which might easily be turned to account in irrigating land at a sufficient distance from the town to prevent its becoming a nuisance. Chesterfield, we believe, is prospering and increasing in population, and there is every reason, therefore, why the streets should not be turned into a cattle market, and some attention should be given to the subject of public wash-houses and baths.

THE REMOVAL OF KNIGHTSBRIDGE BARRACKS.

WE regret to hear that the removal of Knightsbridge Barracks has been indefinitely postponed. It seems that the Government have been unable to complete the arrangements for removal in consequence of a new project to include the demolition of other property, and some considerable alterations of the roadway, both of which improvements would require the co-operation of the Metropolitan Board of Works and special Act of Parliament. There is no time for legislation this session, and the excuse will doubtless result in squandering a considerable sum on a building which has been condemned, and must be removed ere long.

THE CENSUS.

THE census returns show the population of the United Kingdom to be 31,465,480; that of England is 22,704,108, of Scotland 3,358,613, and of Ireland 5,402,759. The increase since the census of 1861 has been at the rate of 13.1 per cent. in England, and 9.7 per cent. in Scotland; the Irish population has decreased 6.8 per cent. in the same interval, the flood of emigration having been very large.

At the last meeting of the Liverpool guardians a letter was read from Dr. Barnes, one of the resident medical officers of the workhouse, praying for leave of absence, as he had been advised to try change of air for an ailment from which he is suffering, and which he had contracted in the discharge of his duties. It was resolved unanimously that Dr. Barnes should be granted leave of absence for six months, that his salary be continued during that time, and that a substitute be paid to take his duties.

WE would remind all those interested in Poor-law medical reform, that Mr. Corrance's notice of motion will come on for discussion possibly on the 23rd inst., but probably some time next week. As it is most desirable that that gentleman should be well supported, we hope that all those who have influence with members of Parliament will not fail to communicate with them directly, and urge their attendance.

THE Baly Medal—awarded to “the person who shall be deemed to have most distinguished himself in the science of physiology, especially during the two years immediately preceding the award”—has been adjudged to Dr. Lionel Beale, to whom it was presented at the conclusion of the Harveian Oration on Wednesday. Professor Owen was its last recipient.

DR. STEVENS, on the part of the Privy Council, takes grave exception to the state of Longton, in Staffordshire. Filthy slush covers the streets, and the houses are nearly as bad as those of Durham, which is saying a great deal. From 206 the small-pox cases in Longton rose last week to 243; the deaths from 11 to 17.

ACCORDING to the *Deutsche Post*, the wife of a miller named Preuss has been safely delivered of four healthy children, three girls and a boy. The mother and her small family are doing well, but we are not informed what the parents think of being in this manner *ter quaterque beati*.

DR. CHRISTISON, President of the Council of the Royal Society of Edinburgh, has addressed a memorial to the Royal Commission appointed to make inquiry as to scientific instruction, the advancement of science, and the aid thereto derived from Parliamentary grants.

DR. BARNES has been elected by the Society of Physicians of St. Petersburg its first honorary member.

THE OPENING OF ST. THOMAS'S HOSPITAL.

ON Wednesday Her Majesty the Queen opened the new hospital with all formality, and in the presence of a numerous and distinguished company specially invited for the occasion. Among them were the Archbishops of Canterbury and York, the Bishop of Winchester, Mr. Gladstone, Mr. Disraeli, the Lord Mayor, the Dean of Westminster, the Presidents of the Royal Colleges of Physicians and Surgeons, and many other personages of social or official distinction.

Her Majesty reached the hospital punctually at noon, accompanied by the Prince and Princess of Wales, the Duke of Edinburgh, the Princess Louise and the Marquis of Lorne, Prince Christian, the Princess Beatrice, the Prince and Princess of Teck, and the Duke of Cambridge. The Queen was received at the corridor entrance by a deputation of Governors, and was conducted by a procession to a dais in the entrance hall, where addresses were presented. The Royal party then left the hall, and proceeded by the main staircase to visit the chapel and wards in two of the pavilions, to which the Queen gave the names of the Victoria and Albert wards. The procession then returned to the hall, where a prayer was read by the Archbishop of Canterbury, and a hymn was sung by choristers, after which Mr. Bruce, in the name of her Majesty, declared the hospital open. A benediction was pronounced by the Archbishop; and then the Treasurer, being directed to kneel, received the honour of knighthood from the Queen's hand. This concluded the ceremonial, and the Royal party were conducted to their carriages by the main entrance. The senior physician, Dr. Peacock, the senior surgeon, Mr. Le Gros Clark, and the dean of the school, Dr. Barnes, represented the medical staff in the procession.

The old students' gift to the new hospital—a bust of Cheselden and one of Mead, by Mr. Weekes, R.A.—excited the interest of professional visitors.

Correspondence.

“Audi alteram partem.”

DISSECTION POISONS.

To the Editor of THE LANCET.

SIR,—On reading the lecture on “Dissection Poisons” by Mr. Paget, published in your journal of May 27th, I sent to the author a few details of my own case, which seemed to confirm and illustrate some of his conclusions. These details Mr. Paget urged me to publish, “for the sake of the study of immunities, which are as necessary to be considered in pathology as are the liabilities to disease.” I venture therefore, in accordance with this suggestion, to send you the following notes.

Fourteen years ago, when residing in King's College Hospital, and performing the duties of Pathological Registrar, I was constantly exposed to infection of all kinds, and made all the post-mortem examinations, often with cut fingers; but neither fever poisons nor the fluids of the dead body had any effect upon me.

After a holiday spent in the pure air of the coast I returned to my post in perfect health, and immediately, on the very day of my return, I got a dissection wound and caught scarlet fever. The right forefinger, which had been scratched, festered slightly, but the affection seemed purely

local. On the sixth day after return to hospital and exposure to infection, scarlatina symptoms appeared; next day there was much membranous exudation about the fauces, and great prostration of strength. The pustule on the finger, which had almost died away, now re-appeared, rapidly inflamed, the axillary glands became involved, and the whole arm erysipelatous. The exhaustion was so great that it was impossible to turn in bed without assistance, and I lost 21 lb. in weight in ten days.

Nitrate of silver was repeatedly applied to the fauces, the inflamed arm was kept in a warm bath, and, under good nursing and feeding, strength was soon regained, and in two or three weeks I returned to work, having no longer any seeming susceptibility to post-mortem or fever poisons.

My own personal experience seems therefore strikingly to illustrate Mr. Paget's statements. 1. That continued exposure to infection lessens liability to attack, but that on withdrawal from such exposure the liability returns. 2. That it is not always the most healthy who have the greatest immunity, but rather those who (although possibly in feeble health) are inured by previous exposure. 3. That dissection poisons produce their severe effects when the power of resistance is lowered, or when the organs are charged with some morbid product on which the poisons flourish and multiply.—I am, Sir, your obedient servant,

June 14th, 1871.

E. SYMES THOMPSON.

THE CONSTANT CURRENT IN THERAPEUTICS.

To the Editor of THE LANCET.

SIR,—The recent debate at the Clinical Society, and the correspondence in your columns which has resulted therefrom, have raised an important question with regard to electro-therapeutics. In answer to Dr. Gull's request for some scientific basis for the use of the constant current, and for a better diagnosis of the cases in which it may be of benefit, permit me shortly to state the result of two years' observation, during which time I have employed electricity in a large number of very different affections. A record, with critical examination of the cases, is in preparation for publication.

In the relief and cure of pain there are two distinct effects produced by the application of the constant current to a suffering nerve. The first consists of an alteration of the nerve-state represented by pain, producing immediate relief. The duration of this effect depends entirely upon the nature of the cause which is producing the pain; sometimes lasting only some minutes, in others hours, while in a few it is at once permanent. The second action is restorative or tonic, whereby the nutrition of the nerve is so improved as to render it less vulnerable to the causes producing the pain-state.

Many cases of neuralgia are due to causes external to the nerve—in the blood, or in the tissues supplied by the nerve, or in some central relation to it. So long as these external causes are in action, an irritable state of the nerve is upheld, and the duration of the effect obtained by the electric current is in proportion to the activity of the exciting causes. Of the effect which the constant current may have upon these I do not at present speak.

But there are many other cases, where there continues, long after the primary cause has disappeared, a weakly condition of the nerve; it has never recovered its healthy state, and any slight disturbance of the system—cold, fatigue, &c.—is sufficient to renew the pain-state. Here the first action of the electricity is more lasting, but the second must likewise be called in before the effect is permanent—that is, a cure obtained.

Both faradic and voltaic electricity have the power of relieving pain; but the effect of the former is less lasting than that of the latter, because greatly inferior to it in its tonic effect, and the greater liability of fatiguing instead of invigorating the nerve by its use.

The effects above spoken of, rest on the double basis of clinical observation and experimental physiology. They are perfectly distinct, although the one may be the first step in the process of the other, but it only reaches part of the way. The mode of application of the current in the production of each is also different, and depends upon

clearly established principles, without attention to which the result is not obtained. I cannot, however, enter upon the illustration of this part of the question.

What better basis could be desired to establish the scientific character of any therapeutic agent?

I have above alluded to only what I consider the thoroughly established point in the *modus operandi*. But it in no way exhausts the subject. Other effects are claimed for the agent, whereby it may act on the primary causes; such as its catalytic action, modifying the inflammatory process, promoting absorption, &c.; but these are points which still require investigation. There is no doubt, however, that there awaits a rich harvest for the present and future workers in this field of inquiry.

The *diagnosis* of the large class of pains which I have indicated can be successfully treated by voltaism, is not difficult. How often are patients sent to travel that they may establish their health and lose their pains on the way? How often is the whole series of tonics gone through in the vain attempt to reach a local weakness through the system in general? The great point is the recognition of the fact that the pain-state of a nerve may be readily excited long after the primary cause has ceased, and no greater aid to diagnosis exists than the constant current. Many a patient is still drugged with anti-rheumatic remedies for pains, when the rheumatic condition no longer exists. Many a poor woman is told, and treated accordingly, that her back pain is due to uterine irritation, which, true at one time, has long been false. And so on, and so on. Armed with the constant current, you have at once the means of correct diagnosis and the most direct and powerful agent for cure.—I am, Sir, your obedient servant,

Edinburgh, June 6th, 1871.

WM. STEPHENSON.

To the Editor of THE LANCET.

SIR,—I am obliged for your copious comments on my letter. My intention was, not at all to enter into discussion with Dr. Anstie and Dr. Gull, but to point out that natural philosophy and medicine will, in course of time, confuse the term—one speaking of a constant *battery*, the other of a constant *current*. Dr. Anstie is wrong in calling Smee's battery constant, as I believe that term to be confined by electricians to batteries having equal action for a long time, the elements being constantly immersed.

I wish I could learn the constitution of Leclanche's battery. One I mounted myself failed, but I see that it is coming into use for bell and telegraph purposes. Can you tell me where the combination is fully described?

Yours sincerely,

CAREY PEARCE COOMBS, M.D. Lond.

Castle Cary, near Bath, June 12th, 1871.

* * Of course our correspondent is *technically* right about Foveaux's Smee's battery. But it is not improper to speak of the current delivered from it as constant; as, in fact, it produces all the specific effects of the constant current. We cannot, at the moment, assist Dr. Coombs about Leclanche's battery.—Ed. L.

PIROGOFF'S OPERATION.

To the Editor of THE LANCET.

SIR,—Having recently visited the Shepton Mallett Hospital, I had an opportunity of seeing Mr. Samuel Craddock's cases of Pirogoff's amputation. I can fully confirm the account given by him in THE LANCET of June 10th, of the very satisfactory state of the stumps in these two cases. In both, the bones were firmly ankylosed, and the cushion covering the heel was plump and bore pressure well. Both patients were able to walk as well as if the whole foot had been left. The shortening in one (the man) was under an inch, and in the case of the woman very slightly, if at all, over an inch. Such results, though not invariably following this form of amputation, are certainly very encouraging, and are sufficient to make surgeons give the operation a preference over Mr. Syme's, in which the shortening must always be more considerable.

I may state, perhaps, that at the time of my visit to the Shepton Mallett Hospital there were two cases of traumatic tetanus in process of recovery. The symptoms had been