Mönnighoff and Piesbergen pointed out that the depth of sleep increased for a second time after four hours and a half, and continued to grow more profound until the end of five or five and a half hours. The brain is at this time comparatively more bloodless. Many kinds of morbid sleep, due to toxic causes, terminate at this hour. It is during this unusually deep sleep that toxic awaking occurs. The man who has drunk or smoked too much is then awakened to repent his folly. The more pronounced anæmia that then occurs appears to cause awaking. An anæmic brain is the source of vacillation and fear. The forebodings that precede an apoplectic attack accrue from this. The neurasthenic state is equally the parent of dread, and, when these conditions are combined, depression and misery are explicable. In enervated states volition is enfeebled, and emotion is correspondingly exaggerated by day; in the early morning, with lessened nervous energy and a diminished cerebral blood-supply, these conditions must be accentuated. For, as Bain writes: "States of pleasure are concomitant with an increase, and states of pain with an abatement, of some or all of the vital energies." It has been truly said that it is in the early morning that the soul holds its inquest in the heart of man. Mosso has pointed out that in the act of awaking the brain undergoes a diminution in volume, and contains less blood than during sleep; this would appear to be coincident with the sudden dilatation of the pupils that then takes place. It is probable that this sudden increase of anæmia may, to some extent, account for the distressing sensations experienced on awaking.

Many neurasthenics grow nervous towards night, and to such an extent that they may be afraid to go to bed after reading or listening to a terrifying tale. The exhaustion inseparable from daily activity diminishes the power of their inhibitory centres. Curtailment of sleep sensibly increases this lack of control, and this is equally noticeable after morbid sleep. Awaking in this condition these centres are unable to resume their functions, and incapacity to think leads to introspection. One patient under observation affirms that occasionally he is able to direct his thoughts out of their ordinary gloomy groove, with the result that depression and dread soon disappear. The absence of sensory stimuli probably increases the distress. The darkness of the night (such awakenings are most complained of in winter) exerts a material influence. It reduces many a neurasthenic to the mental level of a child or a savage. In darkness they are haunted by fears unknown to their daily lives. Travellers in northern climes have insisted upon the depressing effects of the absence of light upon men and the lower animals. My friend Mr. Crockett of Wolverhampton, formerly chief surgeon to the great works at Cyfarthfa, assures me that miners injured in darkness suffer more from shock than those injured in the light. During the light and bustle of the day innumerable impressions are constantly streaming brainwards, and they serve to correct thought. These are almost in abeyance at night. Thought uninhibited from within and uncorrected from without is apt to run riot; moreover, it is liable to run apace, and so to become intensified from the want of distracting agencies around. It has been noted that in the insane thoughts grow far more extravagant in darkness; indeed, a form of nocturnal insanity is well recognised, characterised by restlessness and excitement, and by an extravagant mental state, symptoms which completely disappear during the day. Some of the patients under discussion have curious hallucinations whenever they shut their eyes. One that seems to be disagreeable is a loss of the sense of locality; they think their bed is placed in a different position &c. The poet who has well described most things in Nature has not left these awakenings untouched. The following lines occur in Melpomene:—

"These pannicks whence? And why my bosom torne
With sudden terrors never felt before?
Darkness invraps me round,
While from the vast profound
Emerging spectres, dreadful shapes assume,
And gleaming on my sight, add horror to the gloom.
* * * * *

"The fervent prayer was heard: with hideous sound
Her ebon gates of darkness open flew;
A dawning twilight cheers the dread profound,
The train of terror vanishes from view.
More mild enchantments rise;
New scenes salute my eyes."

It only remains to add that men and women suffer from such awakenings in almost equal proportion, and that they

occur chiefly in persons over forty years of age. Those of the melancholic temperament—designated by Laycock a degenerate temperament—suffer most acutely. In some instances these patients gravitate from neurasthenia into hypochondriasis, and into insanity, hence the necessity of early recognising the import of the symptom. With proper management such a sequence should be extremely rare.

Treatment.—It is beyond the scope of this brief note to consider the treatment of such cases at length, entailing, as that would do, the hygiene and therapeutics of many diverse conditions. It will suffice to indicate that it must be of a twofold description. First, that directed to the condition of the patient; and, secondly, that adapted to alleviate the morning misery. The former, which is the essential element, involves the consideration of measures calculated to accomplish restoration of nervous energy, and the excretion of waste products, in which diet and regimen exceed medication in value. The latter, being palliative, is of secondary importance. The indication is to flush the brain with blood as speedily and thoroughly as possible. This can be done by two methods: by way of the nervous and of the vascular systems. Mosso demonstrated that a ray of light falling upon the eyelid of a sleeping man caused an increased blood-supply to the brain, by stimulating activity in the nervous centres. This accords with the physiological law which decrees that the blood-supply of an organ is in ratio to its activity, and it explains to a certain extent the invigorating effects of sunshine. A bright light shortens and decreases the acuteness of the attack. Equally, warm and stimulating drinks, by increasing the frequency and force of the heart's action, afford much relief. The addition of a grain or two of caffeine, and, in certain carefully selected cases, of a spoonful of brandy, is helpful. In some, full doses of valerian, ammonia, and chloric ether act quickly and well. In all urgent cases, in which the recurrences are frequent and severe, I advise a light to be kept burning all night and an attendant to sleep in the same room.

Manchester-square, W.

A Mirror OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SOUTH-WESTERN FEVER HOSPITAL.

A CASE OF PYÆMIA FOLLOWING SCARLET FEVER;
SUPPURATION IN PLEURA AND ELBOW-
JOINT; RECOVERY.

(Under the care of Dr. CAIGER.)

THE symptoms presented by the patient whose case is given below, the ulceration of the fauces, offensive nasal discharge, deeply stained rash, and extensive suppuration in the cervical region, show the severity of the attack of scarlet fever, and make it no matter of surprise that pyæmia supervened as a complication of the disease. Pyæmia is rare as a complication of scarlet fever, and when met with it is in this malignant type of the disease. Inflammation of the pleura is prone to become purulent, but the commoner joint complications of scarlet fever do not evince any proof of infective character or tendency to suppurate. Hilton¹ considered a disease of bone or joint remaining after scarlet fever as not uncommon, and wrote, "It will almost always turn out on inquiry that the patient with diseased bones or joints, as a sequel of scarlet fever or measles, had had a blow upon the joint, or had used excessive exercise so as to tire himself and to lower the vital endowments of the bone or articulation by over-fatigue." Recovery from this complication of pyæmia is very unusual, and, should recovery ensue, any joint which may have suppurated is as a rule more or less firmly ankylosed and its usefulness im-

¹ THE LANCET, vol. ii. 1861.

paired as the result of the destructive changes which have taken place in it. The early recognition of the gravity of the joint complication, and its prompt treatment by some such plan as that adopted by Dr. Caiger in his case, form most important elements in the prevention of disorganisation of the joint and the restoration of its full usefulness. By means of early and sufficient incisions, the use of antiseptics, and rest of the limb, with appropriate general treatment and good nursing, we are able to record successes in the treatment of suppurating joints, even when of this infective nature, which would not have been considered possible a few years ago. Our readers are acquainted with the destructive arthritis which only too frequently supervenes in pyæmia, whether acute or chronic, when the joint has not been incised early, or the treatment for some reason has failed to arrest the local condition. The risk to limb is not only much increased, but from the prolonged suppuration the patient's chances of recovery are greatly diminished. The danger is not from too early incision of a joint, when done with due precaution; it is from leaving it distended with purulent fluid until the inflammation has extended to the ligaments and other structures which enter into its formation.

F. H.—, aged eight, was admitted on Dec. 26th, 1890, with severe scarlatina. The temperature instead of falling to the normal at the end of the first week remained on Dec. 31st at 101.8°. The rash was almost hæmorrhagic, the fauces much ulcerated, and there was offensive rhinorrhœa. The glands at the angle of the jaw and under the sterno-mastoid became much swollen, hard, and tender, with extensive infiltration of brawny character in the cellular tissue around. Pulse 144. Patient very restless.

Jan. 4th, 1891.—The swelling was much increased, giving rise to the appearance known as "bull neck," the temperature remaining between 102° and 103°. Chloroform was administered, and free incisions were made into both sides of the neck. The superficial portion of the swelling was hard and glistening on section, and yielded a thin ichorous discharge; pus was found deep down in the neck, and drainage-tubes were inserted.

8th.—The swelling had increased. Temperature 102.2°. Under chloroform more incisions were made on the left side. The rash remained dark and staining.

9th.—Some relief had been obtained. Temperature 100° to 101.4°.

18th.—Has remained much the same since the last note. Temperature varying from 100° to 103.4°. To-day there is more swelling on the left side. Temperature 102°. Under chloroform a fresh collection of pus was found deep down in the left side of the neck; this was opened and a tube inserted. Strength fairly maintained with careful nursing. Taking champagne and essence of beef well.

20th.—Temperature yesterday 101°; to-day 103.2°. Pain and friction heard in the left flank. The urine contains one-tenth albumen.

25th.—Temperature 105°. Vomited. Well-marked pleuropneumonia of left lower lobe. Pulse 160; albumen one-sixth. Neck discharging freely; swelling rather less.

31st.—The condition during the last few days has been most critical. Temperature, which has remained between 103° and 104°, fell in the night to 100.4° (sixth day of the pneumonia). Tenderness was complained of in the left elbow yesterday; to-day the joint is hot, tense, tender, and fluctuating. Chloroform administered, and a drainage-tube put through the joint, which, after the pus had been evacuated, was irrigated with 1 in 20 carbolic acid solution for some time. Strips of lint soaked in carbolic lotion were tightly applied round the joint, outside of which were placed several layers of sublimate wool impregnated with iodoform. The whole was enveloped in a firm elastic bandage, which kept up considerable pressure on the joint. The arm was lightly bandaged on to a paste-board splint, and the dressing changed every four hours.

Feb. 1st.—No pain in the elbow. Only a heavy trace of albumen. Temperature 98.8°.

3rd.—Temperature has risen to 100°. Dulness and loss of vocal fremitus over lower two-thirds of left lung posteriorly. Heart displaced outwards. Respiration over 50. Paracentesis thoracis; three pints of sero-pus removed; relief.

6th.—Tube removed from elbow-joint. The same treatment by elastic pressure, exerted on the joint, enveloped in the antiseptic absorbent dressing, now changed night and morning, as the discharge is but slight.

9th.—Temperature has been variable. Breathing again becoming embarrassed. Right pleura again aspirated. One pint of pus removed. There is now practically no discharge from the elbow-joint, which, except for two small skin wounds, is healed. The same treatment continued.

16th.—Temperature has varied between 98° and 102°. Right pleura again filling. Under chloroform the empyema was opened, an inch and a half of the tenth rib resected, and a double drain inserted. About two pints of pus were evacuated, the cavity afterwards being syringed out with 1 in 60 carbolic acid lotion.

17th.—Has stood the operation well. Temperature 98°. Right elbow now quite sound. Splint discontinued, though elastic pressure maintained.

20th.—The empyema not draining properly. Tubes were temporarily removed, and about a pound of solid coagulated lymph evacuated by coughing. Evening temperature normal.

Since this date recovery has been rapid. The tube was finally removed from the chest wall on March 27th. On the 30th he was allowed to get up. The lung has apparently quite recovered, and the elbow-joint is as sound as its fellow, extension and flexion being in all respects complete. No adhesions seem to have formed within the joint, slight movements being allowed since Feb. 17th, when the splint was left off. This was eighteen days from the time of laying open the joint.

In connexion with this case it is interesting to refer to another, in which, though the child subsequently died, a pyæmic joint was treated by the above method with equal success.

L. D.—, aged one and a half, admitted on July 2nd, 1890. Still desquamating after an attack of scarlatina five weeks previously. The right elbow-joint on admission was tense, fluctuating, and acutely tender. The joint was at once opened, the pus evacuated, and the cavity thoroughly irrigated with 1 in 20 carbolic acid, and a drainage-tube laid through the joint. On the following day the temperature was normal. On July 7th the tube was removed and elastic pressure maintained by means of a bandage firmly applied over a strip dressing of carbolic acid surrounded with alembroth wool sprinkled with iodoform. On the 15th, with the exception of two small points in the skin, the wounds were healed. In this child seven other collections of pus, mainly in the intermuscular planes, were treated in the same way by incision, evacuation, antiseptic irrigation, and elastic pressure. In no case did the pus re-collect.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF FÆCAL FISTULA; ABDOMINAL SECTION;
OPENING IN BOWEL SUTURED; RECOVERY.

(Under the care of Dr. ARNISON.)

OF the various forms of hernia met with in the groin, that known as "lateral enterocoele," "Littre's" or "Richter's hernia" is the most fatal, on account of the frequent absence of symptoms on which reliance is placed in the diagnosis of strangulated intestine. Of the cases, fifty-three in number, collected by Mr. Treves, about one-third presented the symptoms of ordinary strangulated hernia. Three of those remaining had persistent diarrhœa during the progress of the case; in others flatus and fæces were passed for from one to three days after the commencement of the strangulation. The vomiting was generally less frequent and severe than usual, whilst in only six did it become feculent. In very few was there distension of the abdomen, and in several the bowels acted after aperients. The operation of closing the opening in the bowel (usually the ileum in these cases) was less formidable than when undertaken for fæcal fistula, usually resulting from gangrene of strangulated intestine. From the nature of the protrusion it was not necessary to resect the gut before the sutures were inserted; the operation therefore took a shorter time to perform, and the subsequent risk of leakage was much lessened. For the notes of the case we are indebted to Dr. Thomas Beattie, acting house surgeon.

S. B.—, female, aged fifty, a charwoman, was admitted into the above institution on Sept. 15th, 1890, complaining of pain in the lower part of her abdomen and also of two discharging sinuses in the right groin. Four years and a half ago, when lifting a heavy weight, the patient was