artillery. The equipment of field hospital clothing and bedding taken into the camp by regiments is to be in the proportion of 3 per cent. of strength—that is what, under the established scale, is allowed for three men in hospital, as sufficient to have the bed linen and hospital clothing regularly changed. A general field hospital for British troops and another for native troops are directed to be established at Lawrencepoor, formed of the hospital establishments of different regiments marching to camp, but detached from them at this point. These hospitals are furnished to meet all ordinary requirements, and to them all serious cases of injury or sickness are to be transferred from the field. Each regiment and battery is to be provided with capital and pocket cases of instruments, a fair supply of splints and bandages, a small supply of useful medicines and articles of diet, such as essence of beef, brandy, &c. Should a man be seriously injured in the field, the medical officer in attendance on him is to write a few lines in pencil as to the particulars of the injury, and send him back to camp, where steps will be taken to detain him or send him on to the hospital in rear at Lawrencepoor. A medical officer is always to be present with each regiment and battery in the field, and one medical officer is always to be on duty in each brigade. A field hospital tent is to be supplied for every brigade. A certain proportion of doolies and doolie-bearers and ambulance-carts are to accompany and be attached to the various brigades of British troops. The arrangements for camp conservancy and water-supply seem to be good. As regards the latter, the efficient protection of the water-supply from waste and pollution is to be arranged for by officers commanding brigades, sanitary police, and sentries being employed for that purpose. A liberal allowance of Macnamara's and other filters is to be issued.

Correspondence.

"Audi alteram partem."

THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—I am glad to see that the observations which Mr. H. Lee made in his Lettsomian Lectures on the subject of vaginal discharges in women, as bearing on the Contagious Diseases Acts, have been published in your journal. Those observations had previously attracted my attention, and, as coming from so high an authority, they will doubtless receive the attention of all who are interested in the subject. It will, therefore, be useful, in order to elucidate the question, if Mr. Lee would state a little more fully how he thinks that the admitted difficulty of distinguishing the venereal from the non-venereal discharges in women bears upon the question of the Contagious Diseases Acts. It must be remembered that every woman subjected to these Acts is proved, either by her own admission or by testimony given before a magistrate, to be a public prostitute, before she is liable to any medical examination whatever; and that for the whole time during which she is submitted to periodical examination she is in the daily habit of promiscuous sexual intercourse. Admitting to the fullest extent which can be demanded by any reasonable person that cases of vaginal discharges occur in which it is very difficult to decide whether they are venereal or no, I would ask how this bears on the question whether it is desirable in the case of a known prostitute to seclude her and cure her of such discharge (whether venereal or no) before she can again indulge in promiscuous intercourse? Would Mr. Lee deny that what he says about men is true also about women? "Most of these discharges may be communicated in kind. A pus-globule, from whatever source derived, will grow, subdivide, and multiply for a time when translated to another part, and may there produce an action of the same nature as that which originally produced it. Some of these actions have a specific character." If it is true that many of these discharges are specific, and almost all are communicable, what does it matter for the purposes of the Contagious Diseases Acts whether they are what we technically call venereal or no? This was a question which was, I need

hardly say, fully debated before the Contagious Diseases Acts Commission, of which I was a member. Some accidental circumstance deprived us of the advantage of hearing Mr. Lee's opinions, at that time, from his own mouth, but we endeavoured to give as much weight as we thought it deserved to the difficulty of diagnosis above referred to. On mature reflection it appeared to those of the Commissioners who were in favour of the principle of the Acts, that this difficulty had no bearing on that principle, since if it is justifiable to seclude a prostitute who is diseased, the occasional difficulty of diagnosing the disease ought not to stand as an objection to using the only means by which the diagnosis can be established. And, as a matter of detail and practice, it was thought that to exclude a public woman so long as she is suffering from a purulent discharge is an indubitable benefit to herself and to those with whom she would otherwise have connexion; while the opposite course of allowing the dubious cases to go free would, no doubt, turn loose on the town a proportion, hitherto indeterminable, but, I believe, very considerable, of cases of specific venereal disease. If I am mistaken in these ideas I shall be very thankful to my respected colleague for correction, but I think anyone who will read his essay on Gonorrhœa in "A System of Surgery" (second edition, vol. 5), and meditate especially on that passage (on p. 186) in which he dwells on the liability of any purulent fluid furnished by the female generative organs to excite gonorrhœa in the male, and on the probability that such purulent discharge may also convey syphilis if the woman be constitutionally syphilitic, will agree with me that I have respectable authority for them.

I am, Sir, yours, &c.,

Clarges-street, Feb. 8th, 1873.

T. HOLMES.

THE LATE DEATH UNDER NITROUS OXIDE.

To the Editor of THE LANCET.

SIR,—I think you will agree with me that inferences drawn from inaccurate data are usually erroneous, and I believe you will allow that the conclusions arrived at by the writer of the annotation in THE LANCET of Feb. 1st on the recent death following the administration of nitrous oxide, must be included in this category, for the particulars themselves in the newspaper report on which he founds his reasoning are incorrect. The weight of any statement bearing your authority is so great that these erroneous conclusions will be hereafter quoted as sound ones if they remain unchallenged; and I trust you will permit me to explain in what particulars they err. In the first place, the writer says: "These facts clearly show that the assertion, so constantly made, that nitrous oxide does not affect the heart, is without foundation, for the first symptom presented by Miss Wyndham under the influence of the gas was rapidity of pulse with diminution of volume." What Dr. Pattinson really does say is, and I quote from the report drawn up by him in conjunction with Dr. Drake and Mr. Browne Mason, "that the pulse became less rapid, but that its volume did not vary." And this testimony agrees with and support the conclusions formed by the committee, of which I had the honour of being a member, appointed to investigate the action of nitrous oxide, and does not in any way bear out the suggestion of your annotation.

Again, the writer says: "The immediate cause of death was clearly paralysis of respiration. There was no obstruction to the air-passages, and the tongue was protruded from the mouth while she still respired." This statement also is not borne out by fact, for there was considerable enlargement of both tonsils, with chronic elongation of the uvula interfering with her breathing, and rendering it at times somewhat loud, and that sort of breathing which may be explained by the term "snorting." And we find a little further on in Dr. Pattinson's report: "The symptoms now became alarming, the features appeared puffy and swollen, the eyeballs protruding, and the breathing thick and stertorous." Surely, Sir, this account does not resemble the effect of paralysis of respiratory muscles. In all the animals that I have seen killed with nitrous oxide the breathing has been quiet, more and more shallow, then intermitting, with the intervals longer and longer till death ensued. In this unfortunate case, Dr. Pattinson gives it as his opinion,

"that after the gag was removed" no more air entered the chest; and both he and Dr. Drake agree that, when artificial respiration was attempted, the breathing sounds produced were only respiratory ones, and that there was no entrance of any air whatever. Now, had there been complete paralysis of respiration, it would not have prevented the entrance of air into the chest when the thorax was raised, as on the Silvester method.

That nitrous oxide is not safe in inexperienced hands, I admit; but when given by a skilled administrator, I believe it to be the safest anæsthetic in use, and I feel quite sure that this patient did not die from the effects of the gas.

There are some other inaccuracies which I pass over.

I am, Sir, yours faithfully,

F. WOODHOUSE BRAINE, F.R.C.S.

Maddox-street, W., February, 1873.

Report of the late Fatal Operation under Nitrous Oxide Gas.
By Mr. BROWNE MASON. (Read before the Odontological Society.)

THINKING that the members of the Odontological Society of Great Britain will like to hear full particulars of the late fatal case following the administration of nitrous-oxide gas that has occurred in my practice, I forward the subjoined report, prepared in conjunction with Drs. Drake and Pattinson, which my kind friend Mr. Braine has promised to read for me in my unavoidable absence; and I should like to take this opportunity of thanking the large number of my brother practitioners who have so kindly expressed their sympathy with me under the peculiarly trying and painful circumstances in which I have been placed.

On the 22nd of January, a lady, then residing at Seaton, near Axminster, Devon, came to consult me about the removal of an upper second molar, on the left side of the mouth. The patient was thirty-eight years of age, had generally enjoyed good health, and there was no reason for believing that any thoracic disease existed. She was of middle height, stout, with a peculiar cast of countenance, having prominent eyes, a very flat superior maxillary arch, the lower maxilla being very underhung. The nasal arch was somewhat flattened, and this, together with her having chronic elongation of the uvula, and considerable enlargement of both tonsils, interfered slightly with her breathing, rendering it at times somewhat loud—that sort of breathing which may be expressed by the term "snorting," particularly after much exertion, such as going up stairs. On the day in question she was unusually well and in good spirits. On inspecting her mouth, I found considerable disorder in the arrangement of the teeth. On the left side of the upper jaw the second bicuspid was situated with what should have been its posterior surface in juxtaposition with, and against the lingual surface of, the second molar, which was the tooth to be extracted. This tooth had been the subject of so much caries that a probe could be passed right through from the anterior to the posterior surface. The pulp was gone, and there was excessive periosteal inflammation. The bicuspid being quite sound, I was desirous of saving it, expecting that in time, after the removal of the molar, it would drop into the dental arch and become useful. It was not possible to remove the tooth with the ordinary forceps without disturbing the bicuspid; so I decided on cutting off the crown of the diseased tooth with the excising forceps, then separating the fangs, and removing them singly.

The patient, who had never taken gas before, being accompanied by her brother-in-law, Dr. Pattinson, who was also her medical attendant, desiring to be placed under the influence of gas, was seated in a Morrison's chair, which was inclined backwards, the face being turned somewhat up, to enable the upper teeth to be conveniently reached, and I proceeded to administer it in my usual manner, as follows:—Having ascertained that the patient had perfect freedom for breathing, the dress being open at the neck and throat, and quite loose elsewhere, I filled a gasholder of six-gallon capacity from one of Ash's fifty gallon iron bottles containing liquid gas. I used the ordinary face-piece usually supplied with the apparatus, but without the supplemental bag; the gag used on the occasion (an ordinary wooden one) is now shown you, and was inserted between the first molar and the second bicuspid in both jaws on the right side of the mouth, and well locked by the cusps of those teeth. I gave Dr. Pattinson charge of the pulse at the left

wrist. After the patient had taken some half-dozen respirations, he exclaimed that the pulse was not so rapid, but he states that its volume did not vary. I removed the face-piece, saying, "Let us do without it"; and accordingly cut off the crown of the tooth with the excising forceps, which of course did not hurt the patient, as the pulp was gone; but on my thrusting this spear-pointed instrument into the exposed pulp cavity, and with a twist splitting the fangs, so much pain was produced, owing to previous inflammation of the periosteum of the fangs, that the patient declared she could not bear any further operation unless more gas was given her. On rinsing out the mouth, the water was returned tinged with blood. An interval of ten minutes took place, during which the patient was somewhat hysterical; and the bleeding having quite ceased, the same gag was replaced in its former position, and the inhalation resumed. Dr. Pattinson cannot agree that the bleeding had quite ceased—it was never other than slight—but he thinks there must have been a minute quantity of blood exuding from the gum during the second inhalation. At Dr. Pattinson's request I now took charge of the pulse at the right wrist, while he held that at the left. The patient took the gas well, but just before quite losing consciousness she raised her right hand and pushed off the inhaler, which I replaced and continued the inhalation. Dr. Pattinson states it as his impression that no more gas was given after the inhaler was pushed away, the eyes never having closed. I noticed that the pupil of the right eye was slightly dilated, and on touching the conjunctiva reflex action took place, showing that this membrane was not completely insensible. On removing the inhaler I am quite certain no blueness existed, and finding the stumps exposed and uncovered with blood, I proceeded to operate, and attempted to seize the palatine fang with a pair of stump forceps, but, the edge giving way, I dislodged it with an elevator, with which I afterwards easily removed the outer fangs, the whole operation lasting about three-quarters of a minute. I received all the fragments of tooth in my fingers, and feel quite sure nothing passed backwards into the throat. I then saw for the first time blueness of the lips, but Dr. Pattinson had noticed that during the operation the ear on his side was bluish, and on looking at the face saw blueness there also; but he says he did not mention it, as he had heard of this discoloration occurring at gas administrations. The symptoms now became alarming; the features appeared puffy and swollen, the eyeballs protruding, the breathing thick and stertorous, the point of the tongue thrust between the teeth, but no convulsive movements were visible. The pulse and the appearance of the pupils at this period were not observed, attention being paid to more urgent matters. An old attendant, who was in the room, exclaimed, "Take out the gag; she is choking!" This was the first suspicion Dr. Pattinson had that anything was going wrong. The gag was then forcibly removed; it needed great force to separate the jaws, and possibly it was then chipped as you now see it, for it was perfect when inserted and exactly where I placed it at first. Mr. Braine, on examining the gag ten days after the operation, pointed out to me the broken surface, which I had not seen before; but never having looked at it since, the piece may have been broken accidentally after its use on this occasion. I then thrust the head forward to see that no blood got into the throat, and passed my finger down over the tongue to draw it forward, as it had now dropped back. From this time Dr. Pattinson thinks there was fixity of expression, and no further entrance of air into the chest. The window was thrown open, and the face dashed with cold water. I now left the patient in Dr. Pattinson's hands, to fetch further assistance. Whilst I was absent he continued his endeavours, and applied strong ammonia to the nostrils; there appeared to him to be some sensibility, inasmuch as she seemed to recoil slightly from the pungency of the ammonia. He then noticed about a tablespoonful of water lying at the back of the mouth, which had lodged there during the time he was dashing it over the face, and he drew the head forwards to allow it to run out. After an absence of about three minutes I returned with Dr. Drake, for years past one of the most eminent physicians of the city, and at the present time consulting physician to the Devon and Exeter Hospital. At this time the pulse was felt in both radials, and in the left carotid. I substituted

the handle of the forceps now exhibited for my finger to keep the tongue forward, for the purpose of allowing freer access of air, and Dr. Drake performed artificial respiration, by alternately pressing on the thorax and then allowing it to expand by its own elasticity, at the same time raising the arms, and this was continued until the pulse ceased, but the breathing sounds produced were only those of expiration. When Dr. Drake came into the room he found the patient in the position which has been described. Her countenance was dusky, face swollen, eyes projecting, tongue in the mouth, mouth open. He put his finger as far as he could into the throat, to find that nothing interfered with the access of air. She made three or four faint expiratory movements, accompanied by a slight sound. During this time the pulse beat regularly, and continued to do so nearly two minutes after all respiratory movements had ceased. The blueness about this time began to disappear. All our efforts were unavailing, the pulse ceased to beat, and death ensued. Two hours and a quarter after death the blueness had entirely disappeared.

It is much to be regretted that a post-mortem examination was not permitted, as it would doubtless have cleared up many points which must now ever remain in obscurity.

Dr. DRAKE said it was quite impossible for him, seeing her in a dying state a few moments only before death, to form any positive and precise inference as to the immediate cause of death, but his impression was as stated by him at the inquest.

THE VALUE OF EVIDENCE IN CASES OF DOUBTFUL IDENTITY.

To the Editor of THE LANCET.

SIR,—In a conversation which I had a short time since with my learned friend the coroner, Mr. Bedford, I submitted to him the following question:—"Supposing a witness (A) gave evidence that he recognised in a prisoner such strong resemblance to a criminal as to justify him in swearing to the identity, while a witness (B) gave evidence that, allowing the resemblance was strong, he saw differences which justified as positive a declaration that the prisoner was not the guilty person, what value would you attach to the evidence of A and B?" "I would attach much greater value," said Mr. Bedford, "from my experience in such cases, to the evidence of B. I should hesitate even if five witnesses were opposed to B." "Would you," I asked, "if the number were increased to ten or twenty?" "Yes, even to twenty," Mr. Bedford replied. In one of the daily papers it was remarked, in the case of Dr. Hessel, that although there was a very small minority in favour of Dr. Hessel's innocence, it was curious to observe that the minority proved correct. A close examination of this question will lead to a conclusion of some importance in such cases as those referred to.

The evidence which rests alone on resemblance will be seen to have a very much less value than that founded on differences, for the latter supposes not only a knowledge of points of resemblance, but such an accurate perception as to enable the witness to discern differences; that is to say, one witness is much less reliable than the other. On referring to some of the trials during the late disturbances in Paris, singular examples of this fact were brought out, and as the subject has not yet received the attention it deserves, I beg to submit it to the careful consideration of those who are called upon to decide in these difficult cases.

Not long since, two children were brought to me as patients by their mother, at the Hospital for Sick Children, who were twins of about seven years of age, and were so much alike in all respects that I put the question to the mother how she distinguished them. She was not able to say how she did so, but appeared to be amused at my conceiving that there could be any difficulty. From this I am inclined to think that it is hardly fair to demand of a witness the reasons of his opinion—that is, a distinct statement of the means by which he distinguishes the accused from the real criminal; and though a witness could easily indicate the points of resemblance, it becomes quite another question when he is examined as to points of difference.

To enter into the explanation of the singular power by which we discern between one person and another would require greater patience than could be justly expected from your readers.

I am, Sir, your obedient servant,

R. J. LEE,

Lecturer on Forensic Medicine at the Westminster Hospital School of Medicine.
February, 1873.

"THE TWENTIETH EXAMINING BODY."

To the Editor of THE LANCET.

SIR,—I am glad to see you remark once more on the grotesque parody on examining boards just started by the Obstetrical Society. I need not point out the many serious objections to this twentieth board, for you have already done so, and the *coup de grâce* has emanated from the examiners themselves. Let your readers turn to page 112 of THE LANCET for January 18th and reread the questions. Numbers 1 and 3 are well enough, but surely it does not rest with a midwife, as suggested in No. 3, to diagnose placenta prævia during the latter months of pregnancy? If the sign for suspicion—hæmorrhage—should present itself, even a midwife certificated by the Obstetrical Society should call in competent aid at once, and not fritter away valuable time in discussing to herself such probabilities. No. 4 I shall quote, for it shows what this hybrid system will lead to. "How would you advise the bringing up of a child (1) when partly (2) when wholly deprived of its mother's milk?" Here is a direct encouragement for these half-trained women to do exactly what we all know they are already too prone to, dabble in children's diseases. Let us have trained midwives by all means, but let their certification be undertaken by a body to whom they may be made responsible, as we are, for their after-conduct. If the Obstetrical Society gives a woman a diploma it has no further power over her; and although the paper is quite worthless, yet the public will not think so. In this way the members of the Obstetrical Society are directly infringing one of the great principles of all our medical corporations, that by which the members of each are liable to punishment at any time for misconduct.

I am, Sir, your obedient servant,

F. R. C. S.

"DANGERS AND DISABILITIES OF LICENTIATES OF THE COLLEGE OF PHYSICIANS, EDINBURGH."

To the Editor of THE LANCET.

SIR,—Those whose business calls them frequently to our county courts are aware that similar cases to those you refer to, under the above heading, in your last week's columns, are by no means of rare occurrence. I know of three such cases myself where plaintiffs were nonsuited because the defence raised was that they did not hold the Apothecaries' licence. The judges, when defendants raise the question, seem to rule that, as no part of the Apothecaries' Act has been repealed by the Medical Act, the whole of it is still in force, and that the effect of registration is merely to render it legal for medical men to practise and hold medical appointments according to the nature of their qualifications, the respective value and privileges of which are just the same, and only just the same, as they were before the passing of the Medical Act of 1858. And our law textbooks of even recent date teach that, without the Apothecaries' licence medical practitioners cannot recover their charges in a court of law for medicines supplied in medical cases.

As regards the value of correct registration, it may be worth mentioning that I know of one case where a gentleman, holding the Apothecaries' licence, removed from one part of London to another, and because his new address was not in the Medical Register of the time being, the judge refused to let him proceed with his case until he was satisfied that the fresh address had been properly registered.

I am, Sir, your obedient servant,

February 4th, 1873.

A DEBT COLLECTOR.