rently reported to have carried this line of treatment to some extent. "He was wont" (I understand from an old friend and patient of his, not, however, suffering from temper-disease) "to invite certain of his patients to drive with him; and then, at a certain distance from home, according to their capacity for walking, to request them to alight and walk back."* Romberg gives the case of a Parisian physician who compelled his hysterical patients to polish the floors of their own rooms, and this successfully.

The fact cannot be too strongly enforced that, after all, in the treatment of all forms of hysteria, whether those of the ordinary type or those exhibiting what may be called "temper" symptoms, the moral treatment is of the greatest importance. Of course, as regards *materia medica*, attendance to the state of the secretions, and especially to the general tone and strength, must be our aim (independent of removing reflex irritation, when its source can be determined); and, with regard to the latter point, preparations of steel of various kinds are, for the majority of cases, chiefly to be relied on. Though Romberg is very bold in giving his opinion that "the time may not be far distant when the analysis of the blood itself will be required to establish a complete diagnosis", there is no doubt that an anæmic state prevails in hysterical cases; and that, as he observes, a continued use of steel renders the blood a normal stimulus for the nervous system.

Whilst on this point, I cannot withhold referring you to some interesting observations made by Feuchtersleben (in his learned and interesting work on *Medical Psychology*, published by the Sydenham Society, p. 175) upon the action of blood upon the nerves, whereby it acquires a psychological importance. He quotes, among other matters, some very curious experiments of Denis upon animals and man, showing the psychological effects of the transfusion of blood. Wilder animals, into which the blood of tamer ones had been transfused, became more timid, and *vice versa*; and men who had been lethargic and indolent, in one case with convulsions, having calf's blood injected, became lively and conscious. One was cured of insanity by transfusion, and another of paralysis and mental debility. He observes that repletion and increased action of the vessels stimulate to activity the centripetal nervous filaments, which encompass these vessels, and thereby heighten the facilitated affections and reactions; and that increased plasticity and predominant arterial action lead to the same results.

I have in my hospital note-books several cases of various forms of hysteria of great interest, chiefly of hysterical paralysis and of hysterical vomiting. I hope shortly to bring before your notice a summary of these cases.

NOTES ON THE TREATMENT OF A FEW OF THE LESS COMMON COMPLICATIONS OF SCARLET-FEVER.†

By JOHN KENT SPENDER, M.D.Lond.,

Surgeon to the Mineral Water Hospital, and to the Eastern Dispensary, Bath.

IN the days of old pathology, nearly every disease was supposed to have its *complications* and *sequelæ*; like troublesome satellites, which were, however, most useful when absent. The words are defined by their etymology; and a complication was described as a pathological accident which went along with a disease; and a sequel was something which came afterwards, though obviously flowing out of the bad blood or bad tissues which the disease induced. Now, it is easy to trace out diagrammatic outlines like these, but less easy to make Nature always follow them. Look into that storehouse of medical erudition, Dr. Copland's *Dictionary of Practical Medicine*, and we shall find scarlet fever handled according to the fashion I have indicated; but the pattern is indistinct and even confused. What is technically termed a "complication", may, if deferred, become in point of time a "sequel"; and, similarly, a "sequel", if hastened, is changed into a "complication." Some of the phenomena thus designated are, of course, essentially different; but many others are separated purely by the matter of chronology.

In this paper, then, I neither desire nor pretend to draw a hard line between so-called complications and *sequelæ* as they occur in the clinical

history of scarlet fever. I venture to select three morbid incidents, or accidents, of high interest and often of dangerous gravity; and to make a few remarks on their pathology, in order the more fully to elucidate their treatment.

1. My first illustration refers to the *pyæmic inflammation of the joints*. This has been noticed by nearly every systematic writer on scarlet fever, though by many in such an imperfect way as to suggest that its importance was scarcely recognised. But the fact of morbid anatomy is, that not only may there be a transitory inflammation of synovial membrane, but an inflammation prolonged and intense, leading to suppuration in the interior of a joint, and ultimately to erosion and destruction of the cartilages. In short, the joint no longer exists as such for physiological purposes; and, under the most favourable circumstances, the patient recovers with dislocation or deformity. The wrist-joints seem particularly liable to disease, and next to them the knee-joint and the hip.

In the summer of 1863, I attended a scrofulous child severely ill with scarlet fever; the pyrexia was mild, but the wrists and right hip-joint became early and gravely involved; and, after a time, I discovered complete and irreducible dislocation of the head of the femur on the ilium. Besides these serious external lesions, a pulmonary abscess formed, which in a little while became a gangrenous vomica, and caused the incessant expectoration of fetid puriform matter. The poor child lived on in emaciation and suffering for nearly five years, and was killed at last by exhaustion and anorexia.

Very lately I have attended another case of scarlet fever in the person of a young woman, the daughter of a wealthy tradesman, and nursed with every comfort. The illness appeared to be proceeding in a most favourable way, when, one morning, I found that the temperature had risen a degree and a half since the preceding evening. The wrists were swollen; and here I may speak of the importance of distinguishing a *bonâ fide* joint-swelling from that cutaneous oedema which often accompanies specific fevers; further, the hands could not be flexed without pain, and there was more general pyrexia. The treatment was so successful that in four days the local symptoms had entirely gone away, and the disease went on to a quick and happy termination.

I have not noticed any special disturbance of the nervous system previous to the inflammation of the joints coming on. The thermometer affords a safe criterion of danger; it tells us that something approaches, the nature of which our sagacity must discover at the earliest possible time. And now that a good and practical paper (by Mr. Goodhart), in the last number of *Guy's Hospital Reports*, liberates us from the supposed necessity of keeping a thermometer in the armpit for fifteen or twenty minutes before a correct result can be secured, there is no reasonable apology for neglecting the daily use of the thermometer during attendance on a case of fever. In the majority of instances, "the mercury, at the end of three minutes, will be found, for all practical purposes, to be steady;" this is surely good news. And when we call to mind how we are puzzled sometimes over an obscure case, we ought to be grateful to a little instrument that often relieves an obscurity which has survived an anxious and frequent counting of the pulse, and an inspection of the tongue at least twenty times.

The two trustworthy means in the treatment of the intercurrent affection of the joints in scarlet fever are: (a) the local application of heat and moisture, and (b) the administration of quinine. Foment the joint or joints with some hot medicated fluid; surround each with a layer of cotton wool; and place over this, again, a piece of oil-silk, which should be tied securely down above and below the joint, so as to protect it from all inquisitive draughts of cold air. Let this process be repeated morning and evening; in short, do just what you would do for a joint afflicted with acute rheumatism. Then, without discussing the large question whether quinine is a so-called "specific" in scarlet fever, or whether it may be safely trusted as the chief medicinal factor in pulling a patient through a dangerous adynamic stage, one thing appears certain—that this articular disease may with great advantage be treated with quinine, administered punctually and perseveringly. Here, again, we see a close analogy between scarlet fever and acute rheumatism. In the latter of the two cases which I have rehearsed, I began the use of quinine without delay; one grain was given in an ounce of acidulated water every three hours, night and day; and, the bowels having been previously moved with castor oil, no other medicine was prescribed. The fall of temperature was the first notable fact, and this was distinct and abrupt on the day after the treatment was begun; and, again, in twenty-four hours after this, the heat of body did not exceed the normal standard. Simultaneously, the development of local symptoms was arrested. A grain of quinine was administered every four hours for two days more, and so gradually left off. The convalescence was rapid and complete.

Now, when we study the action of quinine in a case of this kind,

* This lady remarks: "He had to train me to regain walking powers; but this he did by ordering me to commence the process very gently, three minutes in the hour, and this increased gradually, till I could manage a quarter of an hour or twenty minutes three times a day, walking as briskly as possible. He had no occasion to cheat me into using my legs, so glad was I to be enabled to do so. Dr. Jephson was something of a philosopher, and greatly depended upon the natural means system for restoring health; and thus he would make the studious and intellectual work for their living, and gain an appetite by physical exertion."

† Read before the Bath and Bristol Branch.

We see how well it exemplifies the most recent ideas and facts of quinine-therapeia. The two new cardinal points about quinine are: (a) that it is an *antiseptic*, as shown by Dr. Binz in its power to prevent and arrest putrescence and fermentation; and (b) that it is an *antipyretic* or *antiphlogistic*, as demonstrated by Cohnheim in his experiments on the influence of quinine in inflammation of the mesentery of the frog. Further, the unquestionable power of quinine in acute rheumatism suggests the inquiry whether all inflammatory joint-affectations may not be connected in a remote causal way with central nervous lesion.

If it be true that scarlet fever usually requires abundant support with a fair auxiliary amount of alcohol, this doctrine has special force when the joints are inflamed. Tissue-repair is gravely interfered with during the fevers of childhood; and when that interference is greatest, those structures suffer most in which growth is most active during health. It has been well said that "in the treatment of children's acute diseases the overwhelmingly important consideration, both which reference to present recovery and the avoidance of disastrous sequelae, is *nutrition*." (*The Practitioner*, May 1870, p. 298.)

2. *Delirium* is the second clinical phenomenon to which I beg attention. It is a valuable aphorism of Heberden's (quoted with approval by Dr. Gairdner in his *Clinical Medicine*, Edinburgh, 1862, p. 193), that there is no disease in which the patient is more apt to be delirious, and with less danger, than in scarlet fever. Speaking broadly, the delirium which may happen in scarlet fever is of two distinct orders: (a) the delirium of adults, occurring early in the history of the disease, and usually an index of high fever; (b) the delirium of children, occurring later in the disease, and often arising out of some sudden impairment or stoppage of renal function. Now, the delirium of the adult fever, always excepting that which is associated with the puerperal state, may be left pretty much alone, so far as concerns the meddlesomeness of starving, purgatives, and antimony. In the case of a married lady who, in the spring of 1864, caught scarlet fever from an only child whom she nursed with most affectionate zeal, active delirium lasted for nearly sixty hours. I supported her with frequent small injections of milk and beef-tea, each injection containing ten drops of laudanum. When the patient suddenly rallied from her delirium, she seemed, *quoad* fever, nearly well. If a similar case were to come under my care now, I should cautiously try the subcutaneous injection of morphia, or, at least, try to get the patient to take hydrate of chloral, dissolved in a large bulk of water.

The delirium of children is often of much more serious import. It may be epileptiform in type, and may merge into coma with very little warning. The narrative of a very apposite case will probably be better than any dry description. On March 9th, 1865, I began attendance on a case of scarlet fever in a young lady, 10 years of age. The case was moderately severe, but everything went on absolutely well until about the twenty-fourth day, when I first noticed that the urine was very red. Remember Dr. Andrew Anderson's axiom, that it is "of more importance to examine the urine than to feel the pulse of a convalescent from scarlet fever." During the week ending Saturday, April 8th, the urine was very red every day, but it was not scanty, and the small amount of albumen in it was sufficiently accounted for by the presence of the blood. There were no symptoms of any other kind announcing danger; and unfortunately in those days one did not use the thermometer as a daily companion as we do now, or doubtless it would have told its tale. The weather was beautifully warm and fine, as it was, indeed, all through the month. Early on Sunday morning, April 9th, I was suddenly called to see the child, and I found her insensible, and strongly convulsed; the breathing stertorous, and the extremities cold. I adopted, without a moment's delay, an old-fashioned treatment, but it was perfectly successful. The head was shaved, and a small blister placed on the scalp; as soon as enough consciousness returned to allow deglutition, half a drachm of compound scammony powder was given every six hours until ample purgation resulted; and a hot bath was administered in the evening. On Monday, April 10th, consciousness had partly returned, and there had been no convulsion since the previous evening. Only milk food was allowed, with abundance of toast and water as a drink. Absolute rest in bed was enjoined for a week, when the urine had become normal in colour and specific gravity, and was quite free from albumen; occasional hot bran poultices were applied to the loins. There was no subsequent interruption to perfect recovery.

This was an instance of tubal nephritis, of a subacute type, but involving so much of the secreting-tissue of the kidney as to hinder the passage of urinary excreta; hence the uræmia and its usual consequences. In the early management of these cases, there is probably no better plan than to give that simple and powerful diuretic, copious draughts of cold water.

3. I propose to say a few concluding words on *cervical abscess*. The glands of the neck become enlarged in the early stage of the disease, apparently owing to septicæmic absorption from the throat; Trousseau called it *scarlatinal bubo*. But now and then this enlargement of external glands assumes a diseased entity of its own; and a broad patch of erysipelatous redness appears. Presently suppuration occurs, matter points here and there, and the patient suffers much from the hard brawny swelling which extends more or less around the whole of the front of the neck, though commonly more severe on one side. This affection is rarely observed after puberty.

Directly abscesses form in an unmistakeable way, I puncture each with a lancet laid flat on the skin, so as to make a valvular opening looking downwards. If incisions be delayed too long, there is a possibility of pus burrowing among the muscles of the neck, and causing gangrene of the connective tissue. Both Trousseau and Graves relate examples of this. After the necessary incisions have been made, a long broad piece of lint may be soaked in some warm Condy's fluid and placed around the neck; over this, again, a strip of oiled silk should be tied, and the dressing may be renewed two or three times a day. The patient should swallow chiefly liquid food, and be kept mainly in the semi-recumbent posture. The chronic enlargement of the glands which is left behind must be dealt with according to the constitutional powers and necessities of the patient.

CLINICAL NOTES.

(Reported from the Practice of Dr. WILKS, at Guy's Hospital.)

VII.—TUMOUR OF BRAIN: CONSIDERABLE IMPROVEMENT BY MEDICINE.

THE following case is reported by Mr. Murphy.

Elizabeth S., aged 19, was admitted January 26th. The patient was a housemaid, and always enjoyed good health until about ten weeks ago, when she began to experience pain in the forehead. Shortly afterwards it was observed that the pupil of the left eye was larger than the right. About a month ago, she also began to feel pain at the bottom of the sternum of the same character as that in the head—both occurring in paroxysms. She had also been becoming thinner, and her eyesight impaired.

On admission, she was seen to be well-formed and well-nourished; her face was flushed, and she had strabismus. The pain in the head compelled her to keep her bed. She described the pain as commencing over the left brow, extending across the forehead around the right side of the head to the back; it came on every half hour, and was of the most lancinating character, and the pain in the sternum frequently occurred with it; she also had occasional pain at the back of the neck. She had slight convergent strabismus; and, on testing the movements of the eyes, she appeared to be unable to move them outwards, as if the external recti were partly paralysed. Both pupils were dilated; the left was somewhat larger than the right. On requesting her to close and screw up her eyes, it was found that she could do no more than simply close them, as if the orbicularis palpebrarum had lost its power. In the same way she had difficulty in contracting the orbicularis oris to show the gums. It was thus inferred that both facial nerves were partially paralysed, as well as both the sixth nerves. Mr. Bader was requested to examine the eyes, and he reported that both optic discs were swollen and ill-defined; the veins of the retina unequally dilated, and several clots in them. The arteries were barely visible. There was no paralysis in any of the limbs. A blister was applied over the left side of the forehead, but without relief. At the end of a week the symptoms were somewhat more marked; the diplopia continued; the pain was very severe; and the face presented the same partial paralysis as before. The bromide of potassium in ten-grain doses three times a day was ordered. On February 14th, the symptoms were much the same; she had convergent strabismus; the pupils were dilated; there was ability merely to close the eyelids, without being able to screw them up; she was also unable to move the lips so as to show the gums.

It was believed that she must have some organic disease of the brain; and Mr. Bader suggested a tumour which obstructed the flow of blood into the cavernous sinus. Dr. Wilks said it was difficult to conceive how any accidental growth should involve at the same time and equally both facial and abducent nerves; and if paralysis of these nerves were the only symptoms presented, it might have been supposed that a very small spot of disease existed in the fourth ventricle which involved the centres of both pairs of nerves—an interesting deduction, seeing that Dr. Lockhart Clarke had shown their adjacent origin. These symptoms suggested a central seat for the disease, whilst others denoted a more superficial cause.

Towards the end of the month (February 25th), she expressed herself as feeling better; the paroxysms of headache had been less severe, and she was able to sit up a short time. The strabismus was the same; but ophthalmoscopic examination showed the optic discs less swollen and more defined, and the retina paler. She then left her bed and gradually improved, the pain being less and her health altogether better; and on March 26th, she left off the bromide of potassium. She walked about the ward looking very well, but the strabismus remained in some degree; and, although the face exhibited no paralysis, yet it showed the want of power before mentioned, when the muscles were tested. She occasionally had returns of the pain in the head. She then left the hospital; but was seen on April 10th, free from pain. The case was thus a most difficult one in which to form an accurate diagnosis.

CASES OF DELIRIUM TREMENS RAPIDLY CURED BY HYDRATE OF CHLORAL.

By J. COREET FLETCHER, M.B., C.M., Tottenham.

MISS E. B., aged 33, showed symptoms of a second attack of delirium tremens on June 12th, the first having occurred last summer. Her rest at night, prior to this date, had been often disturbed by frightful dreams; but on the night of the 12th, she frequently came to her father's bedroom, declaring that the house was on fire, etc. This state continuing on the 13th, I was called to see her on the evening of the 15th. She was not in bed on my arrival, but was running about in her room with her eyes directed to the ceiling, where she declared she saw a variety of visions. The wonderful rapidity with which her hallucinations, and also her attitudes, changed at once suggested Watson's busy delirium. Pulse 90, weak. Though her face was suffused with perspiration, her skin felt cold and clammy. The tongue was furred; the breath was mawkish, with a vinous odour; her hands trembled, the tongue only slightly. A purgative was given, and a warm bath. Beef-tea was ordered to be given regularly; the nursing to be kind, but firm.

Early on the 13th I was called, as her condition was much worse. She had not slept during the night; the visions were wilder than ever; pulse 120. She seemed exhausted and anxious; the lucid intervals were few. She saw ugly animals on my coat and on her bed, and tried to catch them. The bowels had not been opened. Another purgative was given. To secure sleep, she got half-drachm doses of bromide of potassium every hour. At 9 P.M., the excitement and hallucinations had increased; the bromide had no effect. Remembering Dr. Gairdner's suggestion to try hydrate of chloral as a tentative remedy in delirium tremens, and being unwilling to give opium except as a *dernier resort*, I gave half-drachm doses of hydrate of chloral every two hours until sleep was secured. The first dose was given at 10 P.M. The patient became slightly drowsy soon after its administration, but it did not produce sleep. The second dose was given at 12. In ten minutes she fell into a sleep—light and often disturbed at first, but gradually deeper. At last she slept soundly until 8 A.M.

June 16th, 11 A.M. Pulse 76. She felt muscularly tired. The excitement and hallucinations were all gone. She talked quite sensibly. There was nothing to indicate her former condition except an unsettled stare in her eyes, and slight fidgetiness of manner.

June 17th. To-day she was in her right mind, and enjoyed a walk with her sister. Truly, the effects of chloral in this case were almost miraculous.

CASE II.—Mr. N., aged 54, who had frequent attacks of delirium tremens, sent for me June 18th, at 3 A.M. His present attack began thirty-six hours before my arrival. He was in great pain, with cramps in his legs and painful spasms in his abdominal muscles, which caused him frequently to double up as if suffering from slight tetanic emprostotonos. The hands twitched; the tongue was very shaky; the breath was very disagreeable, with a strong alcoholic odour. He had very marked hiccough. There was no mental alienation. A purgative was given, and half-drachm doses of hydrate of chloral. The first dose was given at 4 A.M. In a short time he fell into a sleep, which was not very sound. After the second dose, at 5.30 A.M., he slept soundly until awakened at 11.30 A.M., when he said he felt ready for beef-tea. The muscular twitching was not wholly gone; but the painful spasms and all the worst symptoms of his case had disappeared. After getting some food, he fell soundly asleep again.

On June 19th, pulse was 84; he was much better. To secure rest, he had half a drachm of hydrate of chloral the previous night, after which his sleep was unbroken. He had no headache nor other bad symptom attributable to chloral. He took his food well.

On June 20th, he was so well that further attendance on him was almost unnecessary.

CHLORAL IN CASES OF INSANITY.

By G. B. WADSWORTH, Esq.,
Assistant Medical Officer, Suffolk County Asylum.

HAVING read many inquiries and suggestions as to the best mode of administering the hydrate of chloral, I beg to offer the following cases taken from the case-book of the Suffolk County Asylum, within the last three months, and shall be happy to see them inserted, if of sufficient value.

CASE I.—H. M., male, aged 51, was admitted May 21st, for the fourth time, in a very excitable state from recurrent mania. With ordinary diet, and attention to his general health, he improved sufficiently to go to work. On the 18th of June, I was called to him, as he had suddenly, when dressing in the morning, tried to jump through the window. I found him in every way suffering from acute mania. He would take no medicine; but, when asked to take a glass of porter, said that he would. Sixty grains of chloral were administered in porter; and fifty minutes afterwards he was in a calm sleep, which continued nine hours. At seven o'clock, he awoke and wanted something to eat; he took meat, bread, and porter, with forty grains of chloral. This was followed by a good night; he slept ten hours, awoke hungry, and took food plentifully. His bowels acted well. He has since continued quiet, and is now approaching convalescence, and again commencing work.

CASE II.—M. A. B., female, aged 19, was admitted June 9th. She was cruelly bound hands and feet, and was immediately released, and placed in the padded room. She was suffering from acute mania. She refused food with obstinacy, but after some little time called out for water. She was induced to drink a glass of porter which had sixty grains of chloral dissolved in it. In forty minutes she was in a calm sleep, which lasted ten hours. She awoke hungry, and had beef-tea, and another glass of porter with forty grains of chloral. She has continued taking the chloral in porter three times a day, in doses gradually decreasing to fifteen grains, with marked improvement, and is now recovering.

CASE III.—R. B., female, aged 59, was admitted June 22nd. She had all the symptoms of melancholia canina. On my entering her room, she was crouched in one corner, but came towards me on her hands and feet, barking savagely. Seeing the nurse with a glass of medicine in her hand, she rushed at her. As I could make no examination, I could only judge the pulse to be over 150 per minute. On the partial subsidence of violence, she was induced to take a glass of porter with sixty grains of chloral dissolved in it. In fifty minutes, she was in a calm sleep, which lasted eight hours; pulse 84, respirations 18 per minute. She was then willing to take support in sufficient quantity, and had porter, with forty grains of chloral dissolved in it. This produced a good night's sleep, which has continued uninterruptedly each night, the chloral being repeated in decreasing doses to fifteen grains three times a day. She is now gradually improving, the unnatural noise not having been heard since the third day from her admission, and she now converses rationally.

I trust that these short notices may be of some service in shewing a means of preventing the excitement produced by the endeavour to administer medicines, when refused by the patient, which must, in cases of acute mania, materially deteriorate from the desired effect.

OBSTETRIC MEMORANDA.

SPONTANEOUS EVOLUTION.

By W. M. WHITE, M.D., Lavenham.

THE following case of spontaneous evolution, occurring in my practice, may be interesting.

J. M., aged 22, single, in labour with her second child, sent for me on June 16th at 10 A.M. The membranes ruptured as I entered the house. A pain immediately followed my arrival up stairs, during which I made out a shoulder-presentation. Another pain, before I could leave the bed, brought the right elbow and hand into reach, when I determined to turn, and dropped out forty drops of laudanum to still the violent pains. Whilst doing this, a great pain produced the hand. I then gave the laudanum; and, while I was rolling up my sleeve to turn, the woman called out that the head was born, which I knew to be unlikely; and so it proved, for the body and one arm lay in the bed, and the head and left arm in the vagina. I drew down the funis, passed the child's hand over the face, and extracted immediately.