by what means the bleeding from the femoral artery was so quickly arrested. In situations, where admissible, no better method need be desired. In illustration of the happy results of acupressure, aided by perfect immunity from motion and the avoidance of all dressings, I hope I may be pardoned for stating briefly the outline of one of my cases, although already published elsewhere. At the Aberdeen hospital I performed amputation of thigh in a delicate looking boy, six years of age, on account of extensive disease of the knee-joint and the condition of the leg. The femoral and other two arteries were acupressed by the Aberdeen method, by the twist, and another vessel was compressed by the fourth method. The pins were withdrawn in forty-four hours, without being followed by a drop of blood, and, the patient said, without causing any pain. After operation I thought it necessary to caution the little patient not to touch the acupressure pins, which he called the pins with the beautiful heads, and promised to give them to him after their removal. He took care not to touch them, or to allow any person except myself to do so, and, to his great delight, sent them home by his father for preservation until his return. Since the operation, the little boy has slept as well as ever he did in his life; has been anxious for his food; has had no uneasy sensation of any kind, and has been in the highest of spirits. The stump healed perfectly and throughout, either by immediate union or by primary adhesion. The healing must have been by one or other of these processes; and I am inclined to think it must be by the former, as no medium of union is discoverable at the edges of the wound. No dressings have been employed, or retentive appliances of any kind, except the few sutures and the three strips of isinglass plaster which were applied before the patient was taken from the operation table. The sutures were removed on the fourth day. This little patient has a fine musical ear; and a few days after the operation, when I entered the ward with the surgical pupils of the hospital, he was whistling most beautifully "The Braes o' Mar," and amusing himself by passing a little model carriage over an inclined plane which he had got constructed on his bed. He continued to whistle the above and other airs until it was his turn to be visited. This is one of the many instances we have lately seen in the Aberdeen hospital of a capital operation, and after treatment having been made delightful to the patient as well as to the surgeon. By the aids of chloroform, acupressure, no dressings, and the most perfect immunity attainable from every movement of the stump, many of the hinderances to these gratifying surgical scenes are removed. Since the use of dressings was discontinued in the Aberdeen hospital, patients have looked forward to the visit of their surgeon as the happiest event of the day, instead of, as formerly, dreading the visit and being thankful when it was over. [Applause.]

Dr. MORGAN: As a sequel to the interesting discussion we have just heard, I beg to offer a room in the College to Dr. Pirrie to-morrow morning, and the use of a subject, if he wishes it. [Applause.] I am sure we shall all be most anxious to see his demonstration.

Dr. PIRRIE; I must leave Dublin at two o'clock to-morrow; but, at any hour from five in the morning, it will give me the greatest pleasure to give a demonstration.

It was then arranged that the members should meet Dr. Pirrie at the College of Surgeons, at seven o'clock the following morning, for the purpose of seeing his demonstration.

MEDICAL CHANGES AT CHATHAM.—Deputy Inspector-General Bowen has been appointed to assume medical charge of the garrison. Surgeon J. Balfour Cockburn, M.D., R.E., is in charge of the Lunatic Hospital during the absence on leave of Staff-surgeon Major Blatherwick. Staff-Assistant Surgeon Madden is under orders for service at Ceylon. Staff-surgeon Slaughter is on leave till he is required for embarkation for China; and Staff-assistant Surgeon Ferguson is attached for duty to the 1st depot battalion.

THE WILL OF SIR WM. LAWRENCE, F.R.S., Serjeant Surgeon to the Queen, and late principal surgeon to St. Bartholomew's Hospital, was proved on the 1st inst. by his son Sir John James Trevor Lawrence, Bart., the sole acting executor; power being reserved to his two daughters and to his nephew Edward John Bevir, Esq., barrister, Lincoln's Inn, the other executors and trustees. The personalty was sworn under £40,000. The will is dated November 13, 1865, and there are two codicils, October, 1866, and February, 1867, and he died July 5, aged 84. He has left his books, MSS., and papers equally between his son and daughters; and his jewellery, plate, pictures, horses, carriages, and furniture to his daughters, as well as his interest in his leasehold residence, Whitehall-place. He has empowered his executors and trustees to lay out his Ealing-park estate for building purposes, and together with all his other estate, real and personal, to be held in trust; the proceeds therefrom to be divided equally between his son and two daughters, whom he appoints residuary legatees.

CASE OF DEATH FROM ANEURISM OF THE RIGHT OVARIAN ARTERY.

By W. M. WHITMARSH, M.D., Hounslow.

ON the eve of September 23rd, 1866, I was summoned to visit Mrs. B., of Lampton, who had been taken suddenly ill. Not being at home when the messenger arrived, my assistant (Mr. Samson) went in my stead, and found the patient in a state bordering on syncope, with a fluttering pulse, great prostration, and violent retching. Very little could be gleaned from her; but she complained of great pain in the abdomen. To alleviate this, he gave her some effervescing medicine, with opium, and ordered warm applications to the feet and axillæ.

Early next morning, her friends sent to inform me that she was much worse, and desired that I should call and see her immediately.

On visiting her, I found her in bed, lying on her back, her face blanched, with an expression of pain on her countenance. The surface of the body was almost cold, and the pulse hardly perceptible. The sickness had continued, and the pain in the abdomen had not been relieved; the latter returned a dull sound on percussion. She had passed very little urine during the night, but declined having the catheter used. From her sister, I ascertained that she was 37 years of age; and had been married twelve years, four of which she had spent in America. She "had never been regular", but when she menstruated the discharge was pale and scanty, and accompanied with pain. She had never given birth to a live child, but had had four miscarriages. Her occupation had been that of a laundress, at which she had worked rather hard. She felt the commencement of this attack when she was lifting a basket of clothes from a cart. It began by a feeling of faintness which compelled her to sit down; after this she was removed home.

I questioned the patient whether she had lost blood in any way. She replied she had not. I felt convinced, however, that she had; and told her husband that she must have ruptured a vessel in the abdomen, and doubtless she would not survive many hours. I ordered brandy and water with ice, and opium to relieve pain. She died six hours after my visit.

On the 26th, I made a *post mortem* examination, and found the lower half of the abdomen covered with clotted blood; so much so, that the viscera were not discernible. The coagulum weighed about three pounds. On removing it, I traced the extravasation to an aneurism of the right ovarian artery, large enough to contain a small pigeon's egg. The sac was still filled with clotted blood. I removed it with the uterus, intending to preserve them in spirit; but the friends of the woman would not let me carry them away.

ON THE TREATMENT OF DISEASED JOINTS BY ESCHAROTICS.*

By F. KIRKPATRICK, M.D., Dublin.

I AM permitted the honour of addressing you, sir, and the members of the British Medical Association, upon the subject of Diseases of the Joints and Joints, principally with regard to a new mode of treatment by incision and the deep introduction of the caustic potassa cum calce into the cancellated structure of the articulating extremity of the bone in the incipient stage, or that of inflammatory congestion, and into the joint itself in the very advanced period. I believe that the present era of the profession is peculiarly apt for the consideration of this subject, inasmuch as the literature of this portion of surgery is daily becoming more and more unsettled and contradictory; some surgeons of highest authority advocating early operative interference, whilst yet the constitution is unimpaired by the exhausting progress of disease; other distinguished men putting their faith in rest, with proper mechanical adjustment, and advising that patient trust should be placed in the healing operations of Nature. Between those contrasted extremes, every variety of opinion and practice may be found to prevail, as boldness excites to action or caution inclines to delay.

The statistics of conservative surgery, more particularly of the great revived operation of excision of the knee-joint, are the reverse of satisfactory; the high expectations formed from the successful cases have not been fulfilled by a sufficient percentage of cures, and in many instances the reported cures have not been permanent.

In the last work on *Joint-Diseases*, published this year by Mr. Holmes Coote of St. Bartholomew's Hospital, the following conclusions are arrived at, based on the statistics of Dr. Hodges of Boston: "Considering the mortality after the operation, excision for hip-disease does not

* Read before the annual meeting of the British Medical Association in Dublin, August 1867.

merit a very favourable verdict; excision at the knee, although occasionally yielding brilliant results, is an operation to be practised with great reserve; excisions at the wrist-joint, being followed by a large proportion of failures, and when successful the usefulness of the hand being so limited, are operations not sanctioned by sound judgment or conservative surgery. Operations on the foot for strumous disease usually yield unsatisfactory results." Dr. Hodges of Boston, in his essay on *Excision of Joints*, observes: "Out of a considerable number of cases, one-third died, and more than one-third are known to have failed." I repeat, then, that a period has arrived when doubt and uncertainty pervade this most important department of surgery; and it has become a question as to whether there was not a greater saving of human life when early amputation was the rule, than in the interval that has since passed over. It is also specially worthy of remark, that excision has rarely, if ever, been performed in private practice.

At the commencement of his magnificent address at Chester, Mr. Bowman called surgery "the hands of God, the human hands." I may be permitted to add, hands never to be put forth to the execution of any operation, but when their possessor can say that he would himself consent to its performance were he the patient. I believe that the rigid application of this golden rule in surgical ethics would very much limit the future performance of operations for excision, save only at the elbow-joint.

In the surgical charge of the North Dublin Union, the largest chronic hospital with one exception in this country, I have had, during the last twenty-five years, ample opportunity of judging of the effects of rest in the treatment of those affections; and the result of my experience has been most unfavourable. A certain amount of success may be looked for in the treatment of the upper classes, where the purest air, the best nourishment, the most improved mechanical appliances, together with means of easy locomotion, can be commanded; but, with the lower classes, I have found that the treatment by rest has been a history of failure, disease spreading from bone to bone in the smaller articulations, and, before the consolidation of a large joint could be completed, organic disease having in general invaded the liver or some of the other internal organs. This unsuccessfulness forced me, some years ago, into the discovery of this treatment by cauterisation which I propose.

Having often remarked the healthy reparative action that followed the use of the potassa cum calce in sinuses in the groin, neck, and axilla, I began to introduce it into fistulae leading down into diseased bone, at first with caution, then more boldly; and finally, disregarding Sir B. Brodie's strong injunctions against letting potassa fusa enter a sinus, I proceeded to carry its action deeply down, converting the small contracted painful orifices into large funnel-shaped openings and bringing the carious bone into view, and within reach of the further application of the caustic. In this manner, several cases of disease of the carpus and tarsus, and of the flat and superficial bones, were successfully treated; the caustic being re-applied at intervals of a few days, to keep the orifices freely open until the carious bone had disappeared or was covered over with firm granulations.

In a similar manner, several cases of chronic necrosis were treated, the caustic being very freely used, destroying all foul undermined integument, and leaving, after the removal of the sloughs, large clean circular openings, more than an inch in diameter, and extending deeply down to the sequestrum, into contact with which the caustic, in stick and powder, was freely brought. In this manner, two cases of necrosis of the fibula, very similar to each other, in which numerous openings led down to diseased bone, and where the patients were reduced to the lowest state by years of suffering, were perfectly cured within six months.

In a case of necrosis of the heel in a delicate lad, who was deformed by the effects of an old hip-disease, a caustic perforation was made at each side of the heel, and the powder was brought into contact with the dead bone, until it was so removed that a catheter was passed quite through the heel; no inflammation nor constitutional disturbance having been caused or excited.

I can speak with the utmost confidence of the application of this remedy in all such cases of caries affecting the superficial bones. The caustic perforations may be multiplied in proportion to the extent of the disease, respect being paid to important nerves and vessels, and care being taken not to destroy sound structure or periosteum beyond the limits of the diseased surface of the bone. Before I speak of the application of this remedy to the arrest of the early stage of joint-disease, I may be permitted to allude to the important question, as to the structure which is first attacked. My own opinion accords with those authors who believe that, in the great majority of cases, the disease commences in the cancellous structure of the heads of the articulating bones. That there are rare cases where it begins in synovial membrane or cartilage, and mixed ones which, seen at a later period, may perplex diagnosis, I fully believe; but I consider that those instances where the

fons et origo mali arises in the bone preponderate enormously. My own opportunities of obtaining pathological evidence have left me without a doubt on the subject, and the practice which I propose is based upon that conclusion.

In Sir B. Brodie's great work on the Joints, he recognises the fact of the frequent origin of disease in the cancellous structure; and he describes the distension of the heads of the bones with a reddish medullary fluid, then softening of the tissue, and finally suppuration; the matter either forcing through to the cavity of the joint, or reaching the surface at some position more or less remote; but, whilst he thus clearly recognises the cause, and graphically describes the disastrous effects, he forbids the remedy, and strongly cautions against an early or premature opening, although he had himself with success trephined the heads and shafts of the long bones in cases of painful and circumscribed abscess. That he attempted to give relief in a similar manner in those cases of acute articular osteitis which he so circumstantially describes, is more than probable; and I therefore infer that his caution against the early opening of an inflamed bone, was founded on his experience of ill consequences that followed such a proceeding.

Notwithstanding the teaching of this great authority, I venture to propose interference by operation at the very earliest moment that congestive inflammation of the head of a bone can be fairly diagnosed; and I state with confidence, that a perforation made into the cancellous structure, if freely cauterised with the potassa cum calce, will be followed by relief from pain, and that the inflammation which ensues will be only such as is attendant on, and accompanies, reparative action.

The caustic tunnel may be made at once by cutting down on the bone and piercing the compact tissue with a strong knife, trocar, or small trephine, and then freely cauterising the full extent of the perforation; or, in less acute cases, a small eschar may be first made, the centre of which being incised, the caustic can be introduced; and, by combining its action with the knife, the tunnel can be carried deeper from day to day in a gradual manner. By means of this combined caustic perforation, I succeeded in arresting disease in its first onset in the head of the radius, in the case of a young man, aged 24, in the year 1861. Since that time, I have tried it with success in several cases of incipient disease in carpal, tarsal, and other superficial bones. I perforated the tibia above the internal malleolus in several instances with curative results; also the great trochanter in cases where its structure, or that of the head and neck of the femur were the seat of osteitis, the cavity of the joint being yet unaffected.

On April 26th last, I exhibited a young man at the Surgical Society of Ireland, into whose trochanter a caustic tunnel had been inserted on March 22nd preceding, and which was still freely open. The wasted buttock, obliterated fold of nates, and emaciated state of the entire limb, still existed to proclaim the nature of the disease, but all pain had ceased; the motions of the joint were in a great measure restored, and he walked about before the members of the Society without lameness, although, for three months before the operation, his thigh was flexed, he had constant pain in the hip and knee, and he could not admit abduction, or any extended motion of the limbs. This patient took his discharge to work on May 11th; the contour of the limb being almost restored to its natural fulness, and his general health quite recovered.

Although strongly recommending this treatment for the early stages of acute articular osteitis, and also for the very advanced periods, when caries is established or when a whole joint is converted into a foul suppurating cavity, my experience does not warrant me in advising the practice so strongly in the intermediate periods, where the head of a bone may be the seat of a diffused suppuration, possibly communicating with the joint itself; the caustic, I fear, in this condition of parts, could not extend sufficiently to protect from the constitutional disturbance and risk of pyæmia that might follow.

The principal merit I claim for this caustic treatment is, that it is a powerful, and at the same time the safest, means of correcting nature where she is manifestly in error, and of assisting her operations where they are directed aright; and here, sir, I have the boldness to start from the well-worn professional groove of bestowing a blind admiration upon the proceedings of Nature, as seen in her efforts to restore and repair diseases of bone. Instead of the *vis medicatrix*, which is so perfect and to be relied on in many of our ills, I assert that she exercises in those affections a *vis inimica*, a *vis perniciosa*. From the first onset of inflammation within the cancellous structure, all through the various destructive processes that ensue, she is engaged in hemming up and confining the engaged bone and perpetuating its diseased state; and her reparative operations only commence and become effective when, either by man's art or by her own late remorseful ulcerations, this imprisonment at the surface is interfered with and, in a greater or less degree, removed. The highest art, then, of the surgeon

is demanded to counteract and remove her mischievous operations from without, and to hasten, open up, and make way for her all-powerful reparative actions from within. I am fully convinced that this interference can be more safely and effectually attempted by the combined action of the knife with cauterisation, than by the knife alone; and I commend the treatment to my professional brethren with the greatest confidence, earnestly hoping that they will give it a fair trial, and that it may be attended by the same measure of success in their practice as it has been in my own.

ON CERTAIN FORMS OF BLOOD-POISONING.*

By J. V. HAWKINS, M.D., King's Lynn.

I AM very anxious to call the attention of the Society to that class of diseases that may be called preventable, although very difficult of prevention, and to direct their best considerations and inquiries in their own districts of practice to their extensive influences, their miseries, and destructiveness, and to the course which should be adopted to mitigate or diminish their ravages. I allude to those poisons that are absorbed into the blood, and exhibit their effects daily in the deterioration of the human race; and it concerns us nearly, as they prevail so extensively in the Anglo-Saxon portion of it. Syphilis is at the head of them; but I shall have something to say on malaria, and also on what may be called the voluntary poisoning of the blood by the pernicious habit of opium-eating, or, as in laudanum, opium-drinking.

With respect to the first named, what medical man but must have found its dire effects in every grade of life? It meets us at every turn; in the infant before birth and after birth, in youth, manhood, and old age; it pervades the system in every part, scarcely a tissue escaping; and the world, having no notion of its extensive diffusion, goes on, and takes but little heed. It invades every one of our senses by turn, to their destruction. Our vision suffers from blotches of cornea, and iritis; our hearing from necrosis of the temporal bone, and destroyed tympanum; the sense of smell, from diseases of cartilages and bones, producing flattening and deformity of the organ. The sense of taste is impaired by affection of the palate and by fissured tongue; and our sense of feeling in its morbid irritability. If the child attain manhood, he marries, perhaps, begets a wretched offspring of shrivelled and wasted children, having yellow complexions, aged looks, with snuffling breathing, and skin-eruptions over the body; and here truly it may be said—"The sins of the fathers are visited from generation to generation on the children." Look at the child growing up, or the unhappy wretch who has this poison coursing in his veins; the brittle and crumbling teeth, the brittle nails, the falling hair with its production of baldness, the rough and altered voice, or voicelessness from laryngeal ulceration, the diseases of bones, having nodes, racking the body with an agony of pain, whilst endeavouring to seek in bed rest and restoration from fatigue. Look at the exhausted expression and haggard looks you encounter in your daily walks, the lame, the blind, the impotent, I may say; and then consider, as you see such cases in their secondary or tertiary forms, whether, in such condition, you have not some misgiving that our art may fail ever to wholly eliminate the taint from the system.

I have given you a wretched recital of the most fertile source of degeneration and loss of physical power in the human kind, and now would ask—Is nothing to be done to stay the ravages of such a curse? Prevention is here most essentially better than cure. Away then with the cant of spurious morality, affecting to feel that it is encouraging the vice, to try and moderate the disease by inspecting the victims who propagate the contagion. Is it not, rather, merciful, to set them apart and endeavour to cure them? Call these indulgencies! sinful lusts of the flesh if you will; but, as they are likely to exist as long as human passions exist, do not attempt to ignore them. I am delighted to find a small movement lately in the right direction; but, I can say emphatically, they manage these things better in France.

With respect to malaria and its influences, we, who live in a flat country, and who are in close proximity to so much marshy land as to give name to a large and important tract of country (marshland) ought to be able to give useful and important information on the subject of intermittent fevers or ague, their mode of invasion, management, and treatment. Not much farther back than thirty years ago, if a stranger came to settle down in this ancient borough of Lynn, he would be very generally visited by a heavy penalty for his footing, in a sharp attack of ague, and would be fortunate if he did not incur a second visitation, although perhaps much modified, before he would be so acclimatised as to attain an immunity from further suffering. Gentlemen, it

will be pleasing for you to hear, as it is for me to assure you, that you run no such risk by your present visit. We have scarcely now an opportunity of studying a genuine case, certainly not in this town; it may haunt yet a little some of the outlying districts in a lighter form of its intermission; but two-grain doses of quinine, or five drops of Fowler's solution every four or five hours, soon, I find, jugulates it. The improved culture of land, with its deeper and more careful drainage, has not only improved the healthiness and beauties of the farmers' crops, (cereal as well as succulent) but has reared up in the farmer's house healthier children; so that, although he may not be aware of it, he has been a benefactor in every way. Notwithstanding, however, such improvements, we do meet with serious effects from the blood-poisoning of malaria in several parts of the country, inducing asthenia. Repeated attacks of intermittent disease, however slight, have a tendency to produce secondary results in the enlargement of the spleen and lymphatic glands; and then, by that mysterious influence which the former organ seems to exercise over the blood, deprives this in some way of its red corpuscles, and leaves an excess of white. Anæmia, leucocythæmia, such are the names of those appearances which denote bloodlessness. A remarkable prostration of strength then follows, having its usual accompaniments, sighing, yawning, listlessness, noises in the ears, giddiness, pulsations in the head, breathlessness, and faintness, loss of appetite, and a general feeling of good-for-nothingness, ending most frequently by a fatal termination in anasarca or dropsy. Malarious poisoning, however, even in a milder form, still leads on to every symptom of defective nutrition; it forms a considerable majority of our out-door chronic cases at the West Norfolk and Lynn Hospital, and we lack, unfortunately, in such cases, the appliances of a sufficiency of animal food, or a wholesome quantity of stimulants wherewith to combat it effectually at their own houses. They drag on therefore often, through years of shattered health, terminating generally in atrophy and exhaustion. Warm clothing, good food, and stimulants, seem to be the only weapons in our armoury, to do execution against these formidable influences of diseases from malaria.

I now come to the third part of my subject, that which I have called voluntary poisoning of the blood, or opium-eating. I shall enumerate some of its pernicious effects which are cognisant to all of us. It destroys appetite, induces thirst, disturbs the secretions of mucous membranes, occasions constipation, and impairs healthy digestion, and its excess produces drowsiness and coma; the pupils of the eyes contract almost to a point, the action of the lungs is diminished, and blood-purification is seriously interfered with. It disturbs the action of the liver, affects the secretion from the kidneys, and the saliva seems somewhat altered in quantity; under its use the complexion becomes changed, and assumes a kind of jaundiced character, well known to all who are conversant with its action and effects, so that they can very generally pick out an opium-eater. The children it does not destroy are stunted generally in their growth; and I am sure those who are not inhabitants of our town will scarcely be prepared to hear the extent of this evil. Some are not perhaps aware that Lincolnshire and the county of Norfolk consume more than half the opium imported into this country. Persons who have habituated themselves to its use take what would appear fabulous quantities, and I really hesitate to give you certain reliable information obtained by myself from several highly respectable chemists of Lynn, lest you may suspect me of drawing on my own imagination for my facts. Can you credit that a chemist sells in this town two hundred pounds of solid opium in a year, another 140 pounds, and from five to six gallons of laudanum in a week, also five to six gallons of Godfrey's elixir in a week, containing a pint of laudanum to every three gallons? Another house has sold even more than the quantity I have now named. The opium is put up in half-drachm packets, and a drawer is filled with them ready for sale. Many of the customers will consume three in a day, and there is now living in Lynn a woman who takes a quarter of an ounce of Turkey opium every day, and has done so for several years. Many go into these shops and take off an ounce of laudanum at the counter, and return in the course of the day for a similar dose; and one of our most respectable chemists told me, not many days ago, that a farmer out of Lincolnshire came to him and told him he wanted some good laudanum; on being asked how many drops, he laughed; "drops," he said, "give me an ounce and a half." The chemist looked at him, saw he was in the habit of taking it, and gave it him. He drank it down, and returned twice that day for the same quantity, (making four ounces and a half) before leaving the market, and then took home with him a half-pint bottle for future indulgence. Now if I had not the greatest reliance on my authority, I should have thought he was giving me a stray leaf from Baron Munchausen; but I know my informant to be one of the most truthful of men, and I am sure the statement is in every way correct. We learn therefore, how, by the use or rather the abuse of this drug, the system becomes tolerant of it to a remarkable degree, almost indeed to any extent. I

* Extract from the address delivered by Dr. Hawkins, as President of the Cambridge and Huntingdon and East Anglian Branches, at the annual meeting, 1867.