idea of preventing its outbreak by prophylactic measures has been crowned, as far as is known till now, by a splendid success. In order to seize the evil at its root, Crd in Leipzig carefully treated the least trace of vaginal catarrh of the pregnant women, so that, at the time of the confinement, the fluor had quite vanished. He had some success; but in a comparatively great percentage the outbreak of ophthalmia could not be prevented. The local treatment of the maternal passages, however valuable, did not prove sufficient; and this result led to the experiment* of disinfecting the eyes of all new-born children, without exception, as soon after birth as possible. In some cases, where a fluor albus existed, the disinfection of the eyes of the child was performed immediately after the birth of the head, before the body was born completely; and from the statistics obtained thus, you will judge yourselves with what success.

The method, which varies a little in the composition and strength of the lotions applied, is the following. Every child, without exception, whether of a healthy mother or of a mother suffering from leucorrhoea, must be subject to it as soon after birth as possible. The closed eyelids are washed and cleaned outside with a lotion of 2 per cent. carbolic acid.† This having been done most carefully, the eyelids have to be turned round, so that they form a complete ectropion, with the conjunctiva tarsi entirely exposed. Then, after carefully removing every trace of flaky secretion which may be found there, the conjunctiva has to be inundated with the 2 per cent. carbolic lotion for one to two minutes, care being taken that the lotion reaches every part of the conjunctival sac. This manipulation ought to be repeated three times daily during the first two days of life. Should the mother have had a very strong catarrh of the vagina, it will be valuable to pad the child's eyes, between the three times of cleaning, with a cotton-wool pad dipped in the same lotion, and renewed every half-hour during day-time.

You will object that this treatment, applied to every case of birth, is a great trouble and inconvenience for the practitioner, who is already hampered enough by his other duties; but let me now show to you the statistics obtained by this method.

In Leipzig, at the Obstetric Clinique, the percentage of ophthalmia came down from 13.6 per cent. to 7.6 per cent. at first; and in the following half-year, there was, out of two hundred births, only one child subject to ophthalmia; and in this one case the application of the lotions had, by neglect, been forgotten. In Halle, the percentage gradually came down from 12.5 per cent. to 6 per cent., and then to 3.6 per cent. It is obvious that in the beginning, when the nurses were not yet so well instructed, the percentage was yet comparatively great, and then decreased continually. My own statistics are yet small; the results of the experience, gathered by me in two of the Liverpool work-houses, are not yet numerous enough to be of a great weight, though, during the last four months, while the method was carried out, not a single case of ophthalmia neonatorum occurred. Those cases which I have treated privately, under my own personal care, are only five, but all of them were successful. In each of these cases, the mothers brought to me a child which had lost the sight by ophthalmia neonatorum, and consulted me about this child's eyes. All these mothers being pregnant and suffering from fluor albus, I advised them to have the necessary measures taken, that the expected child might be saved from the sad fate of the previous one. They were only too glad to have all necessary precautions taken, and the result was a complete success.

It is true that, in the majority of cases, this proceeding may be superfluous; but in the poorer classes, where not so much care can be afforded to the newborn, and where every disease has a more fertile ground, it is our duty to carry the possibility of fighting successfully against so destructive an inflammation, especially as it has been noticed that, even if the affection set in at all, it is much milder and less injurious than if left to itself. It will therefore be obvious of what great value this method is, if applied generally, both from the standpoint of humanity and of national economy. And, therefore, I hope you will support the specialist, who almost only sees the destructions made by this insidious disease, and who can but seldom do anything for its prevention; I hope that you, whose work is already overloaded with many a hard duty, will not decline to try in your practice the method which I have brought here before you.

* This had been recommended before by von Wecker and Graefe, but no experience had been gathered.

† This lotion of 2 per cent. carbolic acid in water answers perfectly well, and does not produce such strong reaction as the like lotion of nitrate of silver applied to a normal conjunctiva.

QUADRUPLE BIRTH.—A woman in Berlin was delivered a short time ago of four living children. One of them lived a day; another four days; and the other two a week.

CALABAR BEAN IN TETANUS, WITH CASES.

By J. THOMPSON HAGUE, L.R.C.P. and S. Edin., L.S.A.Lond.,
Late Medical Officer to H.H. the Sultan, Zanzibar.

THE patients, of whom the subjoined is an account, were all negroes, treated in the Zanzibar Military Hospital during 1879 and 1880.

CASE I.—Mohammed bin Sali was brought into the hospital on the morning of November 30th, in an exhausted and apparently moribund condition, having suffered from tetanus for fourteen days previously. When he arrived at the hospital, the spasms were so frequent as to be almost continuous. He was bent nearly double, and had bitten his tongue so that the end was almost dropping off. In order to allay the spasms caused by his removal upstairs into the ward, I administered chloroform. During the inhalation the spasms ceased; but as soon as the effect of the anæsthetic began to pass off, they returned with all their former violence. One-sixth of a grain of extractum physostigmatis was then given by subcutaneous injection. Two sharp spasms followed, but in eight minutes these had ceased, and the patient fell into a deep sleep, which lasted three hours. When he awoke, the patient was in all respects much better. He drank half-a-pint of beef-tea, and bore an enema without a spasm. Afterwards he took beef-tea and milk at intervals, and slept most of the day. Next morning, as the spasms had commenced again, I administered the Calabar bean as before, with the result of checking the spasms entirely. Nourishment was taken eagerly during the day, and the patient seemed convalescent.

On the following morning, the patient was sitting looking through the window, when he was seized with a spasm; his breathing was stopped, and he died almost instantly. I was not present; but from the account given by two of the hospital assistants, I think death was doubtless caused by spasmodic closure of the glottis.

CASE II.—Simba was admitted into hospital on February 8th, 1880, having been stabbed in three places. The bowels protruded from a wound of the abdomen, and there were incised wounds of the scalp and of the left forearm. All the wounds were treated with silver sutures, and a dressing of carbolic lotion, and until the third day all went well. On that day there was pricking pain in the scalp-wound, which was seen to be dry, gaping, and inflamed. The sutures were removed, and water-dressing applied. During the night tetanic symptoms were observed; and when I saw the patient in the morning, he had very frequent violent spasms. All the sutures were removed, and one-sixth of a grain of extract of physostigma was injected into the calf of the leg, under chloroform. On the withdrawal of the anæsthetic, the spasms were much less violent than before; but as they had not entirely ceased, the injection was repeated at the end of an hour, and with such good effect that there were no tetanic symptoms until evening. I then repeated the injection. After this there were no symptoms of tetanus; but the Calabar bean was given once a day for the next three days, as a precautionary measure. The patient was discharged cured at the end of twelve days.

CASE III.—Abdallah was admitted May 4th, 1880, suffering from frequent and severe tetanic spasms, which were judged to be excited by a nearly healed incised scalp-wound, which had been treated by a native medicine-man with powdered bluestone and incantation. One-sixth of a grain of extract of physostigma was given, under chloroform. The spasms returned in twenty minutes; and in an hour the injection was repeated, but the severity of the spasms increased. Twenty-five grains of chloral were given, but met with no more success than the Calabar bean. In the evening I made an elliptical incision on each side of the cicatrix, and repeated the injection. There were several spasms during the night; but each was less severe than its predecessor. In the morning the usual injection was given; and after this there was no more sign of tetanus than occasional twitchings of the muscles, and once or twice spasm of the glottis in swallowing. At the suggestion of one of the surgeons of H.M.S. *London*, I removed the cicatrix, lest, when it became again united to the rest of the scalp, it should give rise to the same symptoms as before. The wound granulated, and the patient was discharged.

As these three cases form the sum total of my experience in the treatment of tetanus, I have no claim to be didactic, or to dogmatise as to the course to be pursued by others who may have charge of similar cases; but there are two or three points of interest which induce me to publish these notes.

In the first case, emprosthotonos was one of the symptoms, which is so uncommon an occurrence, that Mr. Holmes says he has never spoken to anyone who has seen an example of it.

In Case III, no remedy that was tried seemed to be of use, until the

irritating cicatrix was isolated by incisions. In Case 11, the scalp-wound appeared to become unhealthy before the commencement of the spasms. In each case, the action of the Calabar bean in subduing the spasms was beyond dispute. The preparation used was in the form of gelatine discs, each containing one-sixth of a grain of eserine, and was supplied by Messrs. Savory and Moore.

THERAPEUTIC MEMORANDA.

ANTISEPTIC TREATMENT OF LUNG-DISEASES.

DR. BATTERBURY'S ingenious communication on the antiseptic treatment of lung-diseases, in last week's JOURNAL, calls for some remarks from me, as my name is there used in a somewhat ambiguous connection. Dr. Batterbury states that "his attention was first called to this method of treatment last autumn by a patient suffering from phthisis who had found great relief from the inhalation of a solution of carbolic acid through an inhaler recommended to him by Dr. von Messing of Meran in the Southern Tyrol". He next describes the inhalation-respirator, sent him from Meran, and which he very truthfully says "appears to resemble almost exactly the respirator recommended by Dr. Sinclair Coghill, and figured in the JOURNAL of May 28th". He then quotes Dr. Messing's directions for the use of the instrument, who also says, "I have been using it for about five years". In the first place, I can assure Dr. Batterbury that it is generally known to those who are keeping themselves abreast of the subject, that the treatment of lung-diseases by the inhalation of antiseptic solutions has long since ceased to be a therapeutic novelty in England, and is by no means confined to this country, as the foreign and colonial medical journals of the last five years or so have borne ample testimony. Dr. Batterbury has, therefore, been singularly unfortunate in only deriving his first knowledge of this mode of treatment so late as last October, and then from so remote a source as the Southern Tyrol. After conducting an extensive series of experiments both in hospital and private practice for more than a year, I published my first communication on Antiseptic Inhalation in Pulmonary Disease in the *Lancet* of October 20th, 1877, coinciding singularly as regards date with Dr. von Messing's "about five years" experience of this mode of treatment. The coincidence is still more remarkable, as Dr. Batterbury's description of the inhalation-respirator is absolutely identical with the description of my own instrument given in the above paper. And, still further, Dr. von Messing's instructions as to the mode of using it, especially the importance of inhaling through the apparatus and exhaling through the nose, are exactly the same as I then laid down.

I regard with great satisfaction that I was the first to make the antiseptic treatment of lung-disease the subject of systematic experiment, and to publish the results of my observations. I am therefore, not unnaturally, jealous of any attempt to attribute to others any merit that may belong to me. I am convinced the antiseptic treatment of internal diseases, especially lung-affections—still in its infancy—has a great and immediate future; and now that it has been taken up so widely and enthusiastically, and is yielding such good results in able hands, I am sure its further development will be rapid and satisfactory.

I hope I have only to invite Dr. Batterbury's attention to these remarks to be at once absolved by that gentleman from the insinuation, I am sure unintentional, that I derived any inspiration on the subject of pulmonary antiseptics from Dr. von Messing; and that I may fairly call upon him to ask his friend at Meran whence he derived the idea of the inhalation-respirator about five years ago.

J. G. SINCLAIR COGHILL, St. Catherine's House, Ventnor.

SKELETON RESPIRATOR FOR ANTISEPTICS.

THE local antiseptic treatment of phthisis has now become so well established in favour, that it is important to discover the best method of carrying it out. At present there are several different forms of antiseptic respirators in use, differing indeed in detail, but agreeing in the common fault of retaining too much of the character of the ordinary respirator.

The evil of this is apparent. A respirator, pure and simple, is used to filter and warm the air before it is breathed, and with these advantages it has counterbalancing disadvantages, such as sometimes overheating the air, and retaining respired air in the vicinity of the mouth, causing it to be again drawn into the lungs.

In order to overcome this latter difficulty, patients are often desired to inspire through the mouth and expire through the nose; and this would no doubt be efficacious if it could be carried out, but it is difficult to do, and apt, at best, not to be done continuously. It is of course impossible to do it during sleep.

The respirator I have found best for antiseptic purposes may be called a "skeleton respirator". It is made simply and cheaply. It consists of an oval of wire measuring four inches and a half in its long diameter, and one and three-quarter inches in its short diameter. This is bowed up one and a quarter inches in the middle, and fits round the mouth, one wire going over the upper lip, the other under the lower lip; the ends of the oval rest on the cheeks. From the wires of the oval as they pass the corners of the mouth four wires spring out, two at each side of the mouth, one being above and the other below. These wires are an inch long, and support a shallow cage capable of holding a double fold of lint measuring two and a half inches by one inch. The cage is formed of two light wire screens closing with a spring, the wires of the front screen being perpendicular, and those of the posterior screen horizontal.

The advantages of this respirator are, that it does not cause the inhalation of rebreathed air (which if not a cause of phthisis is certainly an accelerator). It does not heat the air. The lint seldom requires renewing or charging. It can be worn day and night without causing any oppression of breathing. It allows of the inhalation of pure air charged to any desired extent with the vapour of carbolic acid. The lint can be dipped at first in carbolic acid solution 1:30; afterwards in a more dilute solution 1:50. Or, carbolic acid and collodion may be mixed in equal portions, and two or three drops of the mixture be placed on the lint. Other antiseptics can of course be also used.

E. MACDOWEL COSGRAVE, M.D.

CLINICAL MEMORANDA.

A SOURCE OF INFECTION.

ON September 17th, 1880, I was telegraphed for by Mrs. W., residing in Chelsea. I found her exceedingly weak, suffering from intense mental depression, and from illusions; and pregnant for the first time, though she had been married for several years. She mistook her cat for the devil, and conceived a violent dislike and disgust for her husband. Under treatment, she rapidly improved, though her natural affection for her husband did not return until after her child was born. On December 8th I delivered her, with forceps, of a large female child, after a rather severe labour, owing to the great size of the head. The mother and child did well until the third day, when the temperature of the former rose to 103.3°, and was followed by severe headache, pain in the abdomen, and delirium. A profuse eruption broke out on the eighth day, and the temperature advanced to above 105°. On the eleventh day, she was apparently sinking; unconsciousness, and rigidity of the masseter muscles, being present for a few hours. On the fourteenth day, there was a decided improvement; and from this time she gradually, though interruptedly, improved, and eventually made a good recovery. During her illness, quinine in large doses, opium, digitalis, and ammonia, were freely administered; cutaneous injections of morphia, vaginal and uterine injections of permanganate of potash, nourishing and stimulating enemata (during unconsciousness), and poultices, were also resorted to.

I was naturally anxious to discover the source of the infection, as that appeared to be a matter of great importance. I felt satisfied that I was not the cause, having taken every precaution to ensure perfect cleanliness, and having been exposed to no poison. Antiseptics were freely used about the house. No case of fever had occurred in the immediate neighbourhood, and no person convalescent from any zymotic disease had visited the patient. After much trouble, it was discovered that her laundress lived in a hot-bed of scarlatina; and that she had washed the linen, including the diapers, worn by the patient during and after her confinement.

There are two points of interest in this case:

1. The condition of the patient prior to her confinement, which seems to support the views expressed by Mr. Blenkarne (in the *BRITISH MEDICAL JOURNAL*, February 1st, 1879), who considers that the primary cause of puerperal fever exists within the patient;

2. The fact of being able to trace it to its immediate origin.

I think the above history certainly suggests the wisdom of Government inspection of all premises used as laundries.

W. CULVER JAMES, M.D., Kensington.

THE celebrated chemist, Professor Bunsen of Heidelberg, celebrated the fiftieth anniversary of his doctorate on October 17th. On the occasion, the title of "Efficent Privy Counsellor", with the prefix of "Excellency", was conferred on him by the Grand Duke of Baden.

A CENTENARIAN.—It is reported from Charkow, that a woman named Ssansparoff has recently died there at the age of 137.