with their degrees in their pockets, and demanding registration in this country without examination. If any foreigner or colonist wish to practise in this kingdom, let him undergo the same examination as British medical students, and by the same examining boards.

I think your Bill deals very leniently with the "medical authorities," by which I presume you mean the medical colleges and schools. Let them by all means send four members to the General Medical Council. But I see no reason for allowing them to grant medical degrees at all. The colleges might consider it a hardship to lose the examination fees. A share of the examination fees of the new examining boards, or of the cost of the licence, might be given them in proper proportions, and the fees could be fixed sufficiently high to compensate all parties fairly. At present the University of Aberdeen charge £15 15s. for their degrees (£5 5s. at each of the three examinations), and the University of Edinburgh £25—at least, it was so when I studied in Edinburgh. In future, let the pass fees, or cost of the licence, be £25, or £30, or £35, which I should think would produce enough to compensate all.

Two degrees might be granted by the new examining boards—namely, Licentiate of Medicine and Surgery, and Doctor of Medicine and Surgery; for the latter degree a more extensive course of study and a severer examination should be required.

I am, Sir, your obedient servant,

Kingussie, Dec. 6th, 1870.

J. C. ORCHARD.

To the Editor of THE LANCET.

SIR,—At a meeting of the Central Somerset Medical Society, held here on the 8th inst., a resolution was passed as follows:—

"That the thanks of the members of this Society are due to the Editor of THE LANCET for a Draft of a Bill to amend the Medical Act of 1858; that this Society accepts it as an instalment that his endeavours will eventually lead to the formation of a central examining board for exclusively conferring degrees."

I am, Sir, yours faithfully,

H. C. WALKER.

Shepton Mallet, Dec. 12th, 1870. Tr. and Sec., Cen. Som. Med. Soc.

SANITARY SCIENCE AT COLCHESTER.

To the Editor of THE LANCET.

SIR,—Every week you report the spread of scarlet fever, small-pox, and other contagious diseases. Your correspondents write to you very learned letters about the mode in which such diseases spread, but few of them notice the fact that the so-called sanitary reformers and inspectors have themselves very much to blame.

In this town of Colchester the Board of Guardians have erected a hospital for the reception of contagious diseases, which has the following admirable facilities for spreading the disease among the inhabitants:—1. It is thrust in, as it were, between the east side of the Workhouse and a row of cottages, eighteen in number, inhabited by poor people, the end of the pest-house being forty feet from the nearest cottage. Beyond this row of cottages is the public road, in a hollow, and rising above the road are the gardens of one of the most populous parts of Colchester. 2. Abutting on the pest-house on the west is the playground of the poor children of the Union; and close to it is the pay-room, where the poor congregate to get their allowance. 3. To the north, about one hundred yards or so from the pest-house, is the public water-works, with a large open tank, which supplies the town with water. Beyond, half a mile off, is the Idiot Asylum, but there is hardly any break in the intermediate houses. 4. To the south there is a continuous street of thickly-inhabited houses, communicating with the principal thoroughfare of Colchester.

After this pest-house had been raised above its foundation, the inhabitants of the cottages demurred, through their landlord, to the erection of such a building within twelve yards of their bedroom windows, and the guardians requested the opinion of myself and the medical officer of the union as to the eligibility of the site, and we both con-

demned it. But it appears that a non-medical Poor-law Commissioner had approved the site, and the guardians determined, spite of our opinion, to continue the building. The subject was brought before the Commissioners of Lighting and Paving, and in consequence of their representation the guardians requested the Poor-law Board to send down a sanitary inspector. Of course the sanitary inspector would not disturb the site sanctioned by one of his board, and so the building went on. The Commissioners of Lighting and Paving now applied to the Sanitary Board of the Privy Council, forwarding to them a memorial against the building, signed by 70 immediate inhabitants. The Privy Council, however, wrote to say that, the place having been inspected by a sanitary officer of the Poor-law Board, they declined to interfere.

Now, Dr. W. Budd has *proved*, and every educated medical man of experience *knows*, that infectious diseases are conveyed by atmospheric currents from the sick room to healthy places all around them, to a distance, according to Dr. Budd's deduction, of at least a mile and a half. But instead of studying the practical, our so-called sanitary reformers are enveloping themselves in a fog of microscopic gemmules, which they think may probably be the *vera causa* of infection; and while they are fighting about these gemmules, they permit manufactories of contagion to be erected amid the residences of our helpless poor. The effect of the building at Colchester on the minds of intelligent people is, that the whole system of sanitary reform may be comprised in the word "humbug." And, with all deference to constituted authorities and Poor-law guardians, I am very much of the same opinion.

I am, Sir, your obedient servant,

Colchester, Dec. 10th, 1870.

C. R. BREE, M.D.,
Senior Physician to the Essex and
Colchester Hospital.

SKIN-GRAFTING.

To the Editor of THE LANCET.

SIR,—Much has been written of late on skin-grafting. From my own experience of it in the hospital here, I can corroborate every statement that has been made on the subject. I think the practice of it is of immense consequence in the treatment of ulcers, particularly in the treatment of extensive granulating sores following burns, &c. It is quite unnecessary, however, to put the patient to the pain of cutting a piece of healthy skin from the body for the purpose of transplanting it on the sore. All that is necessary to be done is, to take a long bistoury, or razor, and shave or scrape off the epidermic scales from the convex parts of the extremities, such as on the outer and convex aspects of the forearms and thighs, and place them on the healthy granulations. This can best be done by brushing the scales off the bistoury with a camel-hair pencil. After securing them *in situ* for three or four days by means of common adhesive plaster, the granulations on which the epidermic scales were placed assume a glazed bluish appearance, which gradually grows into skin, and meets the nearest edge of the healing ulcer, which edge shoots out, and meets the newly-formed skin on the granulations. The result is a continuity of healthy skin. Such has been the result of the practice here, and it is not necessary for me to enlarge on the advantages of it.

It has been mentioned by some of the writers on skin-grafting that the formation of the new skin is accounted for on the cell theory. I have no doubt that it is so, for, according to the observations of Schwann on the theory of the growth of the epiderma, these scales are nothing more than dried cells having a nucleus in them, though it is stated that they are scarcely apparent. Mr. Erasmus Wilson, too, states, in his work on Diseases of the Skin, that the formation of the epidermal scales results from the desiccation of the cells. Now, if the scales are scraped off the skin and placed on healthy granulations, and kept on them for a time—say four days,—is it not possible that the scales may imbibe serum from the plastic lymph on the granulations and adjacent tissues, and form cells, which ultimately go to the formation of skin? At all events, the practice of placing epidermal scales on a healthy granulating sore causes it to heal or skin over more rapidly, not only from the edge, but also in the centre of it.

I may mention that my colleague, Professor Pirrie, in his work "On the Principles and Practice of Surgery," makes mention of a case he had in which a large isolated portion of skin formed in the middle of an ulcer, and gradually increased in size till it joined that formed from the circumference of it. It is quite possible that the isolated piece of skin might have grown from an epidermal scale which had accidentally fallen on the ulcer.

I am, Sir, your obedient servant,

DAVID FIDDES,

Aberdeen, Dec. 5th, 1870.

Surgeon to the Royal Infirmary, &c.

THE SURGERY OF THE WAR.

(FROM OUR SPECIAL CORRESPONDENT.)

(Continued from p. 619.)

WHEN considering the results of treatment, it must be remembered that for days before and during the three days of the battle (of Sedan) the soldiers of the French army had been fearfully underfed, while at the same time they were undergoing the greatest possible physical strain in a prolonged fight, ending in a disastrous and most depressing defeat. They commenced, therefore, in an already weakened state to undergo one of the most exhausting of all illnesses, and, moreover, from the enormous mass of wounded and prisoners suddenly thrown on the hands of the Prussians, it was impossible to find them more than sufficient food to maintain a bare existence. Under these circumstances it can scarcely be wondered that conservative surgery, especially of the lower limbs, did not meet with the success which might have been hoped for. Large numbers of cases of compound fractures of the thigh and leg, in which an attempt had been made to save the limb, were sent in by the German surgeons, and by far the greater number of these cases ended in amputation; and, unfortunately, too often in death. The weak state of the patients was again seen in the secondary amputations, many cases occurring in which the flaps sloughed in whole or in part, and in the few who survived, union was very slow, and accompanied by profuse and offensive discharge. Considering the wounds independently of the injury to the bone, the same treatment was adopted in almost all cases. From the commencement, all foreign bodies having been removed, they were dressed with a watery solution of carbolic acid (about 1 to 50) whenever it could be procured. It was applied on charpie, or lint, covered with oil-silk, and lightly kept in place by means of a bandage. This dressing was comparatively powerless in preventing decomposition, as, from the heat of the body, the carbolic acid soon evaporated, leaving a simple water dressing. But yet the patients recognised its temporary value, and when their wounds were being dressed, frequently inquired if we had put any "acide phénique" in the water. The oily solution was but little used, owing at first to the want of oil. The only other means used to destroy the smell was carded oakum, and this was found most effectual. It might be almost soaked in pus for hours and yet remain perfectly free from any odour of putrefaction. When the wounds were suppurating freely, they were washed out daily with a solution of carbolic acid (1 to 50) injected freely into the wound by means of a syringe or irrigator. As may be readily imagined, however, these means failed utterly in preventing decomposition of the discharges in the deep parts of the wounds, so that in all cases at the daily dressing more or less fetor was found. This was especially noticeable in deep wounds of the thigh, particularly when there was only one opening with some accumulation of pus. As for dressing exactly according to Mr. Lister's plan, I saw none of it anywhere.

The want of drainage-tubes was greatly felt, scarcely any having been sent out from England. As a substitute, a piece of carded oakum twisted up into a string was used, but it seemed to me rather to obstruct than favour the exit of the pus. The only methods of treatment left, therefore, were early and free counter-openings, and enlarging the existing openings when necessary by means of tents.

In the treatment of the fractures there was little worthy of remark. The wire splints were found very useful, espe-

cially in fractures of the lower limb and in excisions of the elbow and knee. The want of plaster of Paris was greatly felt for the first month, and, from what I saw at Sedan and elsewhere, I believe conservative surgery in fractures of the leg to be hardly possible without it, with the present mode of dressing.

I reached Sedan just in time to see the greater part of the secondary amputations and excisions, which were very abundant till nearly the end of September. At first they were all performed by Dr. McCormack, but afterwards this regulation was relaxed, and all ordinary operations were given up to the surgeons who had actual charge of the cases. The excisions in the upper limb were of course of a very irregular nature, owing to the shattered state of the ends of the bones. In one case Dr. McCormack excised both the elbow and shoulder on the same arm, but the man did not recover. As a rule, however, the excisions in the upper limb had fair success; but those of the knee were most fatal, not one, I believe, recovering. I heard the same everywhere of this operation. Stromeyer, who was near Sedan, was said to have done thirty-six without a single success; and, on the whole, this is not to be wondered at when we consider the exhausting nature of the discharge from the wound, the extreme care necessary to keep the bones in position, and the unfavourable circumstances in which these patients were placed with regard to diet and nursing. Unless some better results are reported from other surgeons, I should think the operation would be abandoned for the future in military surgery. Amputations in the upper limb were not common, but such as there were showed the usual favourable results. In the lower limb, on the contrary, scarcely an amputation recovered, death resulting from exhaustion and sloughing of the flaps, and frequently from pyæmia. In securing the vessels, torsion was considerably used, and with the best results. During my stay at Sedan I saw it successfully applied to the femoral in an amputation at the hip-joint, and to the same vessel in the thigh in several cases, and many times to the tibials. The dressing usually adopted for stumps was lint soaked in carbolic acid lotion, or a soft covering of carded oakum, which latter was found to answer extremely well, readily absorbing the discharges, and preventing any unpleasant smell. Secondary hæmorrhage was not very common. In one case Dr. McCormack ligatured the sub-clavian for hæmorrhage from a stump after amputation in the middle of the arm, and succeeded in arresting the hæmorrhage; but the patient, I believe, died afterwards. In another case the femoral was ligatured for hæmorrhage from a leg-stump, I believe with the same result. The general health of the hospital was at no time very good. During the first two weeks after the battle, diarrhoea, in some cases almost dysenteric, was very troublesome, causing directly and indirectly many deaths. This was supposed to be due in part to the pollution of the water by the bodies of the three Zouaves who fell into the well. The remedies most used and found most effectual were bismuth and chlorodyne, given either together or separately.

Pyæmia was almost unknown till towards the end of the third week, when it broke out severely, causing a great number of deaths. Erysipelas was only an occasional occurrence, and there was no hospital gangrene. During the first month there were, I believe, only two cases of tetanus, both terminating fatally. The drug used in both was hydrate of chloral, which at least served to ease the sufferings of the unfortunate men. The means adopted for the prevention and limitation of hospital diseases were all that could be desired. No sponges were allowed to be used in the dressing; all dirty dressings were taken out of the wards as soon as possible, and burned daily; no bandage was used a second time if at all soiled; the same charpie and water were never used to wash two different wounds; and carbolic acid was freely employed, both as a lotion for dressing the wounds and for washing them; and, moreover, it was frequently sprinkled about the floors and around the beds of the patients from whom there was the greatest discharge, and in some cases even on the beds. Above all, the greatest attention was paid to ventilation, the windows being constantly open, somewhat to the astonishment of some of the German surgeons who visited the hospital. The affected patients were, as far as possible, removed to the tents which had been left standing for that purpose. In spite of all this, after the first three weeks pyæmia was the great