, with or without withdrawal of the fluid.

5. That entire usefulness of a joint may be maintained in most cases where pus is contained, if proper treatment is adopted.

6. That where pus, or sero-pus, is contained in a joint, equal ulceration of the whole synovial surface takes place, until some weak point gives way. After which, the process of repair is set up, lymph is poured out, which, by uniting opposing surfaces, establishes a permanent ankylosis.

7. To prevent this result, and to maintain the integrity of the synovial surface, free and *early* incision is *demande*d, with or without the application of strong tincture of iodine to the whole synovial membrane.

8. That the application of pure tincture of iodine to the cavity of a joint does not produce adhesive inflammation, nor does it cause pain or subsequent excitement of any moment.

I will also append an extract from a letter which I lately received from a veterinary surgeon of large experience, to whom I wrote some time ago to experiment on injection of tincture of iodine into joints by the hypodermic syringe, and also to make free openings where there was effusion. He writes: "I have opened several joints in the last two months, let out the effusion and injected tincture of iodine, with the best result, leaving the joints perfectly smooth. In

only one case was it followed by any inflammation to speak of, which soon subsided, and a permanent cure followed. I have not had a stiff joint yet from this treatment. I do not now hesitate to open a joint, and I have never seen pus formed from opening the joint or from injection of iodine. I have also used the same treatment for bursa, and synovial leakages from tendons with the same result."

531 Wellington Street, Oct. 1, 1876.

Progress of Medical Science.

THE ADDRESS IN OBSTETRIC MEDICINE. (*)

By LOMBE ATTHILL, M.D.,

Master of the Rotunda Hospital, Dublin;
President of the Section.

I think, gentlemen, I may safely assert that the proceedings of this section of the British Medical Association, which is devoted to the consideration of the subjects comprised in the term "Obstetric Medicine," attract, on the whole, more general attention from the great body of our profession, than do those of any other section. The reason for this is sufficiently obvious, for while the busy practitioner may be wholly unable to devote time or attention to the study of the important subjects included under such heads as those of "Physiology" and "State Medicine," or find that in practice cases of operative surgery are comparatively rare, he is certain to discover that the conditions and affections brought under discussion here, are of daily occurrence amongst his patients; hence he seeks to improve his acquaintance with the nature of the conditions, and to learn the best means of successfully treating those affections, which are peculiar to women; more so, as the study of these diseases has probably been neglected, possibly entirely overlooked by him, during his student's career.

Another reason for the interest evinced in the proceedings of this section is this, that marked and rapid progress has of late years been, and still is being, made in the department of obstetric medicine. The very name of the section proves this. A few years ago the term "obstetric medicine," if used at all, would hardly have been understood. This section of the British Medical Association was until very recently termed that of "midwifery." Consider for a moment what this change of nomenclature implies—it implies this, that the study of the process and phenomena of parturition, important though they be, is by no means all that is now

required of the obstetric practitioner; that is, not of those alone who make obstetrics their special study; but of all, and their name is legion, who are called upon to treat the diseases of women.

This section then includes subjects of a most varied and extended nature; it includes midwifery proper, the diseases of the puerperal state, and those incidental to pregnancy, the considerations of disease of the vagina, bladder, and uterus, of the breasts, and last and not surely least, of the ovaries. Diseases of these latter organs are doubtless, in one of their aspects, within the domain of surgery proper; but that condition which demands the performance of the capital operation of ovariectomy, is by no means the most common of those requiring treatment, and, moreover, not a few able and successful ovariectomists are to be found amongst the ranks of obstetric surgeons. Some such I have the pleasure of seeing around me here to-day.

Gentlemen, we deem the practice of midwifery to be in no way derogatory. It is our honorable function to succor woman in her hour of trial, to shorten or relieve her sufferings, often to save her life or that of her offspring; to meet with promptness and decision the numerous dangers and difficulties which frequently and unexpectedly occur during labor, and which tax to the utmost our courage and endurance and skill; but these duties, though most important, form but a small portion of those which now devolve on us daily. The affections I have already indicated as coming within the province of obstetric medicine are so numerous and of such constant occurrence, that the right treatment of them is all important, as well for the sake of the sufferers as for the reputation of the practitioner.

The truth of this is now on all sides admitted, and the study of uterine disease, in its protean forms, is consequently steadily becoming more general; but unfortunately our knowledge of the pathology of these important affections is as yet imperfect, and our treatment consequently in many respects empirical and unsatisfactory. Still, great strides in advance are steadily being made, and we may look forward hopefully to a time not far distant when phenomena and symptoms at present overlooked or misinterpreted will be explained, and our treatment consequently become more scientific and efficient.

To the late Sir James Simpson, without doubt, is due the credit of inaugurating an era which has been marked by great and rapid progress in the department of obstetric medicine. His master-mind perceived how vast an amount of unrecognised disease, and what an extensive field for pathological investigation existed with reference to the reproductive organs of women; before his day little was

(*) An Address delivered at the opening of the Section of Obstetric Medicine at the annual Meeting of the British Medical Association in Sheffield, August, 1876. By Lombe Athill, M.D., Master of the Rotunda Hospital, Dublin; President of the Section.

known of uterine disease, and as to treatment, it consisted of little more than in exposing the cervix uteri, and applying to its vaginal surface, if it happened to be abraded, a solution of nitrate of silver, or of some other mild caustic. Of disease of the body of the uterus almost nothing, of its anterior absolutely nothing was known. A morbid, and as we now know, an unfounded dread existed of attempting to interfere with, or to investigate the condition of the cavity of the uterus. All this is now changed. We know that disease of the cervix uteri is of less frequent occurrence, and of less serious import than that of the body, and that its cavity may with impunity be trespassed on, and disease occurring within it successfully combated. Without doubt the most important practical result of the teachings of Sir James Simpson is this, that we do not now hesitate to dilate the uterus and investigate the condition of its interior, when symptoms indicative of serious mischief within the organ require us to do so.

I am well aware that by some practitioners the dilatation of the uterus is still looked on with dread, and that the attempt, if made at all, is undertaken with the greatest hesitation. I can only say that I believe these fears to be groundless, and that, if due care be taken to select suitable cases, and proper methods of carrying out the process be adopted, the treatment is a safe as well as a justifiable one. My own experience in the dilatation of the uterus has been great. I have practiced it very frequently indeed during the last ten years, and as yet in no single instance has a bad symptom followed, nor have I even once been compelled to abandon the attempt. But I am far from throwing doubt on the accuracy of the statements made by others, who have recorded the occurrence of alarming symptoms, or even of death, as consequent on the attempt to dilate the cervix uteri; and I am quite prepared for the possible occurrence of such, for all are aware that cases must occur in which the most trifling exciting cause will be followed by serious symptoms, though no grounds existed beforehand for anticipating the occurrence of such. But these are exceptional, and I believe, as a rule, that when serious symptoms arise, either during the process or in consequence of dilatation of the cervix uteri, they do so either because an unsuitable subject has been selected in whom to practice the treatment, or an unwise method adopted for carrying it out. On examining the records of the cases in which serious or unpleasant symptoms followed the attempt to dilate the uterus, I find they have generally occurred when practised,

1st. Either for the relief of dysmenorrhœa depending on the existence of a narrow cervical canal;

2nd. When the cervical canal is encroached

on by a fibroid of large size and unyielding structure;

3rd. When the process has been attempted to be carried out rapidly by means of metallic dilators; or,

4th. When it has been protracted over several days.

I have, therefore, in order to guard as far as possible against the serious results recorded by others as following attempts to dilate the uterus, laid down for myself the following rules, which I can recommend with confidence to others.

1. Never to dilate the cervix uteri for the cure of dysmenorrhœa or sterility depending on a narrow cervical canal or conical cervix.

2. Never to dilate in cases in which a large and dense intramural fibroid presses on and partially obliterates the cervical canal.

3. Never to use metallic dilators of any kind, but to choose for the purpose either sponge, or sea-tangle tents, which expand slowly and gradually.

4. Never to continue the process of dilatation for more than forty-eight hours. I prefer, in the few cases I have met with in which, after the lapse of that time, the cervix was not sufficiently open to suit the purposes I had in view, to postpone all operative interference for some weeks, rather than risk the result by prolonging the dilating process.

With respect to the first of these rules, I look upon the treatment of what is termed "mechanical dysmenorrhœa" by dilatation as being altogether a mistake. I doubt if any permanent benefit has ever resulted from it; while in several cases grave symptoms, and in one death, has to my knowledge followed the attempt. Equally, it is of importance not to prolong the dilating process. My own experience of the treatment of uterine disease requiring dilatation leads me to this conclusion, that unpleasant symptoms are likely to occur in a direct ratio to the length of time over which the process of dilatation extends. Again, I have known death to follow the attempt to dilate the uterus in a case where a large fibroid of dense structure, giving rise to menorrhagia and causing intense pain, was developed in the uterus, and encroached on the cervical canal. In such cases, dilatation is doubly objectionable, because the process is useless as well as dangerous; useless, because you will generally find that any attempt at operative interference from the interior of the uterus will be impossible; and dangerous, because inflammation is liable to follow, and that too in patients in the worse possible condition for resisting the attack.

Hardly second in importance to the knowledge that the uterus may be with safety dilated to an extent sufficient to enable us to remove large tumours, is the fact of which we are now certain, that remedies of even a powerful nature may, not alone with impunity, but

with the greatest advantage, be applied to its interior. But at this point our knowledge becomes defective. Some practitioners prefer one, some another agent, for intra-uterine application. It may be carbolic, chromic or nitric acid, or iodine, or the solid nitrate of silver; but as yet there has not been, it seems to me, sufficient care exercised in watching the action of these various agents, or in recording the effects they severally produce. Hence we are without data on which to base our treatment, or to guide us as to the agent to be selected in the treatment of the various forms of disease requiring intra-uterine medication. It is evident that no one of them can be suitable to all cases. For myself, I prefer carbolic acid in mild, and nitric acid in severe ones; but I freely admit I have much to learn on this point, and I look to others to aid me with their experience in deciding this important question. But it seems to me that, as with the dilatation of the uterus, so it is with respect to the application of agents to the interior of the uterus: that a groundless dread prevails as to their use. Here, too, as in the former case, the treatment is safe if carefully conducted, and if only practised in suitable cases and at the right time. Thus, if a caustic be applied through a narrow cervical canal, trouble is likely to occur. Equally will it probably follow if the fundus be tender to the touch, and chronic inflammation present; but, if the tenderness be first mitigated, and the inflammation lessened or removed, the application will, in all probability, prove beneficial.

In the treatment of uterine fibroids, too, we have made progress, but not as yet to a satisfactory extent. This much we know for certain, that many such cases, if menorrhagia be not excessive or pain intense, are best left alone; and it is astonishing in how many instances, even where menstruation is profuse, this course proves to be a wise one, treatment being restricted merely to what is absolutely necessary to prevent the flow being excessive. But, unfortunately, exceptions are of but too frequent occurrence; and how are we to treat these? The removal of large fibroids by abdominal section has been successfully practised, but the risk of life involved in the operation is great; and the attempt to remove smaller ones by means of the *écraseur*, after dilatation of the cervix is, I can vouch from personal experience, a difficult and eminently hazardous process. Again, enucleation is tedious, unsatisfactory, and often dangerous.

We have, however, at our command a resource which, if not all that we desire, is still generally efficient in controlling hæmorrhage, often sufficient to arrest the growth of the tumour, and sometimes apparently capable of reducing its size. I allude to the hypodermic injection of ergot, which, if it has failed in this

country to produce the almost marvellous results ascribed to it by Hildebrand, is, if properly carried out, a safe as well as an efficient remedy. In my first cases, the results obtained were not only uncertain, but unsatisfactory, for troublesome sores sooner or later formed at the seat of the injection. Of late, however, I have obtained much better results. In not one of ten cases recently under my care, in which I fairly tested this treatment, has the hypodermic injection of ergot been followed by the formation of an abscess or sore; in all it had more or less effect in restraining hæmorrhage; in one, the injection was repeated almost daily for five months, with the effect of absolutely restraining excessive menstruation, but with no other beneficial result, for the bulk of the tumour remained unaltered, and the pain was as intense as ever. Still it was no small matter to have transformed a profuse and exhausting flow, which formerly lasted for twelve or fourteen days, into one of moderate character and of but two or three days' duration. It is evident, then, that in ergot, employed hypodermically, we have a powerful agent, one capable of exerting a marked influence on uterine fibroids, but still uncertain in its action, and not altogether to be relied on.

Again, with reference to displacements and flexions of the uterus, much still remains unknown, and authorities seem to be as far as ever from agreement as to the important question of cause and effect. It is much to be desired, that the pathology of these conditions should be carefully investigated, and the obscurity which surrounds some of them at least, if possible, cleared up. In fact, to whatever subject we turn, we see that, great as are the grounds for satisfaction at the advancement made in the knowledge of uterine disease, much remains to be done, and much careful observation is still needed, if this department is to hold its position as one eminently progressive. The great obstacle which retards the investigation and consequent elucidation of many points of interest and importance connected with the study of obstetric medicine is doubtless this, that comparatively few patients afflicted with chronic uterine disease die actually of these affections. They may be doomed to a life of constant suffering, and existence itself may become an actual burthen; but most probably they will be carried off by some intercurrent disease; and, if a *post-mortem* examination be made at all, the investigation will be directed to other organs than those of the reproductive system. It would be of the greatest advantage to us, if those gentlemen who have the good fortune of being attached to large general hospitals in the capacity of obstetric physicians would direct their clinical clerks to attend all *post-mortem* examinations made in the hospital on the bodies of females, and record

the condition of the uterus and its appendages, and especially of the ovaries; for though doubtless, in the absence of clinical records of the history of the patient with reference to her uterine functions, much of value will be lost, still from time to time facts of great importance will be ascertained, and valuable information gained.

Information is specially needed with respect to some forms of ovarian disease. Some patients suffer for years from pain and tenderness of the ovary, from mammary pain and nausea of a most distressing character. Such I have seen reduced to a condition of actual despair; for all treatment seems useless, so utterly inefficient does it prove. In these cases, the ovaries are in general plainly enlarged, but the exact pathological condition of them is in many cases unknown. Here is an affection most deserving of investigation, both as to its causation, pathology and treatment. I know of no form of disease which produces more real suffering, equally of mind and body. An American surgeon, Dr. Battey, of Georgia, convinced of the inadequate results produced by ordinary treatment, has recommended the extirpation of the ovaries in such cases, arguing that, from the results on animals, the operation would be safe as well as justifiable in the human female. I confess that to my mind his views contain much of truth, and that, were I satisfied that I did not endanger life, I would in some cases sanction the operation; and I think we may possibly yet see it practised even amongst ourselves, as I believe it has been in America. But such a practice would, after all, be a lamentable confession of the inadequacy of medicine to cope with what should be a curable disease. Let us hope that, as light is let in on these obscure questions, this reproach will be removed.

Gentlemen, I have I fear exceeded the limits of the time allotted to each paper, and it would ill become one who has to enforce a rule, to break it himself; but I cannot conclude without some allusion to what has been termed "the burning question" of the day. I have no intention here of discussing the advisability or otherwise of the admission of women into the profession of medicine; but I must refer to the course proposed to be adopted by the College of Surgeons of England, which on granting their midwifery diploma to persons but partially and most imperfectly educated; a step than which I cannot conceive one more retrograde, or so calculated to lower the profession in public estimation, or to inflict injury on the poorer classes among whom such persons would necessarily practise. I am happy to say that the example set by the College of Surgeons in England has not been imitated by any other licensing body, though more than one had the power of doing so; and to the credit of the

University of Dublin, be it said, that it has recently been decided to grant a special degree in midwifery to persons who have previously obtained one in medicine or in surgery, being thus the first British University which has recognised the position gained by obstetric medicine, an example which I trust will yet be imitated by the sister universities.

THE ANTISEPTIC METHOD OF DRESSING OPEN WOUNDS.

A Clinical Lecture By Prof. JOSEPH LISTER, of Edinburgh. Delivered at Charity Hospital, New York, October 10 1876.

(Phonographically reported for THE MEDICAL RECORD by Nelson W. Cady.)

GENTLEMEN:—It is a most unexpected privilege that I enjoy of addressing a few words to you. Until just now, when I saw you all galloping with such speed from the steamer, I had no idea that I was to address so large a body of students.

You will, therefore, excuse me if the remarks which I may make should be extremely imperfect. If, however, as I understand my friend, Prof. Van Buren, you are already, through him, indoctrinated in the principles of antiseptic surgery, it is not, therefore, necessary for me to go much into details.

Well, then, as the patient is not quite ready, I will say a few words of introduction. The main principle of antiseptic surgery is to be illustrated in this case by opening a venereal abscess in the groin.

If we have a fracture, the skin being unbroken, everybody knows that such an injury is devoid of danger. We put on proper splints, keep the parts dressed, and there is no inflammation in the parts to speak of,—no constitutional disturbance and no trouble. But if it so happens that the skin is broken at the same time that the bone is broken, then we have an injury that used to be one of the most formidable in surgery. If we compare the two injuries we see that the circumstance of this skin being broken is not, *per se*, of any material consequence at all; it may be that the simple fracture is much the more severe injury of the two. The bone may be comminuted, the vessels extensively lacerated, and a large amount of blood diffused. Whereas, in a compound fracture, we may have the bone simply snapped across, but the skin broken.

Now we know from other circumstances that the lesion in the skin does not in itself particularly constitute the injury; it is not the injury to the skin, *per se*, but the fact of the skin being broken. We all know that if a compound fracture is treated or not treated in the course of three or four days we have an offensive discharge from the opening. I do not mean that a compound fracture not treated antiseptically will have such a result. It was known in the time of John Hunter that such a fracture, if covered over with cotton and air-tight dressings and left alone, will go on as quietly as if the skin were unbroken. But, suppose the skin is treated with poultices you are sure to have a suppuration in two or three days. The blood within, the extravasated

blood, putrefies. If any one were to talk of pouring a quantity of putrid blood into a recent wound, such a proposition would be received with horror; but everybody knows that pretty much the same thing takes place if the blood is allowed to putrefy in a wound. After a few days have elapsed, the wound becomes granulated, and as soon as granulation takes place, if the surfaces are brought together, there is apt to occur union by first intention.

It was shown by Pasteur, conclusively shown, it seemed to me, after reading his experiments, that putrefaction was a fermentation, that it was a manifestation of the existence of a ferment similar to that which exists in yeast.

When that was shown by Pasteur, then at once it occurred to me, here is a chance for improvement. We may possibly be able to prevent putrefaction in wounds if the cause of putrefaction in wounds is not the access of air, but of living organisms developed in the air, and which in the blood are the cause of putrefaction; then it may be that we may get hold of some agent which will be strong enough in its action upon this kind of organisms to destroy them without doing damage to the human tissues, just in the same way as crab-lice are destroyed without injury to the skin. So in this case, if we can apply to our wounds some agent which may destroy the minute organisms, which are the cause of putrefaction without injuring the wound, the problem is solved—it is no longer a question of hermetically sealing out the air; it is merely applying a dressing that shall act as a germ-destroyer to prevent the influence of these living organisms.

This, gentlemen, is our principle. The agent which we found in the majority of cases most efficient is carbolic acid. It had been used without my knowing it, in a medical ward in the hospital, and with great advantage, as an antiseptic. It had been used, as well as antiseptics of various kinds, for the purpose of *mitigating* putrefaction, not of *preventing* it: that is the great difference.

The principle of antiseptic treatment is to prevent the occurrence of putrefaction in the wound by the presence of the organism with which you have to deal. If you can prevent that, then your wound comes to be in the condition of a simple fracture.

Taking this example of a simple fracture, we feel, as a matter of course, that if we really can by any means adopt such a mode of dressing as shall be equally efficient with the unbroken skin a wound, no matter how severe or contused it may be, and no matter what the patient's constitution, ought to be perfectly amenable to treatment.

You may ask, Why do you disregard the patient's constitution? My reply is, Do you regard the constitutional treatment important in a simple fracture in which we have a severe wound, contused, lacerated, and so on? If you could see such a case, you would say. Here is a wound that will not heal without sloughs and suppuration. Yet because we cannot see the injury, and because the skin is unbroken, we are apt to forget what is really the nature of the injury in a simple fracture, which I venture to say is

as bad and much more severe than any that the surgeon ever inflicts. Yet no man regards the patient's condition in a simple case of fracture, but contents himself with the local treatment. If constitutional treatment is adopted at all, it is only in case of constitutional disturbance.

The treatment of an ordinary abscess, acute or chronic, under antiseptic management is, I think, one of the most beautiful points of the whole matter.

Suppose an abscess is opened in the ordinary way, that is, by a free incision. The result is, you get rid of your patient by opening his abscess; the previously maintained suppuration is gotten rid of by relieving the tension; but, instead of the previously existing causes of irritation, you let in a new one, viz., *putrefactive element*. The discharge remaining in the abscess putrefies, and, by reason of its irritating properties, ends in and keeps up the suppuration. But by this means (the antiseptic method) you prevent putrefaction, prevent the access of putrefactive elements, while at the same time you get rid of the tension by opening the abscess and introducing a drainage tube, while the so called *pyogenic membrane* is left free of any disturbing cause at all, and as soon as the pyogenic membrane is free from disturbance it ceases to be pyogenic.

If you take the two flaps of a patient's thigh where an operation has been performed by the double flap method, and lay the granulating surfaces together—taking away the dressings which our forefathers used to have between the flaps after an amputation to make them lie apart—when you come to see the case next day you will probably find a large extent of these granulating surfaces coalesced near to each other. Well, now, consider these surfaces one moment.

The granulating surfaces have no tendency to form pus unless they are irritated. Suppose that the granulating surfaces have a tendency to form pus, then if the two granulating surfaces are brought together we should have pus secreted. *Impossible.*

The secretion would still go on, although the surfaces were thus united and in contact with each other. There is nothing to prevent the possibility of the effusion of fluid, if it were the office of granulating surfaces to produce pus. The pressure would lead to tension and the formation of more pus. But even then there is no more serous effusion, that is to say, the serous effusion soon ceases after the granulations are brought together; for if the serous effusion still continued, the granulations could not coalesce. What is the fact that leads to this remarkable result, that from that time forth the formation of pus ceases? It is simply disturbance that keeps it up, and nothing else; but when the granulations are put in contact with each other, they will protect each other perfectly from any irritating cause. The granulations of the previously suppurating wound thus protected, immediately cease to suppurate; very soon after they cease to form serous effusion, the tissues proceed to develop into the higher fibrous tissue of the cicatrix. There, gentlemen, you have evidence that the only thing granulations require is to be *left alone, free*

from any serious disturbance, and the result will be that you will have no more pus. Open the abscess antiseptically; employ efficient antiseptic dressing, and at the same time provide for the escape of serous effusion, and the suppuration ceases from that time forward.

THE OPERATION.

The apparatus by which the carbolic spray is generated has been already described, so that it is not worth while to go into details. The few general principles which Prof. Lister laid down were of much importance, viz., that it was necessary, to the proper application of the antiseptic method, that the spray should be thrown out in large volume, extensive enough to envelop completely the hands of the operator, the instruments, and the site of the operation; and if at any time he was compelled to move his hand out of the spray to take up a new instrument, he should dip his hands in the basin of carbolized water (aq. 20, acid carbol. 1) before using it, otherwise that neglect might be the means of introducing these minute organisms into the wound; that the skin over the point of operation should be very carefully shaved, so as to leave no parts unexposed to the action of the carbolized water which was to be applied to the integument for the destruction of any of these organisms which might exist upon it; that any neglect of the total destruction of all the organisms would be fatal to a properly considered antiseptic method of treatment.

The abscess in the patient's groin being opened in the usual manner at the most dependant point by a free incision, the Professor remarked that, as it was necessary to establish a drain, he was in the habit of using the india-rubber drainage tube of Chassaignac; that an important point in the application of this tube is that it should not be left projecting outside the wound, but should be flush with the surface; and that to keep the tube from being pushed into the wound, two small threads were fastened on either side of it; and that, as in the present instance the tube was placed in an oblique position, it was necessary to cut the end of the tube in an oblique manner so as to be made flush with the surface.

The abscess, when opened, discharged a large amount of grumous, offensive pus, which was carefully sponged away with carbolized water. Happening to pick up a sponge that had been dipped into the basin containing the chocolate-colored mixture of pus and carbolized water he used it also, and remarked—in answer to some one who objected, that the sponge was foul with pus—that this was perfectly true, but that the sponge was *antiseptically clean*, and was, moreover, vastly cleaner for surgical purposes than the majority of sponges obtainable in the shops, because it had been dipped in the antiseptic fluid. Having emptied the abscess and put in the drainage tube, he applied the antiseptic dressing which consisted, first, of several layers of carbolized gauze, to act as a compress; then of a large layer, about sixteen inches square; next a piece of oiled silk, and finally of several more layers of gauze. the whole

being confined to the limb with elastic bands, so as to keep out the air.

One of the windows of the amphitheatre happened to be open, and a current of air deflected the cloud of spray from the wound. Professor Lister at once called attention to this as an important point to be observed. The window must be shut, otherwise the spray would be diverted from the wound, allowing the access of the organisms against which the spray was intended to provide.

His minute attention to all such details made this lecture of unusual interest and importance.

GOURAUD ON THE ACTION OF CLIMATES ON THE TREATMENT OF PULMONARY PHTHISIS.

In a second note on the action of different climates on the treatment of pulmonary phthisis (*L'Union Médicale*) Dr. H. Gouraud says:

If we merely desired to discover the places on the face of the earth where phthisis is absent or rare, the task would be comparatively simple. They are to be found from the stations of Southern France and of Italy, even to Norway, the Faroe Islands, and Iceland; from mild humid insular stations to the steppes of the Kirgoi with their eminently dry climate.

Norway, Iceland, and the Faroe Islands have cold humid climates, and yet appear to enjoy an immunity from phthisis. On the other hand the cold and dry steppes are now much employed in combination with the use of koumiss. Patients are sent in forty hours by rail from St. Petersburg to Nijni-Novgorod, and from that place to Samara in the steppes, in twenty hours by steamer. There they stay from May 1 to October 1.

What greater contrast can there be than that between the steppes of Russia, the south of France, and the climate of Madeira? Yet all are sought for the same object. Granting that many of these places enjoy a considerable degree of immunity from phthisis, why does this immunity not extend to visitors? The answer is, because phthisis is not a product simply of climate. It is also a social disease. If there can be any fact certain, it is this, that the more people become crowded together the more industries are developed, the more does phthisis show itself. Crowding in small rooms at home, too early labor, the inhaling of foul or of deleterious particles in manufactories, a too sedentary life, are frequent causes of phthisis. The great centres of industry are the places which yield the highest mortality from it, as London, Manchester, Liverpool, Paris, Glasgow, New York, Philadelphia, New Orleans, Berlin, Munich, and Vienna. England has been called the home of industry and of phthisis.

We need not inquire here into the accidental and constitutional cause of phthisis; but we may say that, as climate is not the sole cause of phthisis, so climate alone will not produce immunity from it. Phthisis is produced in a great variety of climates, and, consequently, it is not to be always avoided by the mere selection of a climate.

In medicine climate is an adjuvant, not a specific. The absence of a particular malady from a place does not prove that the place is a prophylactic against that malady. A climate may have tonic and exciting properties which favor the nutrition and the good health of persons born in that climate, and employing a diet and mode of life suitable to it. Yet these same tonic and exciting qualities may not suit subjects already attacked by such and such maladies, and having irritable or vulnerable organs. These qualities favorable to the one class may be unfavorable to the other. The immunity of the natives of a place from any particular disease only furnishes a reason for studying it in its climatic relations.

Immunity of itself affords no guarantee for patients; but if it is proved that there are fewer sick of a given malady, say at a certain elevation, this fact is so far favorable to altitude. If, further, it is verified by direct observation that patients in such or such stages of their complaints derive benefit from residing in the mountains, this is enough to recommend mountains, especially if they have already tried other climates without advantage.

It seems now to be generally admitted that the number of cases of phthisis diminishes as the elevation increases. How is this to be explained? We must in the first place allow that many of the factors of phthisis are absent at a certain elevation, that is, all of them that are connected with social life and aggregation; but besides this, what further explanation have we?

1. Hirsch says that it is because the alternations of temperature are less marked in the mountains than in the plains.

2. Brehmer says that the air is more tonic and favorable to nutrition.

3. Jourdanet says that the cause is the deficient supply of oxygen.

It is true that the relative proportions of oxygen (21), and of nitrogen (79), are the same in the mountains and in the plains, but, as the higher layers of the air have less density, the quantity of oxygen in them for each inspiration is less. Experiments have shown that the quantity of oxygen in a liter of air at the height of 15,000 feet is about one-half what it is in the plains. The result of this is that, in order to get the necessary supply of oxygen, the inspirations become deeper and more complete, and that the thoracic cavity increases in capacity. The pulmonary cells, dilated and enlarged, become to a certain degree emphysematous, and in the end produce the dyspnoea called *asthma montanum*.

Two pathological facts appear in the mountains, which stand in relation to each other, the rarity of pulmonary phthisis and the frequency of emphysema. It seems also probable that the increased expansion of the pulmonary cells leads to a certain degree of anæmia of the lungs, and this anæmia, like emphysema, is considered to be antagonistic to tuberculosis.

The diminution of atmospheric pressure causes a derivation from the centre to the circumference, and produces a real revulsion towards the cutaneous

surface. Add to this the tonic action of the air and its influence in promoting appetite and digestion, and we see some explanation of the rarity of phthisis in mountain climates.

To these causes Lombard adds a certain excess of carbon in the system, consequent on the diminished supply of oxygen, and he thinks that this has something in common with the state induced in Icelanders (who enjoy immunity for phthisis) by the free use of oils and animal fats or butter.

To these influences Lombard adds the effects of hydro-therapeutic treatment and of muscular exercise at the mountain sanatoria, along with the use of wine and fruit and nutritious diet.

Besides other objections that may be raised to Lombard's views, it is difficult to suppose that this real or supposed anæmia is a prophylactic of phthisis in the mountains, when we so often in the plains see anæmia to be a prelude of tuberculosis.

In the place of Dr. Lombard's anæmia, Dr. Gouraud would prefer to assign more satisfactory reasons for the beneficial effects of mountain climates in phthisis.

The purity of the air of mountains consists practically in the absence of all organic particles; and when we consider the effect of vitiated air in crowded workshops in producing phthisis, we can understand the prophylactic effect of mountain air. The transparency of the air which is dependent on its greater dryness, and the more powerful action of light, depending upon the same cause, aid materially the operation of the purity of the air. The effect of residence in the mountains on the dimensions of the chest is also worthy of careful consideration, and has been studied by M. Armieux, at Barèges, at a height of more than 3000 feet. He ascertained that in the case of ninety-six soldiers who were sent up to Barèges there was, after four months residence there, a distinct increase in the measurement of the chest. If this result be fully established, it is evident that it will have a very important bearing on cases of threatened phthisis in the young, and that a mountain climate is to be considered as favorable to the development of the thoracic cavity, and, consequently, as improving the respiration.

We thus understand how mountain air may be useful in certain cases and in certain periods of phthisis. It acts by its purity, by its dryness and transparency, as well as by the diminution of atmospheric pressure. Dr. Gouraud observes that these principles have only, or nearly only, been applied in Switzerland, and thinks that mountain stations for such cases might very well be selected in some parts of France.

He concludes by observing that after all neither barometer nor thermometer, neither hygrometer nor anemometer, can determine what is the suitable climate for such and such phthisical patient. All depends on the nature of his constitution, and on the way in which the various meteorological conditions affect him.—J. M. Epherson, M.D., in the *London Medical Record*.

HOSPITAL REPORTS.—UNIVERSITY OF PENNSYLVANIA.

Service of Prof. Louis A. Duhring. Reported by ARTHUR VAN HARLINGEN, M.D.

ECZEMA RUBRUM OF THE LEG.

The patient, who is suffering from eczema rubrum of the leg, has been before the class on a previous occasion, and, therefore, Dr. Duhring said he would not discuss the history of the case, but would make some remarks upon the treatment of eczema in general, and particularly of eczema rubrum. It would be, of course, impossible to go into all the details, but a general idea may be given of the methods to be recommended in the different forms of the disease. In the first place, regard must be paid to the circumstances of the patient. A plan of treatment which could be carried out in private or hospital practice, where every appliance is at hand, would not be practical among dispensary patients; we must always take this into consideration.

Eczema rubrum is a very common affection; we meet it every day, and it is frequently of long standing. This patient has been under all kinds of treatment, she says—internal and external, arsenic, iron, iodide of potassium, tar and other ointments, etc., etc.—until the entire round has been gone through. Under these circumstances it would seem at first sight difficult to suggest anything which had not already been tried and had failed. But remedies which may not succeed when used at the wrong time, and in an improper or careless way, may succeed when appropriately and intelligently employed. A careful examination of each case in all its aspects, should invariably precede the institution of any plan of treatment. The patient's general health should be inquired into, the locality of the disease noted, and the character of the skin affection examined. The fact of the acuteness or chronicity of the disease will decide whether one or another set of remedies will be appropriate.

The condition of the alimentary canal should be particularly inquired into, and, if at all abnormal, should be regulated by aperients—not purgatives. Among these, the natural mineral waters of Saratoga, and the German waters, now so extensively used, are useful. Indispensable practice, a preparation containing the sulphate of magnesium may be employed. A tonic combined with an aperient, such as is frequently prescribed in our hospital under the name of *mistura ferri acidi*, will be found of service. Its action, in the ordinary dose, is gentle, and can easily be regulated to suit the case. This mixture is adapted to a large number of cases and may be used for a considerable period, its action tending to improve the tone of the alimentary canal; it not merely opens

the bowels from day to day, but in fact tends to regulate them. Subsequently arsenic may be used, but in small doses, as a tonic. If used in large doses, with a view to some supposed specific action, it is apt to disorder the stomach and to do more harm than good. What is meant by a small dose is one or two minims of Fowler's solution three times a day. The treatment of eczema rubrum, in fine, should be general.

In many cases local treatment alone is all-sufficient. In the earlier stages of the disease, when there is considerable watery exudation, the following formula is serviceable:—

℞. Hydrarg. chlor. mitis, ʒ ss
Unguent. zinci oxidi, ʒj. M.

Or the following:—

℞. Bismuthi sub-nit., ʒ ss
Unguent. zinci oxidi, ʒj. M.

When the itching is severe, the following may be employed, whether the eruption be moist or dry:—

℞. Acid. carbolic., ℥x
Unguent. zinci oxidi, ʒj. M.

This will usually relieve the pruritus. Another ointment which generally acts very well:—

℞. Pulv. camphoræ, ad. ʒj.
Unguent. zinci oxidi, ʒj. M.

Half a drachm to a drachm of glycerine added to this will often prove advantageous.

All these may be called soothing applications, and are to be employed during the acute stages of the affection. They should be applied morning and evening, the excess of the former application being gently removed with a soft cloth previous to applying a fresh quantity. The accumulating scales should be removed from time to time, but the affected limb should not be washed often. It is not necessary, in the case of a limb like the one before us, to use very much ointment; a piece the size of a chesnut, rubbed well in for ten or fifteen minutes, is sufficient. The bandage is an important aid to treatment. When the leg is the part affected, the bandage should be closely, but not tightly, applied, beginning at the toes and covering the entire leg to the knee, and should be changed twice a day.

Another plan of treatment to be mentioned is that by means of *sapo viridis* and *unguentum diachyli*. This is, perhaps, the best method in most cases, provided the patient can be kept under control, and the treatment properly carried out.

"*Sapo viridis*," or green soap, is a greenish or brownish viscid soap, made chiefly in Germany, of potassa and various fats. It is also manufactured in this country, and has the advantage over the ordinary "soft" soap in general household use that its composition is

more uniform. It contains twenty to thirty grains excess of potassa to the ounce.

Unguentum diachyli is not contained in the United States Pharmacopœia, nor in the dispensatory; it is now, however, made pretty extensively, and is one of the formulæ contained in the University Pharmacopœia. It is made thus:—

℞. Plumbi oxidi, 3 iss
Olei olivæ, 3 viss.

The oil should be first mixed with water and heated; then, while fresh water is poured in and the mixture stirred, the litharge is gradually added.

The method of employing the *sapo viridis* and *unguentum diachyli* is as follows: A small piece of the soap, the size of a nut, is rubbed into the skin over the affected part, a little water being added from time to time, for ten to fifteen minutes. The effect produced by rubbing with the *sapo viridis* is the breaking down of any vesicles that may be present, and clearing away of the débris of epithelium, crusts, etc. The surface of the diseased skin under this procedure pours out an abundant fluid, and little bleeding points may be seen here and there. The skin is now washed thoroughly clean with warm water, and carefully dried with a soft towel; it is then ready for the ointment. This has been already prepared for use by spreading it thickly upon strips of soft linen two or three inches wide; these are now applied to the diseased surface and secured in position by a bandage. The pain caused by rubbing in the soap becomes quickly allayed, and relief follows. This application of *sapo viridis* and *unguentum diachyli* should occupy, if properly carried out, nearly an hour in its performance, and should be repeated morning and evening. It is useless to attempt this method of treatment unless it can be carefully carried out, and it is only applicable in cases where the disease is strictly local.

After two or three weeks of treatment, improvement, as a rule, ceases, and a change must be made. The following ointment is usually useful at this stage:—

℞. Picis liquidæ, 3j
Cerat. simplicis, ʒj. M.

or some other ointment, as the dilute nitrate of mercury, or red oxide of mercury ointment, may be employed. With one of these the cure of the patient can generally be completed.

Different patients will be found to vary as regards toleration of ointments. One will improve under an ointment containing four drachms of tar to the ounce, while for another half a drachm to the ounce is as strong as can be borne.

In regard to lotions, little has been said.

These are not often used in eczema of the leg—unless the disease be very acute.

It is worth careful study to be able to cure a case of chronic eczema rubrum of the leg. The disease is one difficult to treat unless thoroughly understood.—*Philadelphia Med. and Sur. Reporter*.

THE MANAGEMENT OF DIPHThERIC PARALYSIS.

The eminent Sir John Rose Cormack says on this subject, in the *Edinburgh Medical Journal*:—

Iron is particularly indicated in diphtheritic paralysis, as the patients are always anæmic. There are few cases in which its administration does not prove itself in an obvious manner to be useful in a high degree. Sometimes it is only borne in very small doses.

Nux vomica, either in the form of extract or the liquor strychniæ of the British Pharmacopœia, taken daily, with some ordinary combination of laxatives, such as the compound rhubarb pill of the British Pharmacopœia, ought to constitute a part of the treatment in nearly every case. It increases the peristaltic action of the intestine, imparts expulsive and retentive power to the bladder, and likewise has a general influence in improving innervation. The dose ought to be moderate, for large doses prove too exciting to the nervous system, and so tend to exhaust rather than invigorate its flagging powers. From half a grain to two grains of the extract once a day, with or without the occasional or constant addition of from five to ten drops of the liquor strychniæ two or three times a day, are suitable doses.

Local treatment is of the most importance, with a view to direct toward the wasted and wasting muscles a greater supply of blood, and thereby improve their nutrition. Occasional blisters act very beneficially in this way; but they must not be relied on to the exclusion of the constant use of stimulating pastes or liniments. I do not know of any local stimulant more efficacious, or better adapted for continuous use, than a ginger and mustard paste. The object of using the paste is to maintain a warm glow in the skin without vesicating it. The potency of the paste must therefore be proportioned to the susceptibility of the skin. By applying too powerful a stimulant to an extensive cutaneous surface, we may be obliged to suspend the local treatment, and so impede the progress of the cure. In some excitable patients who cannot bear long-continued counter-irritation of the skin, a gentle kneading of the paralyzed muscles three or four times in the twenty-four hours will be found useful as a means of directing a supply of blood to them. In such cases, after each kneading, a moderately stimulating liniment containing a small quantity of laudanum may be applied with great benefit. The laudanum prevents an un-

easy bruised feeling, which is often complained of after the kneading, and in irritable subjects is apt to induce restlessness and insomnia.

Galvanic excitement of contraction in the paralyzed muscles is often decidedly useful; but it is a measure which requires to be employed with moderation and at intervals of about twenty-four hours. If resorted to too early, or too freely, it exhausts the nervous power of the affected muscles.

DOG'S MILK IN RICKETS.

The *Gazette Hebdomadaire* states that it is the custom among the women of Montrun, in Dauphiné, to continue suckling for two years and a half to three years, with the idea of preventing another pregnancy; and if the infant dies, the mother either adopts another, or takes a puppy into her family to carry on the process. All these puppies suffer from rickets, which resembles exactly the rickets of children, except that the deformity is never afterward remedied. These observations, and the fact that the dogs always recovered under the influence of their own mothers' milk, induced M. Bernard to submit a rickety female child of twenty-six months to the dog's-milk cure. A powerful bitch was provided to act as wet-nurse for the child, and after from two or three months of this method of imbibing nourishment, the swelling of the epiphyses and the bending of the bones had notably diminished, the muscles were stronger, and at the end of the time the child could stand and take a few steps. The health of the patient was, at the end of one hundred days, extremely good; a slight curve of the femur and sternum being the only remains of the deformity, and the cure was permanent. He has adopted the treatment successfully in six other cases, and he expresses the belief that it will give encouraging results.

REMARKS ON APOPLEXY.

In a lecture on Cerebral Hemorrhage, in the *British Medical Journal*, Dr. Julius Althaus remarks:—

Among the various points which influence the issue of such attacks as just described, the *age* of the patient is a most important one. Clinical experience has shown that the young recover more easily from the complaint than the old; and the result of my researches on the mortality from this disease in England and Wales during the last forty years, enable us to give considerable precision to this point. A large number of infants die of apoplexy in the first year of age; but these are mostly cases of meningeal, and not of cerebral hemorrhage. Of the latter there are hardly any instances between the first and fifteenth year of life; after fifteen they are "few and far between"; but at thirty-five there

is a perceptible increase, and the numbers then gradually swell, until they reach an immense maximum, between seventy and seventy-five years of age. Between seventy-five and eighty the mortality from this complaint is still very large, while after eighty a rapid fall sets in; but, considering how few people are still alive at eighty and the subsequent periods of life, the fatality of cerebral hemorrhage does actually increase rather than diminish as age advances. I am, therefore, able to state in general terms that cerebral hemorrhage is of slight significance up to thirty years of age; that its fatality increases *pari passu* with years; and that the greater the age the less is the probability of recovery from cerebral hemorrhage.

While, therefore, age must, in every individual case of this kind which may come under your observation, largely influence your opinion about the patient's prospects, you should know that sex has no influence at all. It is true that it has hitherto been generally assumed that males are more liable to die of apoplexy than females; but my investigations of this point have conclusively shown that such is not the case; that the sexes die in almost equal proportions of the disease; and that the slight excess which is found to exist is for women and not for men, the proportion in two hundred thousand consecutive cases being 1000 for males to 1009 for females. From this you will perceive that for the purpose of prognosis sex is devoid of practical importance.

The *constitutional condition* of the patient has, on the contrary, a most important bearing on prognosis. Where cerebral hemorrhage occurs from leukæmia or contracted granular kidney, the prognosis is unfavorable. Gout and syphilis are likewise undesirable complications, while the absence of constitutional faults will, *cæteris paribus*, render the patient's prospects more hopeful.

Finally, *treatment* may incline the balance towards recovery or death. The treatment by venesection, which was formerly much in favor, was thoroughly irrational, and generally followed by disastrous results; indeed, many patients have died of the remedy rather than of the disease. Venesection has lately fallen into disuse; but the condition of the brain during cerebral hemorrhage is not one of congestion, as was formerly believed, but of anæmia; the organ not only loses blood largely, but is also, from compression of its arterioles through the clot, unable to receive a fresh supply of the reviving fluid; death in this disease takes place chiefly from anæmia; and, by resorting to phlebotomy, you simply increase cerebral anæmia still further, and thereby hasten the fatal result. *Escher's lancet, therefore, as a deadly instrument in these cases.*

A simply expectant plan of treatment is recommended by the most recent writers on the

disease; and there can be no doubt that abstaining from all active interference is far better than to bleed your patient. Molière, on his death-bed cried out to his doctors: "Laissez-moi mourir, mais ne me tuez pas!" and the expectant plan of treatment certainly does not kill the patient, it only allows him to die. In spite, however, of recent authorities for doing nothing, a more active mode of treating cerebral hemorrhage seems to me to be called for.

Your object must be to arrest the further effusion of blood from the ruptured coats of the miliary aneurisms, by causing the vessels to contract. Now, many styptics must be inapplicable for these cases, because the patient cannot swallow, and even if medicines were introduced into his stomach, it seems most doubtful whether they would be absorbed. Nor can the rectum be used for the purpose of affecting the circulation, as there is frequently paralysis of the sphincter ani, and inability of the bowel to retain its contents. The hypodermic mode of administering medicines seems, therefore, to recommend itself, particularly in these cases; and the remedy I think most appropriate for them is ergotine.

There are two kinds of ergotine known to chemists, viz., Wigger's and Bonjean's. The former is insoluble in water, ether, and dilute acids, but soluble in alcohol, strong acetic acid, and caustic potash; and, on account of these peculiarities, it is not suitable for subcutaneous injection. Bonjean's ergotine, on the other hand, is easily soluble in water, and it is this therefore which you should use. I am in the habit of injecting a grain of it every hour, or where the symptoms are very urgent, even every half hour, into the subcutaneous cellular tissue; and, although the experience of a single observer, in a disease like the one now under consideration, cannot count for much, yet I feel justified in recommending you to follow this practice, as being likely to save many lives.

TREATMENT OF CROUP.

"I will mention those remedies which are most frequently used, and which generally prove successful, with a view to show the contrast of these two diseases throughout, rather than to hope to benefit you by any new suggestions. The first effect which we most desire is free emesis, which, if taken in time, gives instantaneous relief. Among the various remedies first and mildest is ipecacuanha, either alone in powder or syrup or combined with tartarized antimony. Mustard is very efficacious, the pulverized sinapis of the Pharmacopœia, in teaspoonful doses given in water. The various nauseating oils are resorted to often with good effect. Last, and perhaps best of all, is powdered alum and syrup, equal quantities of each, given for effect, it may be in teaspoonful

doses every five minutes, until free vomiting of the membrane is produced. When the emetics do not prove satisfactory, cathartics and absorbents are resorted to. Calomel and soda are very beneficial combined together in small doses and frequently repeated. Local applications in croup are very efficacious. Perhaps after the first emetic the child should be put in a warm bath of 96° containing salt and mustard, and, after remaining about ten minutes, taken out, wiped dry, and wrapped up in warm blankets. The counter-irritating action of mustard, if taken early in an attack, acts almost like a charm in its prophylactic effect. Spiritus terebinthinæ is also well worth resorting to, both as an irritant and resolvent, in the rapidity with which it is absorbed into the system. Blisters are not necessary nor considered efficacious, as being too slow in their effects. After all the prompt appliances have produced as much irritation as is tolerable, an after-application of an unctuous nature, such as lard and snuff combined, should be worn over the breast for some time, as the disease frequently manifests a disposition to return about the same time for three or more successive days. The patient must be carefully guarded against any change of temperature or vicissitude that might provoke a return of the disease. After the choking paroxysm of the disease has passed away, the patient should take an expectorant to allay the remaining irritation and cough. Perhaps as good a combination as might be suggested for this purpose would be a mixture containing equal parts of syrup of senega, squills, ipecacuanha, acacia, and paregoric. In a few days all the symptoms will disappear, and the patient will be well and hearty."—*Annales de Gynécologie.*

TREATMENT OF DIPHTHERIA.

"I will not stop to enumerate the long list of remedies used, but will confine myself to the method which I have adopted, and with such evident success that I feel glad to announce to any of you who have not followed the same line of treatment that you will be compelled to say 'Eureka.' I am sure I feel quite as enthusiastic in the success of the treatment which I propose to lay down as one of our number is in the treatment of variola with milk-punch and egg-nog. If you are permitted to see the patient within the first few hours of the attack, commence your treatment at once with quinine and aromatic sulphuric acid in doses suitable to the age of the person receiving it. Give freely of solution of chlorate of potassa, as a disinfectant, and perhaps you will not be required to administer any other remedies. If, however, the membrane has become so thickly deposited as not to be affected by the acid and chlorine, you should apply with your own hand a mop,

properly made, saturated with the liquid persulphate of iron, and literally swab out the throat until you remove every particle of membrane. Let this be repeated two or more times each day, or as often as the membrane would continue so to be reproduced, and you will have the satisfaction of seeing your patient make a speedy recovery without any of the consequent sequelæ. I took my first hint of the sulphuric acid treatment from a short extract which I clipped from a paper coming from a doctor in Australia, where the disease was producing such extensive ravages that the government offered a large reward for any certain method of cure. I will quote from the paper: 'It is simply the use of sulphuric acid, of which four drops are diluted in three fourths of a tumbler of water to be administered to a grown person, and a smaller dose to children, at intervals not specified. The result is said to be a coagulation of the diphtheritic membrane, and its ready removing by coughing. It is asserted, where the case thus treated has not advanced to a nearly fatal termination, the patient recovered in almost every instance.' This suggested to me the treatment which I have already announced; and from the experience of entire success which I have had in the last two years in not having one fatal case during that time from that disease, where I had the treating of the case from the beginning, I do not hesitate in declaring it as my opinion that quinine as an eliminator of the poison from the system, and sulphuric acid as a detergent to the throat, are decidedly as much a specific for diphtheria as quinine is for intermittent fever, or iodide of potash and bichloride of mercury are for tertiary syphilis."—*Ibid.*

THE TREATMENT OF SCROFULOUS OPHTHALMIA

Mr. H. C. Lawrence (*Medical Press and Circular*) says: "The marked digestive derangement has benefited from a mercurial purge, followed by a course of non-mercurial aperients until the evacuations become normal; next a plain, nourishing, and unstimulating diet, to which milk contributes largely, is beneficial. Meat should not be given too freely. Most of the patients are ill-nourished when serofulous ophthalmia manifests itself; partly from poverty, partly from digestive imperfections. To feed these two generously virtually promotes starvation; the fuel becomes excessive for the combustion power of the invalid. Cod-liver oil requires regulation in use. Instead of regarding it as a specific, my own experience has led me to consider it hurtful in some cases. The cases for its use and non-use may be differentiated thus, as Sir William Lawrence and Niemeyer have noted: 1. The 'torpid' constitutions, who are clumsy and thick-set in build, and exhibit a tumid upper lip and enlarged

nose, and have abundance of adipose tissue; by these cod-liver oil is not required, and it may prove injurious to them. 2. The 'erethitic,' with slender frame, lack of fat, and accelerated pulse, and over-active nervous system largely benefit from the use of cod-liver oil. These cases have procured for it the name of an antiscrofulous remedy. (Niemeyer.) The photophobia has been relieved at first by the use of bromide of potassium, and the relief maintained by the administration of quinine. Quinine employed after potassium bromide has appeared more efficacious than when used alone. Relapses of intolerance of light have yielded to similar treatment. Fresh air, and plenty of it, is imperative. Cold shower-baths in summer, sponging with tepid sea-salt water in winter, have proved valuable auxiliaries. For local treatment, a green shade, made like the peak of a rifle-cap, is preferable to one fitting close to the eyes, the latter being injurious. Padding of the eye with cotton wool to prevent friction of the lids appears to me neither necessary nor advantageous; equally good if not better results having followed frequent poppy fomentation instead, allowing free exposure to air, with shade from light. When the acute symptoms have subsided, the utmost possible benefit has ensued upon the use of poppy fomentation used as a douche to the eye, at first warm, then tepid, ultimately cold. The spasm of the orbicularis oculi seems to be much lessened thereby. Counter-irritation in the form of linimentum iodi painted behind the ear is preferable to blistering. Scrofulous constitutions resent blisters, secondary cutaneous eruptions and swelling of the neighboring glands being apt to follow. Frequency of counter-irritation, however, short of producing a breach of skin and glandular enlargement, seems not only indicated, but is found practically to be very useful. Nitrate of silver has proved itself injurious when applied to the conjunctiva in serofulous ophthalmia, and solution of atropine less useful in allaying irritation temporarily than frequent anodyne fomentation. Atropine should be reserved to insure dilatation of the pupil when necessary. Iron is preferable to quinine in marked anæmia, but I have not sufficient evidence to prove its greater efficacy over quinine in promoting repair and nutrition in ulceration of the cornea, as some authors assert, while quinine exerts a marked effect in lessening the photophobia serofulosa."

RADICAL CURE OF HYDROCELE WITH INJECTION OF CARBOLIC ACID.

Rah. Allg. Med. Central-Zeitg.

Instead of the customary puncture and subsequent injection with iodine-tincture, which always produces pain and confines the patient to bed for some days, Prof. Hüter recommended an injec-

tion of carbolic acid, two per cent. The author has tried this method, and recommends it highly. There was no pain whatever, either during or after the injection; the patient took a walk immediately after, and would not stay at home on the second day. On the fifth day there was no swelling or tenderness, and the hydrocele could be considered cured. This plan of treatment, therefore, surpasses all the previous ones in painlessness and radical cure, and is, therefore, warmly recommended by the author. E. F.

TREATMENT OF ORCHITIS.

Dr. John K. Spender in the Medical Examiner, August, 1876, calls attention to the possibility of curing orchitis without surgical interference. The plan he adopts is to administer antimony in small and repeated doses for at least twelve or fourteen hours. He narrates a case of a young man who had received a blow on the left testicle, and who was seen a few days afterward. Recourse was had to hot local applications, and a draught containing twenty minims of antimonial wine, with two minims of tinct. opium in an ounce of spearmint water, was directed to be taken every hour for twelve hours, then gradually at longer intervals. Pain was relieved simultaneously with the establishment of a profuse diaphoresis. Within three days the man was virtually well. The same mode of administering other drugs may be adopted with benefit, as in many cases success depends upon keeping the medicine constantly in the system.—*The Doctor*.

HYDRATE OF CHLORAL IN PUERPERAL CONVULSIONS.

Dr. Chouppe, having had the opportunity of observing carefully a considerable number of cases of puerperal convulsions, has come to the conclusion that, of all the means we possess, the hydrate is the most reliable for treating this disease. In twelve cases in which it was alone employed the termination was successful, although in some of these the state of things seemed desperate when it was commenced. He thinks, indeed, that it should be resorted to even before the disease becomes confirmed, whenever the woman, exhibiting albuminuria and oedema, complains of headache, ringing in the ears, hallucinations of vision, restlessness, cramps, or vague pains in the limbs, etc. When there is trismus present it should be given in enemata, which have also the great advantage of being able to be given during the paroxysm. The doses will vary according to the tolerance of the patients and the severity of the paroxysm, but it is necessary to commence with a pretty strong one (especially if the paroxysms are violent and close upon each other), in order to make a powerful and quick impression.

After a calm has been obtained, and if the attacks do not recur, some smaller doses may be given during the next twenty-four hours or so; but if the attacks recur large doses must again be resorted to until the paroxysms have completely ceased. In an enema we may always begin with thirty grains, repeating this at the end of ten minutes; and by the mouth at least forty-five grains should be given at once, fifteen grains being repeated every quarter of an hour. In a violent attack the dose required will vary from one hundred and twenty to one hundred and eighty grains; and it may even be requisite to resort to hypodermic or intravenous injection. In all cases it is of importance to get at least sixty grains rapidly taken, and to prolong the use of the chloral for a tolerably long time after the cessation of the convulsions.—*Gazette Med.; Amer. Jour. Med-Sciences*.

ACTION OF SALICYLIC ACID IN DIPHThERIA.

L. Letzerich states that diphtheritic organisms (fungi obtained from the urine of children suffering severely from diphtheria, and consisting of bacteria, masses of protoplasm and micrococci) placed in a close vessel with solution of salicylic acid containing 0.35 of the acid, one part of spirit and 59 of water, when examined after an interval of five months, were all found lying dead at the bottom of the vessel. A few drops of weak solution of salicylic acid (of about one-third the above strength) brought into contact with diphtheritic organisms arrested the movements of the bacteria present, gradually; stronger solutions arrested them suddenly. The plasma corpuscles lost their brilliancy and acquired a double outline, as if they were surrounded by an extremely delicate membrane; the substance of the protoplasm appeared to contain bubbles of air. Letzerich treated seven cases of diphtheritis with gargles of salicylic acid, and all of them successfully. In two other instances powdering the surface with a little dry salicylic acid proved very effective. From these and other observations and experiments he believes that salicylic acid is a powerful and anti-diphtheritic agent.—*Centralblatt für die Chirurgie*.

TREATMENT OF OTORRHOEA.

Paulsen* claims to have met with excellent results in the treatment of otorrhoea, uncomplicated by caries or large polypi, by means of a mixture of carbolic acid and olive oil, ten parts of the former to one hundred of the latter. He has found it much more effective than astringents or other methods which he has tried, and the combination of the acid with the oil was

* Monatschrift für Ohrenheilkunde, No. 2, 1876.

much better than the acid with water. His method of application is to cleanse the ear thoroughly by cotton or a probe, avoiding syringing unless it is absolutely necessary, and then, dipping a tampon of cotton in the solution to apply it to the secreting surface and there leave it till the next day, when the same process should be repeated. In this way he has succeeded in relieving obstinate otorrhœas even when complicated by small granulations.

Politzer * gives a résumé of his experience in the use of caustic solutions of nitrate of silver in the treatment of otorrhœa, as recommended by Schwartz. He had already found concentrated solutions of nitrate of silver useful in the destruction of granulations in the external meatus and on the drum-membrane, but weak solutions he found of comparatively little value in simple chronic suppuration. Stimulated, however, by Schwartz's publications of 1868 with regard to the caustic treatment of purulent aural catarrh, in which solutions of twenty grains of the salt to an ounce of water were used, he was led to try this in simple, uncomplicated otorrhœa, and now advises the use of even stronger solutions than those of Schwartz, namely, one part of the salt to ten or eight of water. Great stress is laid, however, on the method of application, and it is probable in practice that failures often result from the want of attention to these minutiae and from the lack of personal attention on the part of the physician. Above all it is important that all secretion be removed from the middle ear by inflation, either with the Politzer-bag or by the catheter, and that then the meatus be thoroughly syringed out; this being done, the meatus must be carefully dried by pledgets of lint or cotton, in order that the solution may come in contact with the diseased mucous membrane. Any secretion left in the ear will unite with the silver to form an albuminate of silver.

For cauterizing the middle ear ten to fifteen drops of the solution should be poured into the ear with the head inclined to the opposite side; if the drum-membrane is largely destroyed, the solution readily finds its way into the tympanum; if, however, there is but a small perforation, it is necessary to inflate the tympanum or else to force the solution into the cavity by pressing the tragus down against the meatus. The only unpleasant results met with in these applications were smarting in the pharynx when the solution ran down the Eustachian tube, and a dizziness produced by the pressure on the labyrinth: the former passes off in a few hours, and the latter is relieved by inflation of the tympanum.

It is necessary that the solution should remain in the ear long enough to produce a decided slough of the membrane, and for this purpose one to two minutes is sufficient. A less time than that merely produces a grayish sediment

from the union of the silver with the epithelium and mucus, and this comes away in a few hours at the longest, while an effectual slough does not come away for twenty-four hours or even longer. The superfluous solution, after producing the slough, should be syringed out. Neutralization by means of a solution of salt, as advised by Schwartz, is not considered necessary by Politzer. The action of these concentrated silver solutions in checking the discharge is less dependent on the duration of the disease than on the condition of the mucous membrane and the general health, and it is also more certain where there are no granulations, although Politzer has seen such granulations disappear very rapidly under this treatment.

Schwartz's claims that a nearly certain cure followed the use of the caustic applications where the otorrhœa was uncomplicated are not confirmed by Politzer, but in cases where it was used and failed to check the discharge he has afterwards frequently obtained a good result from the insufflation of pulverized alum in minute quantities, and he considers the combined use of the concentrated silver solution and the powdered alum as the most effectual method of treating chronic suppuration of the middle ear. He recommends that, if after eight or ten applications of the caustic, the secretion does not diminish, the alum be used.

The same care should be used in applying the powder as the silver; the ear should be thoroughly cleansed and dried and the powder blown in in small quantities against the secreting surface, the physician satisfying himself by inspection that the surface is covered white. If the secretion is not profuse, the powder will remain in the ear at least two days, and if on the third day the powder still remains dry and in position, it is recommended not to syringe the ear, but to allow the powder to chip off of itself. If, however, the powder has become moist, the ear must be thoroughly syringed to free it from the masses of alum and secretion which occasionally adhere so firmly as to require also some careful manipulation with the probe for their removal. As experience teaches that, frequently, by the day after the syringing the secretion has ceased entirely, it is advisable not to make the next application till satisfied by waiting that the discharge still continues.

CALOMEL.

Dr. Duckworth, in *Practitioner*, says: "I am satisfied that in many minor disorders of children nothing can take the place of calomel as a purgative, and much time is often lost by beginning with drugs that are accounted more simple. The only medicine that appears to me to approach calomel in value is castor oil; but this is constantly a source of trouble from its disgusting character. I find that calomel is distinctly preferable to gray powder as a purgative, just as for

* Archiv für Ohrenheilkunde, ii. 1.

other purposes strychnia is to milder preparations of nux vomica. Its action is smarter and more decided. It has also the great merits of being tasteless and of exciting no nausea, and its bulk is small. In strumous children, or in healthy ones who suffer occasionally from gastric catarrh, with tenderness and some torpidity of the liver, no medicine is comparable to a purgative containing calomel. After its action a copious bilious stool or two are passed, the tongue is observed to become cleaner, the feverishness pertaining to this state subsides, and the child becomes brighter, and has restored appetite. A so-called simpler treatment with soda and citrate of potash will often fail to yield these results, and so, too, will repeated doses of rhubarb and senna."

TREATMENT OF ALBUMINURIA.

Dr. Hall, after the clinical use of various forms of medication in albuminuria, sums up his experience and theory for treatment in the following words; Dr. Southey attributes the success of the employment of the tartrate of potash in Bright's disease to the abundant diuresis of alkaline urine..... I am speculative enough myself to imagine that an alkaline fluid, passing through the urine tubes, has some similar action to that of weak soda or potash solutions upon sections of dead kidney-tissue under the microscope. I mean that fat granules are saponified, cells are rendered more translucent, the interstitial tissues become looser, and the circulation is thus facilitated..... As a general rule, far too little attention is paid by the medical attendant to the diet of the patient; that is to say, the directions given are vague in the extreme; but in acute albuminuria, as in typhoid fever, any indiscretion in the food may be visited with the most severe punishment; an attack of convulsions may be caused by excess, just as I have seen perforation result from taking solid food too early in typhoid fever. I would sum up the treatment of acute Bright's disease in the following words:

"1. Milk and water with arrowroot; no solid food.

"2. Mild diuretics, such as the citrate or bitartrate of potash, with a free supply of water.

"3. The skin to be kept just moist.

"4. A daily evacuation of the bowels."—*Boston Journal.*

NESTLÉ'S FOOD FOR BABIES.

BY C. P. PUTNAM, M.D.

During last summer the attention of a number of physicians in this neighborhood was called to a food for babies, little known here, Nestlé's Lacteous Farina, made in Vevey, Switzerland, the use of which has some decided advantages, in spite of its not being the perfect substitute

for mother's milk which every patent food claims to be.

Mr. Astié, the agent for the food in New York, brought with him to Boston recommendations from various sources, and some experiments with it have been published in foreign journals, to one of which I shall refer later. More or less of the food had been sold in Boston in preceding years, but until this summer apparently little or none since it has been packed for transportation in tin boxes, which alone are said to be sure to protect it from spoiling during the voyage from Europe.

In one respect the food has a practical superiority over all the numerous food that are in common use here, namely, it comes in a dry form, and yet only water, no milk, is required in preparing it for use. It is well known that bottle-feeding is made difficult almost more than in any other way by the changes that milk undergoes either at the hands of the milkman, or under atmospheric influences, or from want of care between the time when it leaves the cow and the time when the last of the evening's or morning's supply is given to the baby.

Although water only is used in cooking the food, it consists almost entirely of milk in the form of powder, mixed, as is claimed, with bread baked for the purpose, of the best flour, of which only the most nutritious part, the crust, is used. The milk is brought fresh from large dairies belonging to the manufactory at Vevey, and, having been tested, is poured into steam-heated vessels and condensed in a vacuum at a nearly uniform temperature, not above 120° F. The powder of milk and bread crust which results is very fine. Lebert says that he found grains $\frac{1}{100}$ of an inch in diameter, and that grains of starch were found only in fragments.

In preparing the food for use, one part is mixed with from six to ten parts of cold water, which is then boiled while stirring. This cooking may be intrusted with comparative safety to unskilled hands,—a very important matter,—for the food has no tendency to ball or cake, as farinaceous substances are apt to do, and it is not likely to burn. It is not even necessary to begin by making a smooth mixture with a portion of the water,

Ehrendorfer, assistant in Monti's poliklinik in Vienna, reports* that this food was given to twenty insufficiently nourished and forty sick children from five to twenty months old. Of these, fifty-one continued to take it until they were well, while with nine it was discontinued either because they did not like it or because they did not improve. Medicine was also given in these fifty-one cases, but the good results were attributed largely to the food.

Ehrendorfer concludes that the food is especially valuable in making up for a deficient supply

* Jahrbuch für Kinderheilkunde und physische Erziehung, 1874.

of mother's milk, and that it is also often serviceable in cases of diarrhoeal diseases (the less so the younger the child,) especially in diarrhoea consequent on weaning, when the most striking results appear to have been attained.

He compares this food, though in an indefinite way, with fresh country milk, with Liebig's food, and with condensed milk, and expresses the opinion that no one of them possesses decided advantages over the others. It would seem, however, that, whatever might be the result of more extended experiments he had hardly done justice to his own experiments as they stand, for one could not expect to give any substitute whatever for mother's milk to sixty babies taken as they come, and find it succeed with as many as fifty-one of them.

Monti has given the food to very young children in private practice, and is of the opinion that it is not appropriate for children under six weeks of age. We do not hear, however, that it did not suit any children under that age with whom it was tried, and the statement as it stands is of so universal application to all artificial foods that it does not seem certain that it shows a peculiar property in this one.

I have given the food to a good many children with essentially the same result as that reported by Ehrendorfer. Generally it was well liked and well borne; occasionally it was not retained by the stomach, or was not liked by the baby. My impression is that it is not likely to be successful as often as Liebig's food, when the latter is made entirely in the kitchen every day and not from an extract, but the difficulty of making it in this way count sadly against it. It is hardly necessary to say that Nestlé's food is not going to prove a perfect substitute for mother's milk; few of us expect that of any artificial food.

It is, however, fair to recognize that it is supplied in compact form, is easily cooked, is comparatively safe from the accidents from which milk often suffers, especially in the city; that most babies like it, and that it generally does not disturb the digestion, and is nutritious.—*Boston Medical Journal*,

WHEN AND WHY WERE MALE PHYSICIANS EMPLOYED AS ACCOUCHEURS?—

Dr. Wm. Goodell (*American Journal Obstetrics*, August, 1876), in a very interesting paper answers the above question. It was just subsequent to the discovery of the art of printing that male physicians began to act as accoucheurs, and thus destroy the monopoly of midwifery by midwives. The reason for this change seemed to lie in the fact that the people became wiser, and read more books, so that they could appreciate the ignorance of the midwives. Physicians developed with the times, the midwives did not. The former wrote elaborate works on obstetrics, which the latter, with rare exceptions, could not even read. What more natural than

that intelligent women should prefer the teacher to the unskilled pupil—should place their lives in skilled hands rather than in those which were unlettered. What more inevitable than that the male physician who was hurriedly sent for in cases of emergency, or was kept waiting in an ante-chamber for such emergency, should, despite tradition, prejudice and religion—should, in spite of himself, for it was long deemed dishonorable for him to practice midwifery, ultimately usurp the place of the midwife by the bedside of the woman in travail?

A SIMPLE METHOD OF TREATING UMBILICAL HERNIAS IN INFANTS.

M. Archambault has for some time past employed with gratifying success the following plan in the treatment of the umbilical hernias of infants. A piece of white wax is softened, and fashioned with the fingers into a ball, which is then cut in two, so as to form two hemispheres. One of these hemispheres, which must be of a size proportionate to the umbilical ring, is applied to it in such a way that its spherical surface securely fills the opening, and is then retained in position by a strip of plaster. Instead of wax we may use gutta-percha, previously softened in warm water. Both of these substances, about two hours after their application, become sufficiently softened to adhere to the skin. If the plaster excite cutaneous erythema, it should be removed every two days, and the skin powdered with rice-powder.—*Le Bordeaux Medical*, September 12th.

FAT MEAT AS AN EXTERNAL APPLICATION.

In the *Virginia Medical Monthly*, Dr. W. T. Ennet, of North Carolina, relates the following experience in diphtheria:—"My aunt, who, was in Hartford two years ago, when the disease was raging so terrifically there, being at my house this summer, when it was killing whole families in Wilmington, and was also terribly fatal to the surrounding country, asked me to try the Hartford doctors' treatment, which was the same as ours, with the exception of external application of 'fat meat.' I could not nor cannot see the virtue, but promised to try it; I used it, and my patient got well. I still did not look upon it as affecting the disease at all. I used it again and again, and the patients all got well. I tried to study out some physiological action, but could not. I wrote to an eminent physician in Hartford, and he writes me, 'We regard it as an old woman's remedy; but the doctors all use it, and since its use the mortality has not been more than one-third. What is it and why it is, I don't know; but might it not have some antidotal action on the poison?' Since then, I was called in consultation in the adjoining neighborhood, where the attending physician had lost three or four in the one family, and another patient was

almost dead. I was almost ashamed to recommend my fat meat, but I did it, and the child got well. Of course, we used all other necessary treatment. I certainly did not rely upon it alone; but, as it cannot possibly do any harm, I shall continue to use it as an external application."

Professor J. Lewis Smith, of New York, considers fat salt pork to the throat very valuable in anginose scarlatina. He finds it a safe and efficient counter-irritant, so decided in action that some skins cannot support it but for a short time.

THERAPEUTIC NOTES

QUININE INJECTIONS IN SUNSTROKE.

The experience of last year in India, and of this summer in this country, speaks strongly for the value of hypodermic injection of quinine in sunstroke. Five to ten grains may be thrown under the skin, of course using the cold douche, etc.

FOR BURNS.

R. Glycerine,	v
White of egg,	iv
Tincture of arnica,	iiij.

Mix the glycerine and white of egg intimately in a mortar, and then add gradually the arnica. Apply freely on linen cloths night and morning, having previously washed the burn with Castile suds.

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MONTREAL, NOVEMBER, 1876.

We understand that the amendments to the present Act, desired by the College of Physicians and Surgeons of Lower Canada, have been put into shape and placed in the hands of Mr. Loranger, who will introduce them to the House. Petitions in their favor have been, and, as we write, are still being very numerously signed in the cities and leading towns of the Province; but in the country, it is a difficult matter to get at scattered practitioners. Circulars have, however, been sent out by Dr. Fenwick, the Registrar of the College, to all members and licentiates, asking for authority to

attach their names to the petitions. The reply to this appeal has not been as large as we desire to see; but this is due, we know, not to any objection to the petition—at all events in the majority of cases—but simply to carelessness. If these lines should be read by any who have received the circular alluded to, we hope they will at once give the necessary authorization to have their names attached. We do not really know what measure of opposition will be offered these amendments, or whether the supporters of the Medical Bill, introduced last Session and advanced two stages, will press it to its third reading. We, however, trust that they will see the wisdom of withdrawing, and of leaving to those who for the past thirty years have, in their corporate capacity, been the legal custodians of the profession of this Province, the duty of seeking such alterations in the Act of Incorporation as the change in public sentiment demands. We are informed that opposition to the College amendments was offered to be withdrawn, provided the clause in the old act, enforcing on licentiates of the College four years of probation before becoming eligible for election as members, was expunged, and all licentiates of the board allowed to become members at once upon the payment of a merely nominal fee. We are glad to be informed that such a proposition was rejected, for its absolute unfairness, not to say anything of its inadvisability, must be apparent. Especially at this time is it essential that the management of the College should be entrusted to members of the profession, who, by their age, professional standing, and general reputation shall command alike the confidence of the medical profession and the public. We have not as yet in the Dominion attained the length of manhood suffrage, and we hesitate not to give it as our very strong opinion that anything approaching universal medical suffrage would at this moment, and for the matter of that, at any moment, result most disastrously to the interests of the profession in this Province. We must remember that other eyes are upon us, and that if we wish to obtain reciprocity with other boards, a certain amount of conservatism is necessary. Licentiates of four years are now eligible for election. This, after thirty years of experience, is still considered by those best qualified to judge to have been a wise provision, and its continuance

is asked for. We see every reason why this request should be granted by the Legislature—none why it should be disallowed. We are hopeful of the result, for we cannot believe that our Provincial Parliament will deliberately ignore and cast to one side a body so respectable,—not alone from its legal status, but from its composition, embracing, as it does, representative men in their various sections. With the active support of the Hon. Dr. Church, the Treasurer of the Province and one of the Governors of the College; of Dr. Cameron, the member for Huntingdon, and other medical men in the House, we believe the wisdom of the amendments will be appreciated. We, however, advise the most active work and watchfulness on the part of every one interested.

In our account of the International Medical Congress in our last issue, by inadvertence we stated that the chairman of the section of Dermatology and Syphilology, was Dr. James C. White, of Buffalo. This is an error, as Dr. White resides in Boston. The error arose from confounding the chairman of this section with Dr. James P. White, Professor of Midwifery in the Buffalo Medical College, who was present at the Congress, took an active part in its proceedings, and was, in conjunction with Dr. Joliffe Tuffnell, of Dublin, one of the "big men" of the Congress.

COURTESY.

We have to thank Dr. H. W. Nelson, of Sacramento, California, for a number of very interesting medical pamphlets, which we have read with much pleasure. We are sorry we did not see Dr. Nelson during his visit to Montreal.

PERSONAL.

Dr. Edmond Robillard, of Montreal, one of the Governors of the College of Physicians and Surgeons of Lower Canada, left Montreal on the 14th November, for an extended trip in Europe. We understand that Dr. Robillard will pass the greater portion of the winter in Paris, but, before returning, will visit the principal places of interest on the continent and in Great Britain. He will not return before next June or July.

We regret to hear of the illness of Dr. James Hall, (M.D., McGill College, 1866,) of Magog, Q., son of the late Dr. Archibald Hall, for many years professor of obstetrics in McGill University. Dr. Hall intends passing the winter in Colorado.

Dr. McMillan, (M.D., McGill College, 1860,) late of Rigaud, Que., has removed to Montreal and commenced practice.

Dr. W. Smith (M.D., McGill College, 1876,) has commenced practice in Montreal, as has also Dr. Hayes, late of Dublin, Ireland.

Dr. Duncan (M.D. McGill College, 1874) is serving as surgeon on the Allan Line of Mail Steamships.

Dr. Hunter (M.D., Bishop's College, 1874) is practising in Ottawa.

Dr. E. A. Duclos (M.D., Bishop's College, 1873) has removed to St. Pie.

Dr. Cattnach, (M.D., McGill College, 1871,) has resigned his position on the Allan Line of Mail Steamships. He returns to England the end of November, to devote a short time to hospital attendance.

Dr. Thomas Laycock, physician to Queen Victoria, died in London recently. Dr. Laycock was born in New York in 1812, and studied his profession in the most advanced schools of London, Paris and Gottingen, at the latter of which he graduated as Doctor of Medicine and Surgery. In 1855 he was appointed Professor of Practice of Medicine in the University of Edinburgh; in 1869, Physician to the Queen in Scotland, and at the same time was lecturer on the Practice of Medicine in the York Medical School. He suggested the commission to report upon the health of towns in England; sketched a plan for state medical operations, and wrote several important papers on medical topics.

—The well-known house of Macmillan & Co., London, publishers of the *Practitioner*, have undertaken the publication, in England, of "Microphotographs in Histology," the monthly work published at Philadelphia and conducted by Drs. Seiler, Hunt and Richardson. A large edition is required by the English profession.

Atlas of Skin Disease. By LOUIS A. DUHRING, M.D. Part I. Published by J. P. Lippincott & Co., Philadelphia. Montreal: Dawson Brothers.

Skin diseases,—many of them at least,—are extremely difficult to diagnose; and it is said by those who profess to be judges in this matter, that, at all events in this country, this difficulty is increased by the fact that this class of affection is usually studied from plates, published either in Great Britain or the continent. These do not give a true idea, as a rule, of the diseases as they are met with in America, climate, apparently operating so as to materially change or modify in many respects the chief peculiarities of the disease, while new varieties are met with. The purport of this work is to produce an atlas of skin diseases as they are seen in this country, and if succeeding parts are equal to the one now before us, the Messrs. Lippincott are about to produce a work of the greatest possible value. Part I. contains four plates with letter press descriptions, viz. :—

Eczema (Erythematosum),

Psoriasis, Lupus,

Erythematosus, and

Syphiloderma (Pustulosum).

Each of these is executed in a nearly life-size chromo-lithograph, painted from life. The Atlas will be published quarterly.

A Manual of Midwifery. By Alfred Meadows, M.D., London, F.R.C.P., Physician Accoucheur to St. Mary's Hospital. Second American, from the third London edition, with one hundred and forty-five illustrations. Philadelphia: Lindsay & Blakiston. Montreal: Dawson Brothers.

This volume is exactly what it represents itself to be by its title page, and that is more than can be said of many volumes. It is a manual, easily handled, and briefly expressed; contains the essence of the theory and practice of Midwifery,—couched in good language and in a pleasant style. For students or for practitioners constantly engaged in practice, it is just such a work as we can confidently recommend. It is illustrated by a number of wood cuts, which enable students to more readily understand some of the difficult points.

Medical Thermometry and Human Temperature. By E. Seguin, M.D. New York: William Wood & Co., 27 Great Jones Street. Montreal: Dawson Brothers.

It seems almost useless for us to recommend, in the strongest possible terms, this volume to our readers, but we do so, however, and hope that every one who reads this paragraph will obtain the work. We consider a medical library as incomplete without it as is a medical man who attempts to treat disease without the use of the thermometer. The volume opens with an historic account, showing that in the earliest ages the significance of temperature was fully recognized. Little by little, however, the value of temperature seems to have become disregarded, and, although several attempts seem to have been made to revive it, it was not till 1740 that the first accurate observation on temperature in healthy men and animals was published. Then follow four hundred pages devoted to the consideration of temperature under varying conditions in the human body in a state of health, and likewise in nearly every important disease. The author of this work is a prominent member of the profession in the American metropolis, who has done more, perhaps, than any other man in that city to popularize, if we may in this connection use such a word, the use of the thermometer.

MEDICAL SOCIETY OF LONDON.

Mr. William Adams and Mr. Richard Davy, who were delegates from the London Medical Society to the International Medical Congress, at Philadelphia, arrived home in time for the annual meeting, which took place early in October. They made a special report concerning their visit, and spoke in the highest possible manner of the genius and ability of American surgeons, and of the very great success of the Congress. Both delegates appear to have been delighted with their American trip.

AMERICAN GYNÆCOLOGICAL SOCIETY.

The first annual meeting of this Society was held in New York, on the 14th, 15th and 16th of September, under the presidency of Dr. For-

dyce Barker. Dr. Barnes, of London, England, was present, and read a paper.

The Society embraces the representative men from all the great centres of activity. Admission is conditional on approved work. The choice of honorary members is also strict. At present four only have been elected, viz.:—Dr. Robert Barnes and Mr. Spencer Wells for England, Dr. McClintock for Ireland, and Mr. Thomas Keith for Scotland.

BRANT COUNTY MEDICAL ASSOCIATION.

The quarterly meeting of this Association, was held in the Kerby House, Brantford, on Tuesday, Sept. 5th. The following gentlemen were elected officers for the ensuing year: Dr. Digby, *President*; Dr. Philip, *Vice-President*; Dr. Harris, *Secretary and treasurer*.

LINDSAY AND BLAKISTON'S VISITING LIST.

Punctually, on time, we have received a copy of this most valuable pocket record, which is now issued for the twenty-seventh time. We consider it "*multum in parvo*," and can most conscientiously recommend it to our readers. We have used it for the past twelve years, and would not be without it for ten times its cost. We could not say more than this in its favor, were we to write a page.

NERVE STRETCHING IN TETANUS.

In a case of tetanus which occurred in the Montreal General Hospital, Dr. Drake cut down upon the sciatic nerve and stretched it. The patient was then put upon chloral hydrate and calabar bean. The operation seemed at first to afford considerable relief to the patient, but after a time the spasms returned and he ultimately died of lockjaw.

MISTAKEN CHARITY.

The British Medical Journal says: "It has for many years been the custom at University College Hospital for the honorary medical staff to resign the whole of the fees paid by the

students of clinical instruction to the Committee of Management, to enable them to defray the expenditure for general purposes. The sum so surrendered during the year 1875 was no less than *two thousand three hundred and forty-four pounds*, or something like one-third of the ordinary income, excluding extraordinary donations, legacies, and interest on investments

POISONING FROM CANNED BEEF.

A scientific commission has completed an investigation of the alleged poisoning of a family by canned corn beef, in New York, and it is gratifying to learn that these experts have decided unanimously that the poison was the result of exposure of the meat after it was uncanned, whereby it became putrid or tainted. They declare that there is nothing deleterious about the canning process, as is abundantly proved by the immense consumption of canned fruits and vegetables without notable cases of injury in any part of the country which cannot be accounted for by some imprudent acts of the consumers.

SINGULARLY SLOW PULSE.

The *Gazette des Hopitaux* states that at the Lariboisiere Hospital a patient, a *chiffonnier*, seventy-seven years of age, came in to be treated for hydrocele, in all other respects seeming well and jovial in his manner. It was almost by accident discovered that he had a pulse only of 21. It is regular, the two sounds of the heart and the short interval of silence that separates them occupying scarcely half a second. But the "grand silence" is extraordinarily prolonged, so as to continue nearly two seconds and a half. During this absolutely nothing is heard in the heart—not the slightest soufflé. But with the first sound a very distinct soufflé is heard, which, continuing during the "petit silence," terminates suddenly with the valvular clap which constitutes the second sound. The heart seems large, its apex beating more externally and lower down than in the normal state. There is some emphysema of the lungs. The pulse was counted carefully four days in succession, and the intervals were found to be perfectly equal, and the same on both sides.

MEDICAL STUDENTS, 1876.

The following is a list of the number of students of medicine registered at the Royal College of Surgeons of England this session from the metropolitan schools, distinguishing the new entries for the session. It will be seen that the number of new students is large, especially at the great city hospitals:

St. Bartholomew's.....	374, including	131 new entries.
Guy's	317	" 95 "
University College.....	279	" 79 "
St. Thomas's.....	177	" 43 "
St. George's.....	136	" 33 "
London.....	123	" 35 "
King's College.....	105	" 38 "
Middlesex.....	101	" 38 "
St. Mary's.....	82	" 26 "
Charing Cross.....	70	" 29 "
Westminster.....	28	" 9 "

The gross number registered amounts to 1,793, including 546 new entries.

AMERICAN PHARMACEUTICAL ASSOCIATION.

The Association held its twenty-fourth annual convention at Philadelphia, on the 24th of September. About one hundred and fifty members were in attendance, and the Association decided to accept an invitation extended to it by the Ontario College of Pharmacy, and meet in Toronto on the 4th of September, 1877.

MEDICAL ITEMS.

Dr. Pearce, of Mars Bluff, S. C., reports that a negro woman—multipara—gave birth on the 11th September to five children—four died after birth, one lived several hours.—Sir William Ferguson has returned to London, much improved in health. He is about to gradually resume his professional occupation.—Dr. Brown Sequard, has settled in London, after an absence of thirteen years. He intends resuming practice.—Mr. William Clarke, C.E., who carried out the drainage and water supply of Calcutta, which have had so beneficial effect on the health of the city, has been invited to Australia, to advise upon the drainage of Sydney, N. S. Wales. —Dr. McKendrick, late one of the lecturers in the extra-academical school in Edinburgh, has been appointed Professor of Physiology in the University of Glasgow.—

Dr. Grainger Stewart has been appointed Professor of the Practice of Medicine in Edinburgh University, in place of the late Dr. Laycock. —A lady in London, under date of September 20th, 1876, has executed a will, before a well known firm of solicitors, bequeathing her body to the Royal College of Surgeons, for the purpose of dissection.—The *Medical Times* prints the following as a copy of a label taken off a bottle of medicine supplied by a firm of druggists of Cork:—"Caution.—To all medicines for outward adplication this label is attached to the bottles, in order to distinguish it from others for internal use, but persons unable to read should not be allowed to administer medicines, and never give or take a dose without perusing the label.—Signed —." —Dr. W. T. Gairdner, Professor of Practice of Medicine in the University of Glasgow, has been appointed physician to the Queen in Scotland, in place of Dr. Laycock, deceased.

SCARLET FEVER PROPAGATED FROM MILK.

Dr. Buchanan, in his report on a recent outbreak of scarlet fever in South Kensington, says that the disease was apparently propagated through the agency of milk.—*Medical Record*.

MARRIED,

At Dundas, Ontario, on the 10th of October, Charles O'Reilly, M.D., son of the late Dr. O'Reilly, of Hamilton, to Sophia Elizabeth, eldest daughter of the late George Rolphe, of Dundas.

DEATHS.

At Montreal, on the 21st November, Clara Elizabeth Palmer, wife of Alexander H. Kollmyer, M.D., professor of Materia Medica, University of Bishop's College, aged 38 years.

At Mhow, Bombay Presidency, East India, on the 8th of October, Cornelia Nelson, aged 27 years, wife of Major H. W. Harris, 1st Bombay Lancers, and daughter of the late Horace Nelson, of Montreal, and sister of Dr. Wolfred Nelson, assistant Demonstrator of Anatomy, University of Bishop's College.

At Montreal, on the 18th November, inst., Ann Maria Mansfield Mullins, wife of Angus C. MacDonell, M.D.

At Ballarat, Australia, on the 28th July, 1876, Henry M. Mount, M.D., late of Montreal, aged 78 years.

At Montreal, on the 31st October, Julie Elizabeth Josephine Defoy, wife of Arthur Ricard, M.D., aged 36 years.

At Dundas, Ont., on the 11th October, Henry C. Rutherford, M.D., aged 68 years.