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USE OF ALCOHOL IN CERTAIN FORMS OF FEVER.

BY PAUL H. KRETZSCHMAR, M. D., OF BROOKLYN, N. Y.

Read before the Medical Society of New York, at Albany, *February*, 1888.

Within the wide range of the entire Materia Medica there is not another remedy the use of which has so many opponents, and at the same time there is none which, in the hands of the careful physician is so powerful an agent for doing good as alcohol and its numerous preparations. The healthy human body does not require alcohol; its moderate use in health has no detrimental influence upon the general system: its habitual abuse is certain to be followed by serious structural changes in many important parts of the organism, and dangerous functional derangement of the entire nervous system. In certain forms of disease it is a remedy, if properly administered, which is not only instrumental in prolonging life, but frequently it is the most important factor in preserving it.

The teachings of prohibition are disseminated all over the land, and without entering into any discussion of its merits or demerits, the question of administering alcoholic stimulants in disease is one which should be positively settled by a representative medical body as this is. Who has not had the experience of patients refusing to take the prescribed amount of whiskey, brandy or wine on account of conscientious scruples? There are members of this learned and supposed liberal profession who permit their adherence to prohibition principle and doctrines to blind their otherwise good judgment. Those who have done so heretofore should remember that the healing art, while it pays due consideration to the moral questions, should not allow them to stand in the way of performing the cardinal duty of the true physician, to relieve sufferings, cure disease, and prolong life. No intelligent physician would allow the fact that human life is thereby destroyed to interfere with his performing craniotomy if the mother's life is in actual *peril and can be saved in that manner.* Would anybody hesitate to induce an abortion if circumstances indicate the strong advisability as a therapeutic measure for doing so? No doubt some prescribe stimulants too freely, and sometimes when they are not indicated; in fact, circumstances may arise when it is not an easy matter to decide whether or not to resort to the use of alcohol. It is the object of this paper to state what febrile conditions make the administration of alcohol a necessity, and to lay down some positive rules regarding its administration.

In papers touching upon this subject it will be generally found that alcohol is classified as standing midway between food and medicine, and I think a great wrong is thereby done to this valuable and powerful remedy. Standing midway between food and medicine, alcohol would *be neither, or a little of each, while in* reality it possesses the qualifications of either in a marked degree. Considering the therapeutical value of alcohol, its influence upon the circulatory system is preeminently important; it increases the power of the heart's action, it diminishes the frequency of its beat, and augments the force of its contractions. The question of the value of alcohol as a food has been investigated by many careful observers, and, while their opinions differ widely, especially as to its mode of action, it seems that Prof. Austin Flint, in his excellent paper on "Fever," read before the Ninth International Medical Congress, Sept. 6th, 1887, expresses the views held by the majority of philologists. He says: "Inanition is also a constant element in a fever long continued. In health, the formation of water in considerable quantity,

in the production of heat, occurs in the first part of a period of deprivation of food, and this saves, to a certain extent, destruction of the solid tissues. One of the most marked and constant condition in fever is a disturbance of the heat-producing process, in which the solid tissues are consumed and the production of water is greatly diminished. It is a rational object of treatment to endeavor to restore the normal equilibrium between the consumption of the so-called solids and the formation of water as factors in the production of heat. If it were possible to introduce farinaceous and fatty articles of food in sufficient quantity in fever, it might not be necessary to use alcohol; but the condition of the digestive organs is such that these articles are slowly and imperfectly prepared for absorption. Alcohol, however, requires no preparation by digestion. It is promptly taken up by the blood and is oxidized even more readily in fever, than in health." At another place the same author states: "Alcohol judiciously administered, so that all that is introduced is promptly and completely oxidized, as it contributes material for consumption in the production of excessive heat, exactly in that degree does it retard destruction and degeneration of tissue; and it should be employed to supplement the use of matters that are regarded as nutritive.

If the medical, stimulating effect of alcohol is desired, we may safely say that, just in proportion as the heart muscle fails to perform its duty properly, alcohol is useful. To state that any certain quantity of alcohol be an appropriate dose, as can be done in the large majority of drugs, would be a fallacy, just as is the case with opium. Habit, age, sex, have a certain influence in determining the amount of either alcohol or opium to be given as a dose; but we should rather endeavor to obtain a certain effect without regard to amount used than adhere to rules laid down in the text-books. In one case the amount of pain to be relieved should be our guidance, and, in the other, the heart's action or its indicator—the radial pulse—should be the criterion for the amount to be given. It should be remembered that the effects of alcohol pass off quickly, and after the heart has once responded to the influence of the stimulant *it should not be allowed to relapse* to its previous condition. Alcohol should under such circumstances be administered rather frequently and always at regular intervals, even during night-time. No one would ever think of telling his patients to take belladonna, strychnia, digitalis, or any other powerful remedy in doses to suit themselves or in "liberal quantities," and neither should alcohol or its preparations be prescribed in a loose or careless manner; *neither the amount to be given* nor the time of its administration should be left to the judgment of the patient or his friends. Peremptory orders and directions are as necessary to obtain good results from the drug under consideration as is the case with the others mentioned above. The fact that many practitioners neglect to regard alcohol as a powerful drug is responsible in a high degree for the harm done sometimes by cultivating a *taste for alcoholic stimulants.*

The dietetic virtue of alcohol is well proven in cases of wasting febrile disease of either acute or chronic nature, and is best illustrated by typhoid fever in one and by pulmonary phthisis in the other case.

The form in which alcohol is to be given deserves consideration. The one rule which must always be followed is to administer it *well diluted.* A difficulty *arises when we come to decide which* preparation of alcohol to use; pure absolute alcohol, rectified spirits of wine, brandy, whiskey, rum, arrac, gin, different kinds of white or red wine, champagnes, beer, cider, cordials of various names, and last though not least, kumiss, all contain alcohol in larger or smaller proportions, and it is of importance to select in each case the most suitable one of these preparations. In deciding in favor of one or *another of these articles, we must be* guided by the desire to obtain such as contains alcohol in its purity; but we must not overlook the fact that they contain other constituents which must by no means be regarded as playing an unimportant part, and which might retard or even interfere with the good effect of alcohol. Rectified spirits diluted with water, fla-

vored and sweetened to suit the patient's taste, answers the demand for a pure article best, and yet it is very little employed. Brandy seems to be the favorite with the profession as well as with the laity, but it seems to be doubtful whether that should be so. The best sort of brandy—generally a very expensive article—is probably as good as any alcohol preparation, but it is with difficulty that we obtain it; most is of a poor quality and contains more or less fusil oil, and it is for that reason that it should be condemned. Nothing will interfere more certain with the beneficial effects of alcohol on the heart than fusil oil. Of the stronger preparations of alcohol, including all those known as strong liquors, whiskey is probably best adapted for medical use in this country, because it is made here, and a pure article can be obtained without paying a very high price for it. Rum and arrac are not much used. If for any special reason the diuretic effect of an alcoholic preparation is desirable, gin might be selected. Most of the European practitioners prefer the use of wines to that of stronger liquors, and they base their choice upon the fact that alcohol is contained there in a diluted form naturally and that the taste is more agreeable to the patient. Sparkling wines—champagnes—act much quicker than still wines, on account of the presence of carbonic acid, and should be selected in all cases where it is desirable to obtain the stimulating effect of alcohol as quick as possible. Cider contains such a small percentage of alcohol that it has little value as a medical preparation. Beer and kumiss are also poor in alcohol, but they are valuable as nutritive agents on account of the other constituents—albuminoids, etc., —they contain.

The diseases in which alcohol should always be given, though not at every stage, are *diphtheria, pulmonary phthisis, typhoid fever*, and the *asthenic form of pneumonic fever*. All these diseases depend upon the presence of a certain microorganism within the human body; and as bedside experience teaches us the great value of alcohol in these cases, we might, remembering the power of alcohol as a germicide without the human body, ask the question, if aside from the therapeutical effect mentioned above, alcohol has not also direct *germicidal* properties. Dr. E. N. Chapman, of Brooklyn, N. Y., claims that alcohol is a direct antidote to the *diphtheritic poison*. He says: "Alcohol is as antagonistic to diphtheria as belladonna to opium or quinia to malaria;" and he continues, "I have thought it opportune to submit to the medical profession certain empirical facts that have been accumulating during the past seventeen years. These show beyond cavil that alcohol has in my hands proved itself, when most physicians have been losing every third or fourth case, not only a valuable medicine, but a trustworthy antidote—one capable of saving ninety-five per cent. in severe epidemics. With me this scourge, thus robbed of its terror, causes no more anxiety than many common ailments." The doctor states that, during a period of four years, he treated one hundred and twenty-five cases with but one death, a result so astounding as almost to stagger belief. The *Journal of Dietetics* of October, 1887, contains the following: "Alcohol, we make bold to say, is the prince of antiseptics and the most perfect and valuable medicine of which we have any knowledge in diphtheria. Diluted with equal parts of water, and given in small and repeated doses, the malignant symptoms of this most fatal malady disappear and convalescence becomes assured. It is interesting to note with what facility the alcohol dissolves the diphtheritic exudation in the throat, lowers the temperature, and calms the pulse, showing its destructive work upon the germs of the disease. This remedy has been used by us in the treatment of diphtheria since 1873, during which time no case of the disease has slipped through our hands, except in one solitary instance, and that case was in articulo mortis before the remedy was given. The remedy is also prophylactic to the disease, as we have found in many instances."

These statements speak for themselves; and, although the writer has not been as fortunate in results, considerable experience has taught him to rely upon alcohol as a most valuable adjunct in the treatment of diphtheria. If alcohol is not given in

a case of diphtheria, the attending physician omits to do all he can for the welfare of his patient. *In pulmonary phthisis*, especially if there is any elevation of temperature, alcohol is one of the most valuable remedies at our command, notwithstanding the fact that phthisis is especially prevalent among those who live an intemperate life. Dr. H. Brehmer, who has probably a larger experience in treating pulmonary phthisis than any other man, over 13,500 patients having visited his institution for the cure of consumption at Goebersdorf, in Germany, during the last thirty-three years, says: "I first introduced alcohol as a remedy for pulmonary consumption because it strengthens the heart's action, elevates the blood pressure, and improves the feeble and weak pulse; but as long ago as 1864 and 1865, I found that it also possesses great value in aborting or shortening the chills and reducing the temperature, and that it should be classified as a powerful drug for relieving the fever." He also states: "Brandy and milk properly administered is a sovereign remedy for night sweats."

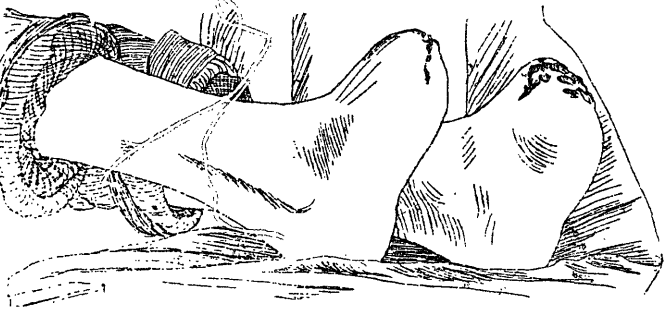
Dr. P. Dettweiler, of Falkenstein, another phthiso-therapeutist of excellent reputation, says: "After many trials and experiments with a large variety of drugs, I have arrived at the conclusion that alcohol is the most potent factor for the relief of the fever of consumptives, and that, if I had to choose, I would rather dispense with the use of salycil, quinine, and antipyrin than with that of good wine and pure cognac." One of the best of our own clinical teachers, Prof. Austin Flint, Sen., says: "Basing my opinion on clinical experience, I do not hesitate to express the belief that in a certain proportion of cases alcohol exerts *curative* influence." All these writers agree that they do not know of any cases where intemperate habits were developed by the proper use of alcoholic stimulants during the treatment of the disease. It seems almost superfluous to add anything to the testimony of these trustworthy and careful observers. The writer has always employed alcohol—generally in the form of strong Hungarian wine, taken principally with meals—in treating pulmonary phthisis, and his experience fully coincides with the statements made above.

The value of alcohol in pulmonary phthisis is depending not only on its therapeutic effects but also on its dietetic qualities, and, as in the case of diphtheria, it would be bad practice not to give our consumptive patients the benefit of this valuable remedy.

In *typhoid fever*, as well as in *pneumonia of the asthenic type*, the good effect of alcohol is more readily observed than in most other diseases, and the most gratifying results are recorded frequently as a direct sequence to the liberal use of alcoholic stimulants. After typhoid fever has run along for some weeks, and great depression of the vital powers, as shown by indistinctness of the first sound of the heart, a feeble pulse, jacitation, is a prominent symptom, alcohol is the remedy above all to be relied upon. If it would not extend this paper beyond the space allowed, a number of very interesting cases could be quoted which tend to convince every intelligent physician of the great benefit derived from the judicious but liberal use of alcohol in treating typhoid fever or conditions resembling it. Only one case, instructive also in regard to the effect of a small dose of antipyrin, shall be mentioned:—

L. P., a young lady of 17, was taken with typhoid early in October last. The writer saw her in consultation first, November 28th; at that time the symptoms attracting attention were occasional vomiting, low delirium, temperature 102⅗°, subsultus, pulse 120 and weak, some tympanitis. Ordered one-half ounce of best brandy in water or milk every hour, two pints of champagne during twenty-four hours, and Rudisch sarco-peptones. The general symptoms remained about the same; vomiting ceased, but the temperature—taken every two hours—showed a higher range during the next few days. December 2nd, temperature 104½°, breathing 34 per minute with increased adynamic condition. At 6 p. m. ordered 15 grains antipyrin every four hours if temperature above 102°. Brandy increased to one ounce every hour, otherwise no change. At 9:30 p. m. called in haste; temperature 97½°, pulse 140 and feeble, respira-

tion 42, first heart sound very indistinct, cold perspiration over forehead, fine moist rales over both lungs. Ordered one and one-half ounces of brandy every hour, champagne a glass every half hour for two hours—and no more antipyrin. Patient took thirty-six ounces of brandy within twenty-four hours for two days, decreasing the amount then to twenty-four ounces and soon to twelve ounces daily. The patient made a good recovery, thanks to the liberal use of alcohol. The writer does not urge the administration of stimulants at the beginning of either typhoid or pneumonic fever, but we should not employ it only as a "*dernier ressort.*" As soon as symptoms indicating heart-failure becomes apparent, alcohol should be employed and in sufficiently large doses to produce the desired effect. It is very probable that little difference of opinion exists in the medical profession about the value of alcohol in typhoid conditions of the system, the evidence of its usefulness being overwhelming. Any physician who would allow a patient to die from heart-failure in typhoid or pneumonic fever without giving alcohol a fair trial, should be condemned without hesitation—*Brooklyn Medical Journal.*



CONSERVATIVE SURGERY.

The above cut represents the present appearance of a patient under the care of Dr. R. B. Fergusson, with the following history:—

The case is that of a young man aged 22 who was caught in the blizzard of last January, and for three days was wandering about within two miles of his house, resulting in both of his feet being badly frozen, also portions of his face. The patient came to the General Hospital in Winnipeg, and amputation of both feet above the ankles was determined on, and the man was actually on the table for this purpose when, by the desire of his relatives, he was placed under Dr. R. B. Fergusson's care, who decided not to operate and, with the exception of removing the dead tissues, carefully avoiding all sound substance, left nature to work her own cure. Anti-septic poultices with a subsequent dressing of sublimated jute was the only local treatment employed. Several abscesses formed around the ankle joint, which were freely laid open and healed kindly. The patient has got over his trouble with the loss of the phalanges only, as depicted in the cut, and with mechanical appliances will have fairly useful feet. The rationale of Dr. Ferguson's treatment of severe cases of frost bite is the removal of all dead substances, taking care not to wound any live tissue. He objects to amputation as likely to be followed by septicæmia, and contends that nature if not unduly interfered with, will get rid of all useless matter with minimum loss. This is the true principle of conservative surgery and calls to mind the teaching of that brilliant and well known professor of our art, the late Sir William Fergusson, of London, who, in his second lecture as Professor of Human Anatomy and Surgery at the Royal College of Surgeons of

England, says :—To save life and limb is a grand feat; it may be said to be the highest reach of surgery. Amputation should be avoided by every reasonable means, the opinion that when bone is bare or a joint grates amputation is the proper course is a great error. Bare bone is covered again and a joint may still be so far restored that there may be a certain amount of motion in it, or if not there may still be a cessation of disease with a useful member. Amputation in many cases is not required, and it is a deplorable example of meddlesome surgery. Opinions may differ, but for my own part I deem it a grand thing when by prescience even the tip of a thumb can be saved. With a conviction founded on practical experience that many limbs and members have been sacrificed by amputation which might have been saved; that deeds have been done which, on a superficial glance, were deemed as high artin our profession when in reality they were indications of weakness, being the very approbria of our calling. Surgery is emphatically preservative or conservative, but the phrase was coined and used as applicable to a line of practice whereby the loss of a limb might be averted, and the meanest act of surgery, namely, amputating for seemingly incurable local disease, might be superseded There is a poetic fallacy regarding the skillful surgeon who boldly cuts beyond the seat of disease by way of making sure of its eradication, which should have no consideration with the good pathologist. While doubtless, this maxim is safe in cancers, I believe it to be fraught with great mischief in most other cases, and some of the finest things in modern surgery are done seemingly in the midst of disease. = These are a few remarks of one who, in his day, up to a very recent date, did more for the advancement of conservative surgery than any of his predecessors All honor to this great and good surgeon whose name will ever be associated with the highest attainment of our art, "Conservative Surgery." We hear of and not unfrequently see mutilated fellow creatures, living monuments of operative brilliancy, the melancholy victims of a sharp knife and an ambitious operator, The conservative surgeon may with pride and pleasure draw attention to the slight mutilation after formidable disease or injury which, with skillful assistance to nature, he was able to arrive at, whilst the amputating surgeon who comes across his dismembered patients can oftentimes only regard with chagrin the results of his skill. Amputation well beyond the seat of injury has been the rule followed in this province, and asasequence those gentlemen who have acquired their surgical education here naturally adopt this procedure. This case of Dr. Fergusson's, with others which we hope to place before our readers, will show that the teaching is unsound, the practice deplorable and wrong. The shock to the system and the condition of exhaustion certain to result from prolonged exposure to a very low temperature should warn the surgeon that nature would probably bear no more, and while attending locally to the frozen parts, building up the vital powers should be the chief aim. Dr. Fergusson has had considerable experience in these cases, and his treatment has been eminently satisfactory in results. It is to be earnestly desired that he will have many followers.

NOTES ON TWO CASES OF LAPAROTOMY FOR PENETRATING GUNSHOT WOUND OF THE ABDOMEN; RECOVERY IN ONE.

BY ARTHUR E. J. BARKER, F. R. C. S.

Surgeon to University College Hospital; Teacher of Practical Surgery at University College.

The following cases are a contribution to the study of a class of injuries which, though they have received far greater attention abroad, and especially in America, than in this country, must doubtless have a keen interest for all surgeons.

CASE I.—A. T., aged 23, a French jeweller, was admitted into University College Hospital under my care on Nov. 20th, 1887, at 3.20 a.m., having shot himself in the abdomen half an hour previously. He was suffering from moderate shock, and though quite conscious when spoken to, seemed dazed and frequently groaned. His pulse was 56, and markedly

dicrotous (from subsequent observation this was probably its normal condition); it was of good volume. The skin was normal, and the temperature in the rectum 98.2° F. He had not vomited. He lay on his right side, with his knees drawn up; his breathing was slow and shallow, with an occasional catch. There was a small bullet wound, with blackened edges, over the border of the costal cartilages on the right side, one inch from the middle line, at the level of the tip of the ensiform cartilage. The pistol was a small "pin-fire" weapon carrying a conical ball 11 millimetres long, 7 millimetres in diameter, and weighing 60 grains. There was little or no external bleeding from the wound, and no evidence of fluid in the abdomen except a suspicion of dulness in the right flank, but there was much tenderness on pressure over the abdomen.

I first saw the patient at about 5 a. m., two hours or so after the injury, when he was beginning to recover from shock. Feeling confident from the situation of the bullet wound that the ball must have entered the abdomen and have struck the liver, and fearing that the slight dulness in the right flank was commencing effusion of blood, I had little hesitation in deciding on laparotomy in order to check hæmorrhage, suture any lesions if present, and cleanse the abdominal cavity. Having, therefore, made every arrangement for complete antisepsis, the operation was done at about 6.30 a.m.

I first made an incision about two inches and a half long over the tip of the ensiform cartilage, and on drawing its edges apart could see the opening in the peritoneum through which the ball had entered the cavity. Nearly under this, and at the attachment of the falciform ligament to the liver, was a patch of ecchymosis under the serous covering of the organ, which suggested the point at which the latter had been struck by the bullet. There was no corresponding breach of surface of the liver, either here or elsewhere, though I carefully examined most of the anterior surfaces of the left lobe by pressing it down and throwing the light well between it and the ribs, and also by passing my hand over it. The surface of the organ was, however, stained with blood, and a dark clot was seen extending directly downwards in the middle line. This was about the size of the little finger when drawn out, and led me to think that it came from the track the ball had taken. I therefore prolonged the incision to the umbilicus, and found some more and larger *solid clots lying underneath the abdominal* walls and upon the colon and omentum.

The first point was now to see that the stomach was not injured, and a careful examination of its surfaces as it bulged up into the wound, as well as the fact that it was tense with gas, clearly indicated that it was not perforated. It was therefore pressed back into the abdomen, and the transverse colon lying just below it was hooked up and drawn out of the wound to the extent of about eighteen inches for careful inspection. This also was found intact, but the omentum along its lower border was noticed to be much blood-stained and covered with clots ranging from one the size of my thumb downwards, apparently derived from lesions of some of its own vessels. These clots were therefore carefully disentangled from the omentum, and the latter was wiped clean, and while this was being done the bullet was found in its folds, and a moment later a small round wad. From the position of the bullet it appeared quite clear that it had struck the liver at the insertion of the falciform ligament, and had glanced off it and passed between the abdominal wall and the stomach and transverse colon as nearly as possible in the middle line, to become entangled in the folds of the omentum, some of whose vessels were torn. It seemed highly improbable, therefore, that any other viscera were injured. Nevertheless, all the coils of small intestine exposed by the incision were carefully examined; then sponges wrung out of sublimate solution were thrust into both flanks and the recto vesical pouch, but came out unstained. The viscera exposed were then thoroughly cleansed by sponging, and were adjusted with the omentum over them, after which the abdominal wound was closed in the usual manner. The bullet track in the

abdominal wall was also scoured well, rubbed with iodoform, and a very fine short-drainage tube was passed into it as far as the peritoneum, but not through the latter. Firm bandaging over a salicylic wool dressing completed the operation. The latter was well borne, and when the anæsthetic was recovered from there was no vomiting and only moderate pain, easily relieved by a little morphine. The patient was fed for some days with nutrient suppositories. The temperature rose the same night to 103.6°, the pulse to 100, and the patient became rather restless, but twenty-four hours after operation both were normal, and remained so practically to the end of the case. The dressings were changed on the sixth, tenth and sixteenth days, union having taken place by first intention, except in the bullet track, which, however, closed rapidly, the patient leaving hospital on the twenty-first day quite well. The bowels had acted normally several times.

CASE II.—M. F. G., aged 37, an American, was admitted on the following night, Nov. 21st at 8:30 p.m., having been shot in the abdomen about half an hour previously with a Colt's revolver carrying a conical bullet 15 millimetres long, 9 millimetres in diameter, and weighing 143 grains. I saw him a few minutes after 9 o'clock, and found him quite comfortable, with no trace of shock and not suffering in any way. The shot had been fired at close quarters, and the ball had struck the abdominal wall 3¼ inches to the right anterior superior iliac spine and half an inch below it, and had emerged 3 inches behind the same iliac spine and also half an inch below it. From neither opening was there any bleeding at this time, but the clothes were considerably stained with blood. From the position of the wounds it appeared probable that the ball had passed through the soft parts external to the peritoneum and without entering the abdomen. This was explained to the patient, and also the necessity of giving an anæsthetic so as to make a thorough exploration. His assent was at once obtained, on the understanding that he was to be allowed to come to as quickly as possible in order to see his friends, who had been sent for. On enlarging the anterior wound a slit was seen in the tendon of the external oblique muscle, and through this a probe slipped into the abdominal cavity, while a considerable quantity of blood welled up from the latter.

It was plain then that a full exploration of the abdomen should be made, but it was necessary to let the patient know his condition and see his friends before going further. He was therefore allowed to recover from the anæsthetic, when he at once gave his consent to any operative treatment which might be necessary, his friends too acquiescing readily. It was not, however, until 1.5 a. m. that the operation was begun, owing to some delay on the part of the police authorities in taking the patient's depositions. All arrangements for complete antisepsis having in the meantime been made, I commenced the exploration at that hour by a four-inch incision in the direction of the fibres of the external oblique, and having the bullet wound in its centre. When the abdomen was thus opened blood mixed with clots, but without a trace of fæces or odor, escaped to the extent of three or four ounces. Knowing from a rather large experience of gunshot wounds the extraordinarily erratic course of conical bullets in some cases, my first care was to make out the track of the ball in this instance. The incision having passed through the aperture of entrance in the peritoneum, the aperture of exit had to be found if possible, and on sponging out the blood it was seen not more than half an inch from the first, and just below the cæcum. At first it was thought that the latter viscus had been wounded, but this was not so. The bullet then had only just entered and left the abdominal cavity in the fold between the anterior wall and iliac fossa, a strip of peritoneum only half an inch broad separating the two wounds. It was a question then whether the intestine was wounded, but this was soon set at rest when the adjacent coils were drawn out, two wounds being found in one coil which exactly corresponded to those in the peritoneum, against which it had rested when the bullet was fired. These wounds were round, with slightly

bruised edges, from which the mucous membrane did not protrude. They bled freely, but no faces escaped from them, the bowel appearing to be quite collapsed on either side. Fearing that to simply suture these two wounds would seriously narrow the lumen of the bowel, I at once excised a wedge-shaped portion of the gut, including the injured part. The bowel was first thoroughly emptied by pressure, seized on either side in the fingers of an assistant, and two cuts were made with a scissors, reaching to the mesenteric attachment of the intestine. In this way a complete ring of the latter, about half an inch broad at the injured aspect, was removed, the mesentery being only slightly notched. The parts having been now thoroughly cleansed, the serous surfaces of the mesenteric notch were brought together by a continuous suture on both sides, and the cut edges of the bowel having by this means been apposed on their proximate aspect, they were united by a continuous suture of fine silk, taking up only the serous and muscular coats just at the edge, the needle coming out on the cut margin at each stitch. This suture was begun at the mesenteric aspect of the bowel, and went completely round the latter, care being taken that while it brought the edges into contact, it should not narrow the lumen of the bowel.

A second row of interrupted silk sutures was now introduced to reinforce the first. These took up the serous and muscular coats just beyond the first row, and, when secured, the latter was completely hidden. There was no difficulty in controlling the contents of the bowel with the fingers, or in suturing the bowel without contamination of the stitches. All the coils of small intestine within reach were now drawn out of the abdominal wound, and were searched for further injury with a negative result. They were then washed with sublimate solution, 1 to 1,000, and before they were returned the abdominal cavity was thoroughly sponged out, special attention being given to the flanks and the recto-vesical pouch. When everything appeared quite clean, the intestines were returned, and the wound was closed in the usual way with silk, a drainage-tube being left in the track of the ball, and reaching well into the abdomen. A salicylic wool dressing completed the operation, which had lasted one hour twenty-nine minutes. The patient bore it very well, and did not suffer from shock. The next day he was fairly comfortable, only complaining of pain in the wound; but he was very thirsty, and ate a great deal of ice. Pulse 115, temperature 99° to 101°. He vomited occasionally, but only a little odorless, white fluid. He was kept well under the influence of morphine. There was no distension of the abdomen. His urine required to be drawn off every six hours; it was high colored, and very acid. On the second day after operation he seemed very well, but could not retain anything taken by the mouth; he had been having peptonised suppositories every six hours, Pulse 120, temperature 101° to 102°. On the third day he seemed much better, but still vomited occasionally, though only the ice water and a little mucus. Pulse 120, temperature 101.1° to 101.8°. He was able to pass water himself, and also passed flatus. The wound was dressed for the first time under the spray, and the drainage-tube was shortened. On the fourth day he was still better, though the pulse remained at 120, and the temperature varied from 101.8° to 101°. But towards evening the fluid, which he still occasionally brought up in small quantity, began to have a faculent odor and to become yellow. The abdomen, too, was more tense than before, and the patient did not look so well. I therefore began to fear that there might be some obstruction of the bowel near the seat of operation, or possibly some collection of matter, though there was no dulness of the abdomen anywhere. In consultation with my colleagues it was determined to release the stitches in the wound, and explore it with the finger. This was done at midnight, but no collection was found, and the sutured part of the bowel was felt to be in a satisfactory condition. The next morning (fifth day) he seemed weaker, though not so sick; but his strength was improved by injection of stimulants in the afternoon. His temperature had risen somewhat to 101.6° to 102.6°, and the pulse was 130. Dur-

ing the night he became weaker, though less sick, and at 4.45 he died quietly (sixth day.)

The *post-mortem* examination was made by Mr. Bilton Pollard, whose notes contain the following facts: The small intestines were very much distended, especially in the umbilical region; there was no gas, lymph, or pus anywhere in the abdominal cavity, but the coils of the bowel in the distended area were slightly greasy. The large intestine was not at all distended, and seemed out of the area of inflammation, which had affected the small intestine solely. The latter in the neighborhood of the wound was more adherent than elsewhere. The portion of bowel sutured, which was in the ileum about three feet from the cæcum, was in a perfectly satisfactory condition. Union had taken place thoroughly between the cut ends, and the bowel was not obstructed in any way. Tested with considerable pressure it was perfectly air and water tight. There were about two drachms of blood-stained fluid in the recto-vesical pouch, about half a drachm in the right flank, and three drachms in the left. There were a few spots of extravasated blood in the omentum, which occupied its normal position, but was adherent to the edge of the wound by recent lymph. There was much hypostatic pneumonia in both lungs, especially on the right side; the other organs were healthy.

It will be seen from these notes that the cause of death was a very moderate amount of peritonitis limited to the small intestine, and in addition no doubt the hypostatic pneumonia told unfavorably. Indeed, there was so little to be found in the abdomen indicating peritonitis, except the distended coils of bowel, that there was some hesitation in accepting this as the cause of death. But the absence of any other lesion except the pneumonia, left no alternative. A septic condition, in the ordinary use of the term, did not exist; the spleen was quite normal and other evidences also failed, in short, one turned away from this necropsy with an intensified feeling of disappointment, because the patient had so very nearly recovered.

These two cases appear to me to possess each its own special interest. In the first there can be but little doubt that a fatal peritonitis would have occurred had not the bullet, its wad and the clots which surrounded it, been removed from the folds of the omentum by abdominal section. Again, laparotomy enabled us to exclude from consideration all other injuries of viscera, without subjecting the patient to any special risk in exploration. The case is also of of interest in being the first successful laparotomy for gun-shot wound of the abdomen recorded in this country. I trust it may encourage other surgeons to very prompt action in similar cases, so that the conclusions arrived at in America as to the propriety of immediate laparotomy in all cases where penetration of the abdomen is proved, may be justified by our experience too.

The second case, although a source of the keenest disappointment to me, has in no wise shaken my belief in the rule that every case of the kind should be treated immediately by abdominal section; indeed, it strengthens that belief in every way. What little peritonitis there was no doubt started from some spot in the peritoneum not thoroughly cleansed from matters escaped from the wounded bowel. Whether a more perfect antisepsis could have been carried out by a medium incision and irrigation may be a question of opinion, but I am strongly inclined to think that it could, though at the time I decided that the extra time and strain upon the patient's powers involved a double incision and its concomitants would be too dear a price to pay. That the median incision should be the rule in the vast majority of such wounds of the abdomen I am convinced, and this view will be shared by every one who carefully studies the literature of the subject. This literature is now becoming a large one. Sir William MacCormac's classical monograph sufficiently attest this by the numerous cases there quoted. But even in the short interval of only a few months which has elapsed since he published his collection of thirty-two operations for gunshot wound of the abdomen, almost an equal number of cases have been put on record, chiefly in America, and

numerous discussions have taken place on this subject. These cases I have been at the pains to collect and tabulate. A study of the results of these operations is most encouraging. They show a greatly lessened mortality, year by year, and also that much more desperate cases may be saved by surgical interference than has hitherto been supposed.—*British Medical Journal.*

CLINICAL MEMORANDA.

OPHTHALMOPLEGIA EXTERNA DUE TO ALCOHOL.

The common causes of ophthalmoplegia externa are locomotor ataxy, syphilis, diphtheria, and exposure to cold. Though paralysis of the ocular muscles has been observed in chronic alcoholism, I am not aware that the condition to which the term ophthalmoplegia externa is applied has been met with, and its occurrence would seem to show that it may be produced by lesion of the nerves as well as by lesion of the nerve nuclei, alcoholic paralysis having been proved to depend upon peripheral neuritis.

The following cases of chronic alcoholism, with ophthalmoplegia externa, is at present under my care.

J. B., a man, aged 50, was admitted into the workhouse infirmary on January 25th. His relatives stated he had been drinking heavily for some years; and my friend, Mr. Newton, who attended him before his admission into the workhouse, tells me that he has been drinking for years, and that the dropping of the eyelids came on about a month ago, the patient having complained for some weeks previously of pains and cramps in his legs. The patient, on admission, was incoherent, constantly asking for drink, and unable to tell where he was or to give any account of himself. He was unable to raise his eyelids, there being dropping of both eyelids, the left being less affected than the right. There was slight external strabismus of the right eye. He was unable to rotate his eyeballs either upwards or downwards, but could move them readily from side to side. The pupils responded to light and accommodation, but sluggishly, and were small. The knee-jerk was lost on both sides, the plantar reflex increased. There was no paralysis of the legs or arms, but the calf muscles were exquisitely tender on being grasped, and pressure along the course of the posterior tibial nerves elicited great pain. He could point his toes, and there was no marked weakness of the extensors of the wrist or leg. The first metatarsal bone was fractured, and he said this was due to a chair falling on his foot. The muscles of the legs reponded normally to farardism and galvanism. His memory was much affected, and he did not know where he was; he had no knowledge of time or place. When asked if he had been out he always responded in the affirmative, declaring that he had been several miles, and that he had had several glasses of whiskey; in fact, he talked of nothing but drink. He took his medicine readily on being told it was whiskey, though he thought the taste of it was very peculiar; in fact, he thoroughly illustrated the truth of the proverb, "In vino veritas," his speech betraying his previous habits.

Since his admission the patient has much improved, being now able to open his eyes, and the lids only drooping slightly. There is still considerable restriction of the movements of the eyeballs, but this is daily diminishing. The patient has had no alcohol since admission.

C. W. Suckling, M. D., M. R. C. P.

FEVER OF GROWING CHILDREN.

At the Hotel Dieu M. Reclus recently gave a lecture on the fever of growing children. He described the case of a young girl aged 19, who, while suffering from febrile symptoms, was suddenly seized with severe pain, especially referred to the left hip. She had been growing rapidly. M. Bouilly was the first to call attention to the subject in a little work published in 1879. In it he described the three important characteristics of this fever, which is rarely met with in infancy, although a case is recorded in which an infant aged 25 months grew 8 centimetres in six weeks. M. Reclus cited two cases of this fever observed in patients aged 2 and 21. The affection usually occurs b

tween the ages of 7 and 13 or 15. It is frequently manifested after extended movements and after great fatigue following violent exercise (gymnastics, swimming, etc.). It sometimes appears after pyrexia (eruptive and typhoid fevers). The anatomical lesions observed are due to disturbance in the function of nutrition in the region of the connecting cartilages, more particularly in those fibro-cartilages which furnish most bone, such as the cartilage of the upper extremity of the humerus, the cartilage of the lower extremity of the radius and ulna, the cartilage of the lower extremity of the femur, and those of the upper extremity of the tibia and fibula. Faulty nutrition is observed in the epiphyses which furnish most bone, especially in the interior of the lower extremity of the femur. "Growing fever" is never fatal, so there is no opportunity for necroscopic examination. The bone alterations which characterise this affection cannot therefore be thoroughly known. It is certain, however, that it presents a series of osseous lesions closely allied to each other proceeding from simple inflammation to osteo-myelitis. In some cases "growing fever" causes the formation of exostoses on one or more epiphyses. In other cases it results in inflammation, which engenders staphylococci aurei or infectious osteo-myelitis. M. Bouilly has described the three principal clinical symptoms of "growing fever" as follows: the first of these is pain of a particular kind; this may be spontaneous and generalized, in which case it is not a pathognomonic symptom; or it may be confined to the epiphyses, when it may be regarded as a characteristic phenomenon. The second symptom is the rapid growth of the patient; a case is recorded of a child of 15 who grew 14 centimetres in six months, and of one of the same age who grew 14 centimetres in two months. The third symptom is fever of a particular kind, which may present three distinct forms: 1, acute and transitory; 2, acute and prolonged; 3, chronic and prolonged. The first form is similar to the fever met with at the beginning of pneumonia. It reappears at night with sudden intensity, being preceded by shivering fits. The temperature reaches 40° and 41° C. (104° and 105.8° F.). There is severe pains in the limbs. This fever lasts one or two days. The patient grows from 1 to 3 centimetres in seven or eight days. The acute and prolonged form is frequently preceded by headache, general pain, epistaxis, singing in the ears; these symptoms are followed by shivering, fever, nausea, vomiting, disturbance in the respiratory function; the spleen is hypertrophied, spots are observed on the body; the tongue is foul; there is diarrhœa, with gurgling in the iliac fossa. These phenomena disappear in five or seven days; the patient recovers, but remains thin for a certain time. In order to ascertain whether these symptoms are the result of "growing fever" the epiphyses should be carefully examined. In the third form the fever is slight; the temperature never exceeds 39° C. (102.-2° F.). The fever only lasts a few hours at a time; it reappears from time to time during several months. The epiphyses are painful when pressed; the patient increases in height. M. Reclus cited cases in which the symptoms of "growing fever" were attributed to coxalgia; similar errors are often made. M. Brissaud lately met with a case of this affection in which the patient, a girl aged 16, grew 8 centimetres in two months. The diagnosis of acute chlorosis, typhoid fever, and tuberculosis had been successively made in this case.

CASE RELATED BY BYRON BRAMWELL, M.D. F.R.C.P.

Before the Border Counties branch British Medical Association.

The extraordinary case, which is known under the name of the "American crowbar case," shows how profound these mental symptoms may be; and at the same time illustrates the enormous reserve which Nature possesses, and the marvellous recoveries which sometimes take place after the most serious injuries. The details of this remarkable case (I quote from Ferrier) are as follows:

"The subject of the lesion was a young man, Phineas P. Gage, aged 25. While he was engaged tamping a blasting charge in a rock with a pointed iron bar, 3 feet

7 inches in length, 1¼ inch in diameter, and weighing 13¼ lbs., the charge suddenly exploded. The iron bar, propelled with its pointed end first, entered at the left angle of the patient's jaw, and passed clean through the top of his head, near the sagittal suture in the frontal region, and was picked up at some distance covered with 'blood and brains.' The

patient was for the moment stunned; but within an hour after the accident he was able to walk up a long flight of stairs and give the surgeon an intelligible account of the injury he had sustained, His life was naturally for a long time despaired of; but he ultimately recovered, and lived twelve years and a half afterwards. Unfortunately, he died (of epileptic convulsions) at a distance from medical supervision, and no *post-mortem* examination of the brain was made; but, through the exertions of Dr. Harlow, the skull was exhumed and preserved. Upon this the exact seat of the lesion can be determined. The line of union of the cicatrices of entrance and exit, however, allowed a pretty accurate estimation of the track of the bar during life, and Dr. Bigelow did so with considerable accuracy.

"Dr Bigelow, who examined the man two years after the accident, thus describes the appearances presented: 'A linear cicatrix of an inch in length occupies the left ramus of the jaw near its angle....The eyelid of this side is shut, and the patient is unable to open it; the eye considerably more prominent than the other...(Vision lost.—Harlow.) ...Upon the head, and covered by the hair, is a large unequal depression and elevation....A piece of the cranium of about the size of the palm of the hand, its posterior border lying near the coronal suture, its anterior edge low on the forehead, was raised upon the latter as a hinge, to allow the egress of the bar; it still remains raised and prominent.'

"From his examination of the skull itself, Dr. Harlow thus describes the track, of the bar: 'The missle entered, as previously stated, immediately anterior and external to the angle of the inferior maxillary bone, proceeding obliquely upwards in the line of its axis, passed under the junction of the superior maxillary and malar bones, comminuting the posterior wall of the antrum, entered the base of the skull at a point the centre of which is an inch and a quarter to the left of the median line, in the junction of the lesser wing of the sphenoid with the orbital process of the frontal bone, comminuting and removing the entire lesser wing with one-half of the greater wing of the sphenoid bone, also fracturing and carrying away a large portion of the orbital process of the frontal bone, leaving an opening in the base of the cranium after the natural efforts at repair by the deposit of new bone of one inch in its lateral, by two inches in its antero-posterior, diameters.' Dr. Harlow does not describe the further track of the bar through the frontal bone, but you will clearly see from the figures that the whole lesion is situated anterior to the coronal suture. If, now, you will compare the track of the bar through the skull and brain with the diagram before you, showing the relations between the skull and the brain, you will, I think, have no doubt in convincing yourselves that the whole track is included within that region of the brain which I have described as the prærrontal region, and that, therefore, the absence of paralysis in this case is quite in harmony with the results of experimental physiology. The only other region which the bar could have injured is the tip of the temporo-sphenoidal lobe and the outer root of the olfactory bulb. Respecting the condition as to smell, nothing is, however, said either by

Bigelow or Harlow. This case is generally quoted as one in which the man suffered no damage bodily or mental. But hear what Dr. Harlow says as to his mental condition: 'His contractors, who regarded him as the most efficient and capable foreman in their employ previous to his injury, considered the change in his mind so marked that they could not give him his place again. The equilibrium, or balance, so to speak, between his intellectual faculties and animal propensities seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating, devising many plans for future operation, which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in his intellectual capacity and manifestations, he has the animal passions of a strong man. Previous to his injury, though untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart, business man, very energetic and persistent in executing all his plans of operation. In this regard, his mind was radically changed, so decidedly that his friends and acquaintances said he was "no longer Gage."'"—*British Medical Journal.*

CASE OF SUCCESSFUL SIMULTANEOUS TRIPLE AMPUTATION FOR RAILWAY INJURY.

BY JOHN ASHHURST, JR., M.D.

This patient is brought before the College largely on account of the rareness of simultaneous triple major amputations. It is quite possible that some of the Fellows may not have had an opportunity of seeing such a case.

The patient is a Moor, twenty years of age. He was admitted to the University Hospital, November 28th, 1887, having been run over on the Pennsylvania Rail road. I saw him within two hours after his admission. I found a compound comminuted fracture of the right leg, the laceration extending above the knee; complete avulsion of the left leg, the limb having been torn off in its lower third; and a compound fracture of a severe character of the right hand and wrist. There was also a compound fracture of the skull, involving the frontal bone. This, however, was an impacted fracture, of course without much depression, and did not require interference. In addition to these injuries, there were numerous brush-burns and contusions, some of a grave character. One upon the left buttock was so severe that the separation of the slough left a cavity fully two inches in depth. Notwithstanding these serious injuries, the patient's general condition was very good; he had reacted thoroughly, and his axilary temperature was 99° F. Under these circumstances, I felt justified in proceeding to the immediate removal of the injured limbs, and amputated successively the right thigh by the antero posterior flap method; the left leg, about its middle, by a modified Sedillot's external flap operation, the modification consisting in making both flaps from without inward, instead of cutting the external flap by transfixion; and the right forearm by an oval incision, making use of the uninjured skin of the back of the hand and wrist. Certain variations from the ordinary procedure in amputations I shall refer to when I come to speak of what I have ventured to term the technique of multiple amputations. After the operations were completed, the temperature had fallen only to 98° F. The patient had no bad symptom and rapidly recovered, and as you see him now all his wounds are perfectly healed, and he is entirely well.

There are reported four or five triple amputations not synchronous. I have myself resorted to synchronous triple amputation in two cases. Several years ago, I had occasion to perform this operation, removing both legs and the right forearm of a man, aged forty-five years, of intemperate habits. The patient died on the tenth day, the fatal result being due rather to the visceral lesions resulting from alcoholism than to the operation.

Double amputations are comparatively numerous. I have personally performed fifteen such operations, this number not including two successful cases of double partial amputation of the feet. I have done fifteen double major amputations, of which five have ended in recovery. One of the patients who recovered, I had the honor of exhibiting to the College some years ago; the amputations in his case were through the right hip joint and through the left leg. In the fatal cases, seven of the deaths occurred within less than one day, and were, therefore, the immediate result of the shock of the injury and of the operation. Three patients died, one in three days, one in four days, and the third in eighteen days. The latter would probably have recovered, but that he also had suppurative disease of the middle ear, which appeared to be the cause of the pyæmia which proved fatal; for when the stumps were examined, after death, they were found to be in good condition.

With regard to what I have termed the technique of multiple amputations, there are some points which my experience justifies me in urging upon surgeons as of importance in promoting success. In the first place, it is very important that the time occupied by the operations should be brief; that the operations should be done systematically, so as to keep the patient under the anæsthetic as short a time as possible, the next point, perhaps of even more importance, is to keep up the temperature of the patient during the operations. I have been led to think that this is, perhaps, of more importance than anything else. Of course, loss of blood must be scrupulously guarded against, and loss of blood directly causes loss of temperature. In this case, hot cans were kept around the patient during the entire operation; and, in order to save time, I operated systematically, the tourniquet and Esmarch bandage being both employed to prevent any loss of blood. I began with the most serious injury, and this is, I think, a point of importance. It may happen that, after the removal of one limb, it will be found that further operation must be postponed on account of the patient's condition, and then it is, of course, better to leave him with the less serious injuries. In this case I began with the thigh. After amputating the limb, I secured the main vessels, which were readily found. I attempted to tie the arteries with catgut, but as the ligatures broke, I substituted silk, and, in order to save time, left both ends uncut. I next amputated the right leg, securing the vessels in the same manner, and then passed to the forearm. I then came back to the right thigh, screwed up the tourniquet and removed the Esmarch bandage, and secured all the vessels that required ligature, then passing to the other limbs in the same order as before. After the vessels had been secured in each case, a towel dipped in a hot antiseptic solution was placed between the flaps. The wounds were then dressed in the same order, and in this way the operation was completed in a comparatively short time.

The points which I have mentioned I believe to be of great importance, and I think that much of the disappointment of surgeons from these operations is due to a want of attention to these matters.

I should also say that, in order to preserve the bodily heat, I did not use irrigation during the amputations. I think that this often seriously reduces the temperature; and even in comparatively slight operations where it has been used, I have seen the temperature fall to 97° F., and even 95° F. I think that in any grave case, it is better to omit it, and to rely upon washing with hot antiseptic solutions before and after the operation. Also, the packing of wet towels around the seat of operation, as is very commonly done, tends to depress the temperature, and in grave cases should be omitted.

I think that it is to an observance of these precautions that I have owed success in this case, and in many other serious operations of various character.—*Polyclinic.*

COMMUNICATION.

To the Editor of the Lancet.

From recent correspondence, which appeared in one of our daily papers, relative to a Maternity Hospital, which, I think, was signed by one or more of the directors

of the General Hospital, I presume the management is sought for by the Governors of the same institution. To this arrangement, however, there are several cogent objections. And I cannot do better than raise them at the present time, now that the question is on the tapis.

In a matter that concerns the public intimately, and particularly that portion of it who require the shelter of such an institution. It is of paramount importance that the location as well as management should, be based upon the highest sanitary precautions. Monopoly ought to be a dead letter, and should be excluded from the deliberations and decisions arrived at in the establishment of such an institution.

The first consideration is location, based on sanitary principles. Proximity to a General Hospital is most objectionable, and should not be entertained. In fact the distance between these two hospitals should be as great as possible, within reason. It has from time immemorial been an accepted condition that Lying-in Hospitals in connection with General Hospitals are not salutory, but on the contrary positively unsafe. I can well remember, years ago, when this fact was recognized and acted upon by the medical staff of the Montreal General Hospital. Time after time had the wards devoted to Maternity purposes been closed, after a devastating mortality, and notwithstanding a long interval of disuse, wherein they had been thoroughly cleansed, ventilated, whitewashed and disinfected in accordance with the best recognized means. Still the scourge recurred very soon after resumption of them. Finally the institution was removed to some distance from the contamination and has ever since been governed separately. Such has been my experience, which I testify to *anent* this unnatural union. Let the governors of the General Hospital pause ere they give their influence and support in behalf of such a movement.

Truly a Maternity Hospital is much wanted in this city. The past winter verified this fact, yet it is not wanted under the circumstances I have just portrayed.

To-day, the men of deepest thought in our profession have without a dissenting exception, declared that parturient woman or women after parturition, should be most rigidly shielded from any pernicious influence. As regards this statement I challenge contradiction. And I further say, pernicious conditions exist, more or less, all the time within the walls or even in the vicinity of a general hospital. Take for example scarlet fever or erysipelas. To the lying-in woman, the presence of the former disease, means a condition of a most grave and ominous portent, while the latter is singularly formidable. A susceptibility, exists to take scarlet fever which is of a most dangerous nature and peculiarly fatal. Thus, have we not only diseases of Zymotic origin, fatal to parturient women, but we have within an hospital and its environs, all sorts of wounds, in all stages of progression,, and within its environs septic or dead material which may be easily or carelessly transposed from the dead house or post mortem table. It is not necessary to furnish a detailed catalogue of objections that may arise in this connection. Suffice it to say that any unprejudiced physician will bear me out in the assertions I have made, at least I think so.

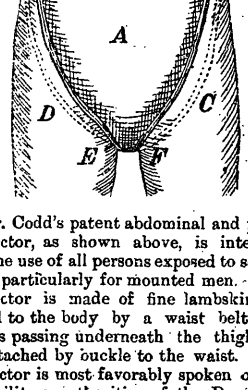
While I write I must confess that I am surprised to learn that our city fathers in their wisdom have voted $1,500 for maternity purposes, and it is presumed that the grant will be entrusted to the General Hospital authorities for disposition. I should say that whomsoever is deputed to expend this amount towards the purpose for which it was granted, will bear in mind the undeniable fact, that wheresoever the spot is chosen for the erection of a Maternity Hospital, it will be at a distance as remote as possible from the General Hospital, or any contaminating source. I have endeavored to foreshadow the evils that may be counted upon should such a consummation be carried out, I assert their probable existence and in due time they will have to be dealt with when too late to remedy. I trust you will devote the influence of your valuable journal in combating what threatens to be an unfortunate move in the near future.

R. C. Howden, M. D.

MANITOBA, NORTHWEST AND BRITISH COLUMBIA LANCET.

A movement is on foot seeking from the Dominion Government relaxation of the tariff on surgical instruments brought into Canada, and we trust the authorities will see their way to granting the request, not alone in the interests of the medical profession, but in that of the general public. A large majority of young men on obtaining their qualifications, find the dollars and cents wherewith to commence the battle of life not superabundant. They have usually to play a waiting game until patients come, but in the meantime must have the wherewithal to live. Settling down in the country districts, not only must they have a certain library for constant reference, but it is essential that every surgeon in the country should be provided with all the necessary appliances for operations which an emergency may call for. The heavy duty on books and instruments is of serious moment to the young struggling surgeon, and his not having them may be of very serious moment to the community amongst whom he settles. Encouragement of home manufacture and production is no doubt right, but in a case like this when the manufacturers of reliable surgical instruments are comparatively few throughout Europe and there are none in Canada, it necessitates the purchase of imported articles by all surgeons practising in the Dominion. It will be a graceful act of the Government in the interest of all, to allow both medical books and surgical instruments and appliances to be imported into Canada free of duty. It would be a boon to the young practitioner, it would be a benefit to the public. The day will come when a Weiss or Savigny, *et al.* will arise in Canada, but until his advent the indulgence of the Government in this direction is urgently called for. In the London *Lancet* of April 14, attention is directed to the practitioners' knife, manufactured by Messrs. Arnold & Son, the well known instrument makers, of West Smithfield, London. "It consists of a tortoise shell handle, in which are set six different instruments, three of which arise from each end of it. The instruments are 1, a finger knife; 2, a finger saw; 3, Symes' abscess knife; 4, a gum lancet; 5, a tenotomy knife; 6, a sharp pointed curved needle. Besides these there is a groove cut out of the under surface of the tortoise shell itself at each side of the handle, which holds a probe and director respectively; and these two latter are so arranged as to permit of being screwed together so as to form one piece. It is of a convenient size, being no larger than an ordinary pocket knife. Further, it is compact and cheap, and is of special value to those who practice in the country. We hope to give a cut of the instrument and its price in a future number, by which time the Ottawa authorities may have considered the matter and permit of its being acquired at the London price.

DR. CODD'S ABDOMINAL AND PUBIC PROTECTOR.



Dr. Codd's patent abdominal and pubic protector, as shown above, is intended for the use of all persons exposed to severe cold, particularly for mounted men. The protector is made of fine lambskin, secured to the body by a waist belt and straps passing underneath the thighs to be attached by buckle to the waist. The protector is most favorably spoken of by the military authorities of the Dominion of Canada, and has been adopted by them. Dr. Codd is sanguine that his protector will be generally used in the military and

naval services of the world. The boon to persons exposed to vicissitudes of weather by the use of it will be incalulable. The idea was taken from Dr. Codd's observing during his long acquaintance with the Northwest, that the Indians invariably guarded the abdomen during the winter months with rat skins, and that the Mounted Police, engineers, and others wore folds of flannel around the loins during the cold season. Following out this idea, Dr. Codd has devised a protector which will eminently answer the requirements it is intended for. Equestrians are especially liable to affections of the organs situated in the pelvic region arising from exposure to cold, which will be entirely guarded against by the use of this article of apparel, for which we may safely predict a very large demand. Mr. F. Osenbrugge, fur dealer, Notre Dame St. east, Winnipeg, is the vendor of it for the Northwest.

NOTICE TO THE PROFESSION.

The profession are invited to attend a meeting at the Leland House on Monday, 28th of May, at 4:30, for the purpose of forming a Medico-Chirurgical Society for the Province of Manitoba.

The editor of this journal having been applied to on several occasions for the names of qualified medical men residing in certain districts, has decided to avoid the unpleasantness of replying to such queries, and in the absence of a medical directory, to publish in each number of the LANCET a directory of the medical men practising in Winnipeg, throughout the Province, Territories, and British Columbia. To cover the cost of publishing an annual fee of one dollar will be charged, and all gentlemen practising in the above districts on forwarding this amount, with their names, qualifications, past or present appointments, if authors, the names of their works, also schools studied at, will be published in full in each issue of this journal, commencing with the first issue in July next.

BOOKS.

J. H. Bates, Advertising Agency, Park Row, New York, has become sole proprietor of this well known agency, and has removed his establishment to the Potter building, 38 Park Row, corner of Beeekman Street. Mr. Bates' long experience of over a quarter of a century, commands for him a position among advertising agents which few can aspire to. It is superfluous to remark that any person transacting business with Mr. Bates will be more than satisfied.

MISCELLANEOUS.

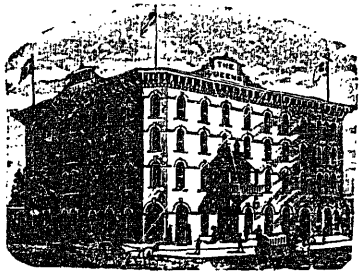
DANGER IN ANTIPYRINE.—At the *Academie de Medecine*, Feb. 14, 1888, Prof. Ball reported a case of intoxicatio.., observed by Dr. Jennings in a woman, æt. 67, suffering from nodular rheumatism. The patient had been taking antipyrine for eight days in the quantity of 2-50 gm. per diem, when vaso-motor troubles appeared, first characterized by erythematous, spots on the face, and swelling of the eyelids. Conjunctivitis and a generalized rash followed, and these symptoms were supplemented by anorexia, vomiting, tinnitus, torpor and refrigeration. The symptoms disappeared readily, however, after the administration of a few drops of the tincture of belladonna. Mr. Jennings thought antipyrine should be used circumspectly in the cases of aged or impressionable subjects. Drs. See and Dujardin-Beaumetz thought this statement would serve to warn the public of the untoward symptoms to which antipyrine—whose use was abused at present—might give rise. They thought, however, that the symptoms were not those of intoxication, properly so called, and did not justify the use of belladonna, still less of atropine. They had sometimes observed gastric troubles following the giving of antipyrine, but thought these were due to impurities, as the medicament often contains benzene. Re-crystallized antipyrine was recommended; but if gastric symptoms persisted, they should be combated, the professors thought, with bicarbonate of sodium and Seltzer water. *Arch de Pharm.* March 5, 1888.

TREATMENT OF STRANGULATED HERNIA.—Dr. Zeinemann, of Weimar, has added to the list of cases in which the reduction of strangulated hernia has been effected without operation by means of the plan proposed by Finkelstein—viz., the application of ether. One patient was a peasant woman of forty-five, who had an inguinal hernia on the right side. Without any evident cause this became strangulated. Taxis was tried without result. The patient's condition was very low. Dr. Zeinemann laid her on her back with the pelvis raised and the knees flexed, and poured ether over the region of the hernia, a tablespoonful at a time, having taken the precaution of applying oil over the vulva and anus to prevent the severe smarting which ether causes when it comes in contact with mucous membranes. In half an hour the tumor was perceptibly smaller, and a very gentle attempt at taxis was now sufficient to return the gut. The next morning the patient was perfectly well. Dr. Zeinemann recommends that in cases of strangulation much time should not be given up to manipulation, as the earlier ether is used the better. The main effect of the ether is, of course, to cool the hernia and its contents, the gaseous portion of them being in this way greatly diminished in volume. Besides this, the cold sets up active peristaltic action in the gut and renders it more moveable. If so much time has elapsed before the commencement of this method of treatment that the muscular coat has become paralyzed, there is less hope of a successful result. Still, the ether treatment may always be tried before resorting to operative measures, which, in spite of the immense improvement in their results by the introduction of antiseptic surgery, are by no means entirely free from danger.—*Lancet.*

IT should be remembered that infants require water to drink as well as milk. It does not follow, that because milk is a liquid, it is capable of satisfying thirst. On the contrary, being warm as it is drawn from the breast, it causes thirst after it has remained in the stomach for some time, the same as other food. It is this sense of thirst which causes healthy, breast-nourished infants to often cry for long periods of time after freely nursing. It is claimed that there are many cases of indigestion due to insufficiency of the child's gastric juice which would be greatly benefitted, or even cured, by allowing the child, occasionally, a drink of decidedly cool water.—*Scientific News.*

BEER.— Professor Schwackhoffer delivered a lecture recently to the Vienna Hygienic Society on the subject of beer. After giving some statistics on the consumption of this beverage, the lecturer went on to describe its manufacture and adulteration. The birthplace of beer is Egypt. A papyrus has been discovered on which a father reproaches his son for lounging about in taverns and drinking too much beer. From the Egyptians the art of brewing descended to the Ethiopians. Whilst the Romans despised beer, the Germans of North Europe fully appreciated its good qualities. However, the refreshing draught became more popular in the first half of the Middle Ages. In the beginning only convents obtained the monopoly of brewing beer, but later on the privilege was extended to lay corporations. In Austria the first brewery was established in Vienna in 1560, and beer soon became the favorite beverage of all classes of society. At present the yearly production throughout the whole world amounts to 5,600,000 gallons, England taking the lead, with about 2,000,000 gallons.

IN a case of tetanus neonatorum, in which a Belgian physician had given chloral and other remedies without benefit, he determined to use ether by inhalation. In addition to this, artificial respiration was employed from time to time by means of a tube inserted into the nostrils. Some pieces of Rigollot's mustard-leaves were also applied to the chest. The child was laid on its side, according to a suggestion made by Marion Sims. The result of this treatment was, that in a few hours the little patient's condition had improved to a very marked degree. The next day profuse perspiration occurred, and the spasms entirely ceased. Shortly after this the child was convalescent.



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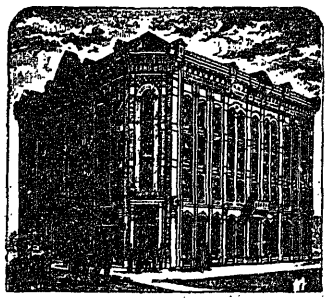

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