Thénard found in 100 parts—albumen, 70; gelatine, 17; phosphate of lime, 5; water, 3; and loss, 5 parts.

Frequency of occurrence.—The disease is generally characterized by those who have specially devoted their time and attention to the study and treatment of cutaneous affections, and by those who have recorded their experience of it in general practice, as being very rarely met with in England. Thus we find Erasmus Wilson, in his treatise on Ringworm, writing, "In the course of my long experience with the St. Pancras Infirmary, I have not seen more than six cases of favus;" and Willis, in his account of the disease, states that "several months will often elapse before a single case of the trichosis (porrigo) lupinosa is observed among the thousands of out- and in-patients who present themselves at the different hospitals of the metropolis in the course of every week." Jenner, Hutchinson, and others all agree in describing it as of very rare occurrence.

From all these statements, it must be inferred that the opportunities of studying this skin affection in the English metropolitan hospitals are very few, and at long intervals of time.

If now we turn our attention to the accounts from Ireland, we find Dr. Corrigan writing in 1845, that in his experience of it in that country "it is a very rare disease." Dr. Neligan also gives it as his opinion "that this is a rather rare affection, —appearing, however, from the observations of those who have written specially on it, to be more common on the continent and in Ireland than in England." He further remarks—"When I first wrote on this disease in 1845, my experience was drawn from a limited number of cases; since then, however, I have had under my care a comparatively large number of examples—twenty-three." This was written by Dr. Neligan in 1852, so that in the space of four years there came under his charge twenty-three cases of favus.

Having learned so much from the individual experience of well-known authorities in the largest fields of observation in England and Ireland, we come, in the course of our investigations on this point, to ascertain the rate of frequency in Scotland. The opportunities of studying the complaint in Edinburgh must be very different from those enjoyed by observers at the English metropolitan hospitals, for Dr. Bennett, in a commentary on a case of favus quoted in his "Principles and Practice of Medicine," says, "The disease is so common in Edinburgh, that the wards are seldom free from one or more examples of it in various stages." The truth of this statement will be at once seen by a glance at the subjoined table, showing the number of annual admissions for favus into the Royal Infirmary of Edinburgh over a period of ten years:—

Cases of Favus admitted into the Edinburgh Royal Infirmary.

From 1st Oct. 1849, to 1st Oct. 1850, admitted 14			
"	1850	"	1851
"	1851	"	1852
"	1852	"	1853
"	1853	"	1854
"	1854	"	1855
"	1855	"	1856
"	1856	"	1857
"	1857	"	1858
"	1858	"	1859

Total, 120 cases.

The rate of frequency in other parts of Scotland will be gathered from the following tables, compiled from the annual reports of the Glasgow and Aberdeen Infirmarys, and showing the number of admissions into these institutions for a period of nine years, and the manner in which they were distributed over that term.

Glasgow Royal Infirmary.

Year.	Cases.
1851 admitted	0
1852 "	0
1853 "	0
1854 "	0
1855 "	2
1856 "	1
1857 "	8
1858 "	3
1859 "	1

Total ... 15

Aberdeen Royal Infirmary.

Year.	Cases.
1851 admitted	4
1852 "	2
1853 "	2
1854 "	1
1855 "	2
1856 "	4
1857 "	0
1858 "	5
1859 "	4

Total ... 24

From the first table it will be seen that there are very frequent opportunities of studying the disease in the Edinburgh

Royal Infirmary; and, from the second, that the number of examples of the affection admitted into that hospital has much exceeded the number admitted during an equal period of time into the Glasgow Royal Infirmary. This is a very strange fact, seeing that the population of Glasgow more than doubles that of Edinburgh, and the number of admissions of all kinds during each year into the two hospitals is very nearly alike. It also appears that, although the population of Glasgow exceeds that of Aberdeen by at least 300,000, and although the annual admissions for all kinds of diseases into the Glasgow Royal Infirmary double those into the Aberdeen Hospital, still the number of cases of favus treated in the Aberdeen Royal Infirmary, over a period of nine years, exceeds that treated in the Glasgow Royal Infirmary during a like period by nine. The fact of the disease having been for many years so much rarer in Glasgow than in Edinburgh, and even less frequent than in Aberdeen, notwithstanding that its population more than doubles that of Edinburgh, and is nearly five times greater than that of Aberdeen, would lead one to suppose that there must be some peculiar local influences which powerfully predispose a people to the complaint under consideration. Whether the great difference in the number of examples admitted into hospital in the towns already named be owing to peculiarity of climate, to greater excellence or defect of sanitary arrangements, to any difference in the food of the people, or to any diversity in their habits, I cannot say; but statistics establish the fact that, in the most populous town in Scotland, favus has for many years been of much less frequent occurrence than in other towns containing only one-half or one-fourth part of the number of inhabitants. For the last nine years there have been, on an average, nearly three admissions every year for favus into the Aberdeen Hospital; and this is a proportion which, although it may not entitle us to call the disease very common, at least justifies us in not characterizing it as of very rare occurrence in this locality. As the estimated population of Aberdeen is only a little above 80,000, it necessarily follows that the number of skin diseases of all kinds admitted into hospital is but small; but one circumstance which struck me much on looking over the reports since 1850 was, that the number of cases of favus exceeded that of herpes, lepra, ecthyma, pityriasis, and some other skin affections which are generally regarded as very common.

The disease must be of very frequent occurrence in France, for Rayer, who describes the disease as commencing in a pustule, says: "Tinea favosa is the most common of all pustulous inflammations of the scalp."

(To be concluded.)

A Mirror OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

ST. THOMAS'S HOSPITAL.

GRAZING OF THE HEEL OF A SAILOR, FOLLOWED BY TETANUS; RECOVERY.

(Under the care of Mr. MACKMURDO.)

SINCE the publication of our last series of cases of tetanus (August 18th, p. 161), some others have occurred, which present features of sufficient interest to entitle them to be recorded. They support an observation previously made, that minor surgical injuries are the chief source of the traumatic form of the disease. Of the five cases now reported, grazing of the heel in one, and injury to the hand in three others, gave rise to the tetanus; whilst in the fifth it followed upon amputation. In the two fatal hand cases, death took place within twenty-four and thirty-six hours respectively; and in the amputation case the patient succumbed on the third day. The two cases of recovery show the influence of energetic treatment from

the beginning, perseveringly carried out. To effect anything like satisfactory results in this dire malady, our therapeutic doses must be given on a larger scale than that ordinarily adopted. It is ridiculous to suppose that *small* doses of opium or its salts can exert any decided influence upon the sometimes fearful attacks of tetanic spasm. We remember some years back seeing a female suffering most acute pains from an attack of general peritonitis associated with some other disease, and who had been under treatment for some hours without the slightest relief. A practitioner was called in, who at once gave a large tablespoonful of laudanum, with immediate and effectual relief. The observation he made at the time is worthy of remembrance—namely, that “pain eats up the remedy.” Surely no surgeon need be afraid of symptoms of poisoning by free doses of narcotics when his patient is almost certain to die of the disease he is endeavouring in vain to arrest. On a former occasion we referred to the case of a boy, under Mr. Lloyd’s care, at St. Bartholomew’s Hospital, who had several grains of woorara injected hypodermically. This was well borne, without any of the poisonous effects of the drug being manifested; but as this treatment was stopped by the patient’s mother, from the pain of the simple operation, death ensued.

Of the different indications in the treatment of tetanus, besides the removal of any source of irritation, and the support of the general strength, but especially of the heart, two are prominently dwelt upon by writers—namely, to lessen the susceptibility of the nervous centres to any irritating influence which may exist, and to diminish the irritation by means calculated to depress nervous excitement. To accomplish the first, Dr. Wood, of Philadelphia, thinks the weight of testimony is greatly in favour of opium, notwithstanding the contrary judgment of some distinguished authors. It has probably been employed, he asserts, as one of the remedies in the great majority of cases. It has failed like other remedial agents, but in many cases all prove ineffective. The liquid forms, from their more ready absorption, are to be preferred to the solid. The second indication is fulfilled by measures that have a sedative influence on the nervous system, and by those which act revulsively. Into these we do not propose to enter, but we may state that the tobacco enema (half a drachm to the half-pint of boiling water) is highly praised by Dr. Wood. It is to be repeated in an hour, and then every two or three hours, till its relaxing effects are produced. The nervous system is easily impressed by the influence of tobacco, as contrasted with opium; and we think that by-and-by, when the question has been thoroughly tested, it will be found that tobacco or its alkaloid, nicotine, is of greater value than many other remedies in tetanus. The revulsive plan consists in blisters or caustic applications to the whole length of the spine; or ice may be advantageously employed. The latter remedy is asserted to have been the means of cure in sixteen out of seventeen cases under the care of Dr. Carpenter, of Suffolk County, New York.

In the following case, chloroform was at first given without relief, and mercurial ointment was rubbed into the spine; afterwards, opiates were freely administered, and plenty of stimulants. The sufferings of the patient were dreadful, but fortunately the disease became chronic. The spasms were less violent on the fourteenth day; they subsequently ceased, and the patient left the hospital, quite well, a month after his admission. (For the notes of this and the next case we are indebted to Mr. W. Allingham, surgical registrar to the hospital.)

B. D.—, aged twenty-eight, a tall, powerful man, a seaman, was admitted into St. Thomas’s Hospital, under the care of Mr. Mackmurdo, on the 23rd of August last. He states that on the 15th July, while at sea, the skin was grazed off his heel by the slipping of a heavy spar which he was assisting to move. Although he did not consider the accident by any means serious, he ceased working, and the ship arriving in port three days afterwards, he landed and went to the Sailors’ Home, and on the evening of the same day he found himself unable to open his mouth to the usual extent. This continued the same for several days, and, becoming alarmed, he came to the hospital.

On his admission, he was found unable to open his jaws more than sufficient to admit the end of the finger; the masseter and sterno-mastoid muscles felt contracted; and he complained of stiffness and crampy sensations in the muscles of the face when he spoke. The risus sardonius was but slightly marked. He could swallow without difficulty, and had no dorsal or epigastric pain. Over the tendo-Achillis was an irritable-looking sore,

which was very painful when touched. The skin was cool; the pulse soft, and 100 in the minute. He was ordered a calomel-and-colocynth purge, to be followed by a dose of castor oil; and as that did not act freely, an injection of turpentine and castor oil was administered, and then his bowels were copiously moved. In the evening, he had a draught containing forty minims of Battley’s sedative solution. His diet was soup, arrowroot, and four ounces of wine.

Aug. 24th.—He had a very tolerable night, and seems much the same as yesterday. The wound is poulticed.

25th.—He slept fairly, but this morning has had several spasms affecting the muscles of the back and neck. They were not very severe, but sufficiently so to make him cry out. The risus sardonius is much more marked; the trismus is unaltered; the pulse is 110, and soft; skin sweating; bowels open. Ordered, ten minims of chloroform every two hours, and to have mercurial ointment, with opium, rubbed into the back of his neck.

26th.—Better; good night, and less spasms; bowels acted upon by castor oil; still sweating profusely; he takes his fluid nourishment very well.

27th.—He has had very severe tetanic spasms, with opisthotonos, about every two hours; the muscles of respiration are somewhat affected; the trismus remains the same; pulse 120, and very easily compressed; skin sweating; risus much marked; his mouth is slightly touched by the mercury. He only had twelve doses of the chloroform; he fancied that he was worse after it, and declined taking it. This morning the wound was scored transversely and vertically to the depth of the integument. He was ordered ten minims of tincture of opium every hour, and to go on with the rubbing-in. To have strong beef-tea, arrowroot, six eggs, and eight ounces of wine.

28th.—Had rather a better night; spasms less frequent, but suffers constant pain in the back, the muscles being tonically contracted; he opens his mouth a little more, and can swallow comfortably; pulse 86, and soft; skin sweating; the mouth is very sore, so the mercury is to be omitted; the wound looks healthy.

29th.—Had a very restless night; spasms, with opisthotonos, frequent, and he screamed when attacked; the expression of his countenance is the same; he is very desponding.

30th.—Spasms frequent, five or six in the hour; muscles of respiration affected, but not to any great extent; he can swallow very well, and has no difficulty in passing urine; continues sweating.

31st.—Had a better night, but has had one or two very severe tetanic spasms this morning. A blister was applied all down the spine. In the evening, he was ordered half a drachm of the solution of muriate of morphia, and fifteen minims of chloric ether, in water, to be repeated if required.

Sept. 2nd.—Was worse last night than he has been before; the spasms were very severe; opisthotonos and pleurosthotonos well marked; he shrieked and was violently maniacal; the morphia was frequently repeated. This morning he seems much better; is not delirious, and has been free from spasm for two hours; he complains of pains all over him, but particularly in the back and epigastrium; the muscles are very rigid; the pulse is feeble, 76 in the minute; the bowels responded to a calomel-and-rhubarb powder, followed by castor oil; his mouth is still sore; he takes his nourishment well.

3rd.—Rather improved. He has slight spasms when he attempts to move or is touched; they are confined almost entirely to the abdominal muscles, which are very tense and rigid. He can open his mouth more; takes his nourishment well. Two ounces of brandy were ordered in addition to his wine; and a mixture, composed of tincture of sesquichloride of iron, half a drachm; tincture of opium, ten minims; in water: every three hours. To continue the morphia draught at bed time.

5th.—Spasms very slight; has constant pain between the shoulders; the mouth can be opened much wider; he is in good spirits, and takes his nourishment well; the back is still very sore from the blister; the wound over the heel is cicatrizing rapidly, and looks well.

11th.—Continues to improve; muscles of mastication still slightly affected, and he has a burning pain between the shoulders; he sleeps, and takes fluids well. To have the mixture only every six hours.

17th.—No spasms now; he sat up to-day; his limbs exceedingly stiff, and the muscles are tense; he can open his mouth wide, and eats solid food. From this time he continued steadily to improve, and left the hospital on the 24th of September, being then quite well.

RUPTURED POPLITEAL ANEURISM, WITH GANGRENE
OF THE LEG; AMPUTATION; TETANUS;
FATAL RESULT.

(Under the care of Mr. SOUTH and Mr. SYDNEY JONES.)

E. D—, aged thirty-seven, a married woman, without children, was admitted into Dorcas ward, under the care of Mr. South. The patient, who seemed very much out of health, said that she had been ill fourteen days, having pain and considerable swelling of the right foot and leg. On examination, it was found that she had a ruptured popliteal aneurism, and that gangrene of the limb was commencing. The leg was amputated above the knee, by Mr. Sydney Jones, on the 21st of July. She went on as well as could be wished, sleeping well, and taking her food capitally, until the morning of the 1st of August, when she found that she had some stiffness and pain in the back of the neck, and, towards the middle of the day, she was unable to open her mouth more than half an inch. During the night she had been very hot and sweating, and had thrown off the clothes to get cool.

Aug. 2nd.—She is much the same; sleeps pretty well; trismus not increased. She has no pain, and can swallow easily. The risus sardonicus is marked; face flushed; skin sweating; pulse 100, and feeble; bowels confined. The leg looks well; the discharge is rather scanty. Ordered, a brisk purge of calomel and colocynth. To continue her beef-tea, brandy, and wine.

3rd.—Tetanic spasms of great frequency came on this morning; opisthotonos severe; the trismus remains the same; all the muscles are very rigid and tense; pulse weak. She is exceedingly anxious and desponding, and the muscles of respiration are markedly affected during the spasms. A blister was applied to the spine, and half-drachm doses of Battley's solution were ordered.

4th.—She died this morning at ten A.M., after passing a fearful night, the spasms being frequent and severe, attended with much difficulty of respiration.

The post-mortem examination did not reveal any morbid appearances of the nervous system.

ST. GEORGE'S HOSPITAL.

EXTENSIVE WOUND OF THE HAND FROM A CHAFF-CUTTING
MACHINE, FOLLOWED BY FATAL TETANUS.

(Under the care of Mr. JOHNSON.)

THE duration of the attack in the present instance was scarcely twenty-four hours, when a fatal result ensued; and in the next case thirty-six hours was the period at which the disease proved fatal. In neither case was there anything worthy of special notice observed at the autopsy.

Although we do not record any examples of the idiopathic form of tetanus on the present occasion, since our last report three genuine examples have been published in our columns: two by Dr. Farrage, of Hampstead, (*ante*, p. 262;) and one by Dr. Rogers, of Dean-street, (*ante*, p. 407.)

For the notes of the following case we are indebted to Mr. George Rouse, surgical registrar to the hospital.

William K—, aged thirty-two, admitted Aug. 25th, 1860, under the care of Mr. Johnson, with an extensive wound of the left hand, caused by a chaff-cutting machine. The extremity of the forefinger was removed before his admission. The wound commenced between the first and second metacarpal bones, and extended towards the middle of the hand. The second and third metacarpal bones were cut through close to the carpal ends, and the first and second fingers were attached to the rest of the hand by very little more than the integuments.

Aug. 27th.—The hand was going on well, but he complained of stiffness of the neck and pain in the back; he had also violent cramps in the leg.

31st.—The forefinger looked very dark, and there was a small, dark, gangrenous spot near its extremity. Next day, this was followed by sloughing of the wound.

Sept. 2nd.—Symptoms of tetanus set in, with spasm of the muscles of the neck and back. The muscles of the abdomen subsequently became hard and rigid, and the jaw was fixed. Spasms now came on every half-hour. He was given brandy and turpentine injections. At night there was opisthotonos.

Half an ounce of brandy was given every ten minutes. He died on the 3rd, after an attempt to swallow, of spasm of the glottis.

Examination, twenty-four hours after death.—The wound in the hand was partly in a sloughy condition, and partly granulating naturally; the radial nerve was traced into it. It had divided above the wound into three branches; that which went to the thumb was uninjured, and seemed quite healthy; the other two had been cut across, but were natural down to the point of section. The median nerve was healthy. The brain and spinal cord were found healthy. There were firm old adhesions of the pleura. The heart was filled with decolorized clots.

LACERATED WOUND OF THE BACK OF THE HAND,
FOLLOWED BY FATAL TETANUS.

(Under the care of Mr. CUTLER.)

The notes of this case were taken by Mr. T. Peck.

James P—, aged sixty, labourer, admitted October 8th, into Oxford ward. On the 2nd, his hand was caught between the wheel of one cart and the side of another, and was very much torn; it bled but little. He went to a medical man, who put in some sutures; but as it continued to get worse he came to the hospital, and was attended as an out-patient on the 4th. The sutures were then removed, and he was ordered a stimulating ointment and poultices. On the day of admission he was seized with pain extending the whole length of the back to the occiput, and also in the jaws, with inability to open them.

After admission the patient lay on his right side, with his head and shoulders thrown forcibly back, so as to form a complete arch of his back; he could not open his jaws above half an inch. There was a sloughy wound on the back of the right hand; the extensor tendon of the second finger was exposed. Bowels open; pulse 84, weak, small, and easily compressible. Respiration did not seem much affected. Ordered, three grains of calomel every four hours; a grain of acetate of morphia also every four hours; and beef-tea.

Oct. 9th.—Did not sleep. The spasms are now frequent; they do not appear to affect the respiration very much, but during them the face becomes quite purple from congestion. Opisthotonos more strongly marked than yesterday; jaws not quite locked, but nearly so. If he attempts to swallow anything the spasms become very severe, and produce great distress of breathing; pulse 104, very weak. He was injected, about 11 A.M., with three-quarters of a grain of morphia in the arm.—Three P.M.: The spasms are more intense; great distress of breathing, the breath being drawn in short quick gasps. He was injected again.—Seven P.M.: After the second injection he seemed easier, and the paroxysms less intense; he gradually sank, however, and died from exhaustion about half-past four the following morning.

Post-mortem examination forty-six hours afterwards.—The body was in good condition; no rigor mortis. There was a sloughy wound on the back of the right hand at its ulnar side; the branches of the nerve leading to this wound were healthy in appearance. The spinal cord was healthy throughout its whole length; the brain also was normal.—Thorax: There were old adhesions in the right pleura; lungs healthy; heart healthy, except slight atheroma on the aortic and mitral valves. Abdomen: Liver and spleen healthy; kidneys healthy, except some cicatrices of old cysts; the mesenteric glands presented a deposit of chalky matter; no disease in intestines.

MIDDLESEX HOSPITAL.

SEVERE INJURIES TO THE RIGHT HAND, FOLLOWED
BY SUBACUTE TETANUS; RECOVERY.

(Under the care of Mr. FLOWER.)

It is difficult to say how much of the mildness of the character of the symptoms, and the subsequent recovery in this case, were due to the treatment. From the very outset of the disease the patient was kept for several days completely under the influence of aconite; but the cessation of this medicine for a short time, on account of its producing sickness, was not followed by any increase of the tetanic symptoms. The hypodermic injection of morphia undoubtedly did good, procuring sleep when the system was almost worn out by the want of it; and the convenience of this method of administering medicine,