

2. To promote, and, as far as possible, to secure the appointment of competent public analysts.

3. To improve the processes for the detection and quantitative estimation of adulterations, and to secure uniformity in the statement of the results by holding periodical meetings for the reading and discussion of original papers on chemical and microscopical analysis, especially with reference to the detection of adulteration.

This association, under the name of the Society of Public Analysts, is now fully organised, and we are glad to find that Professor Redwood has been elected its first president, with Hassall and Wanklyn as vice-presidents, Dr. Stevenson as treasurer, and Messrs. Heisch and Wigner as secretaries. With these experienced analysts at the head of the Society, we have no doubt that much good will result from the association, which already includes the greater part of those officially appointed as analysts throughout the country. One of the first duties the Society has undertaken has been to draw up a definition of adulteration, or, rather, to attempt to indicate what adulterated articles of food, drink, and drugs are. It does not appear, however, that the committee who undertook the task has been very successful, and the proposed definition, which failed to satisfy the president and several of the members, has been referred to the council for further consideration and amendment.

### MEDICO-PSYCHOLOGICAL ASSOCIATION.

SOME of the descendants of William and Samuel Tuke (the former of whom proposed the establishment of the York Retreat of 1792, and the latter wrote the "Description" of the humane system of treatment commenced there) having placed at the disposal of the Medico-Psychological Association the sum of one hundred guineas, the Association offers a prize of this amount for "the best series of original cases and commentary, illustrative of the somatic etiology of various forms of insanity, accompanied, when possible, in fatal cases, by reports of post-mortem examinations and microscopical preparations—their bearing on the symptoms being pointed out." Cases not seen by the writer may be cited, but must be distinguished from those actually witnessed by himself.

The W. and S. Tuke Prize is open to all without restriction as to country, profession, &c., but the right is reserved to withhold it, should there be no essay of sufficient merit. Essays, to be written in English, and not in the author's handwriting, to be sent with a sealed envelope, bearing the motto of the essay, and containing the name of the writer, to Dr. Rhys Williams, Bethlem Hospital, London, not later than June 30th, 1876. The microscopical preparations, but not the essay, to belong to the Association.

### THE DANGER OF ANÆSTHETICS.

*To the Editor of THE LANCET.*

SIR,—The danger of chloroform and comparative safety of ether have been fitly brought to notice by Mr. George Pollock's letter in THE LANCET of last week.

I quite agree with him in regarding ether as much less dangerous than chloroform as they are generally given; for although I feel as confident in giving a proportion of thirty-three minims of chloroform to a thousand inches of air, as I should in giving ether, I have seldom given a stronger dose without noticing that it caused too much depression of the heart's action. Even this proportion, if inhaled by several deep inspirations, is liable to cause such depression, that if the pulse were not kept under observation, and the chloroform removed or diminished, it might, I believe, cause death. It is, I think, greatly to the credit of the profession that deaths from chloroform are not more frequent, for besides its liability to cause choking and apnoea, which are remediable, it may produce total arrest of the heart's action, which is not so.

The mixture termed "bichloride of methylene" is never sold without containing a considerable quantity of chloroform, and as it is much less volatile than the other ingredients, it escapes less readily. A bottle not very well stopped, or frequently opened, will contain an increasing proportion of

chloroform. A flannel used for several patients without being dried will have a larger proportion of chloroform than at first. Mixtures of ether and chloroform would long since have been favourite anæsthetics but for this circumstance. It is obvious to all that we cannot safely give strong chloroform vapour as we can ether, and therefore the larger the quantity of chloroform in the mixture the greater the need of caution.

I am not aware of the evidence that "methylene bichloride" is safer than chloroform. Considering that chloroform is found in almost every surgery and druggist's shop in the country, and that the methylene is both expensive and, on account of its volatility, a great deal wasted, I think the number of patients who have inhaled it must be very small compared with those that have taken chloroform.

Ether is so much less liable to arrest the movement of the heart, that if there were not some serious objection to its use, chloroform would not have been so quickly established in its place. The excitement of a small quantity—the choking produced by its free use, and the subsequent intoxication are the chief reasons against it. These may be almost entirely got rid of by improved methods of administration. I have tried many ways of giving ether, but have always found more resistance to breathing it than chloroform until I made use of nitrous oxide to render the patient partially unconscious, and to assist the action of the ether.

Of nitrous oxide I think it may be said that it is the most pleasant of our anæsthetics, that although it destroys animal life, it always stops the breathing some time before it stops the heart, and that if the chest is moved enough to admit a very little air into the lungs, natural breathing returns more quickly than when it ceases from other causes. It is very rapid in its action, especially on children, and for tenotomy, reducing dislocations, moving stiff joints, and extracting teeth, it is unequalled. But it is not fitted for operations that require that the patient should be still for five minutes. Convulsive twitchings and delirium of a boisterous character are apt to occur. The combination of gas with ether modifies beneficially the character of both.

My first plan was to give gas as usual, and when insensibility occurred, to apply the ether inhaler. It sometimes answered well; at others it produced much choking, or else allowed the patient to recover partially and struggle. My next plan was to turn the current of gas, and make it pass through a vessel of ether as soon as the patient was made unconscious by pure gas. This succeeded better so far as getting the first supply of ether into the system, but after it became necessary to admit air, I could not supply the bag with ether with sufficient accuracy. It answered well for increasing the anæsthesia of gas when a long dental operation had to be performed, but for surgical operations generally it was not satisfactory.

The plan I now adopt is this: I give nitrous oxide only, at first, and by degrees; without removing the face-piece, I turn a stop-cock, which allows a portion of gas, during expiration, to pass through a vessel containing ether, into an india-rubber bag, exactly like the supplemental bag: at the next inspiration this gas returns, bringing with it a portion of ether vapour, and mixes with the pure gas coming from the gas-bag. As the way to the ether is opened, the way to the gas-bag is closed. As soon as the ether begins to be supplied the tap of the gas-bottle may be screwed tightly, and the escape-valve closed.

In turning on the supply of ether, I watch for signs of its irritating the throat, and if it excites coughing or swallowing, I turn back the ether, to lessen its pungency.

The patient is usually ready for the operator in sixty seconds; if any air gets between the face-piece it may require two or three minutes. As soon as the least stertor is heard, or any convulsive twitchings of the limbs is visible, I cautiously admit a little air, and keep supplying as much ether as I can without exciting cough. After about two minutes I remove the face-piece every fifth or sixth inspiration, unless, on account of air getting under the face-piece, the patient remains in a satisfactory state of coma without it. After a certain amount of ether has been taken, the inhaler may be held so lightly as to admit a considerable quantity of air under the face-piece, but it is not often well to remove the inhaler altogether till the end of the operation.

On recovery, although there is usually some excitement, and occasionally hysterical symptoms, they pass away the sooner because there is less ether in the body to be thrown off.

I rarely notice the tracheal rhonchus which is common

when etherisation is kept up for as long as a quarter of an hour in the usual way. The instrument was made by Mayer and Meltzer.

Those who have the gas inhaler with supplemental bag, which I introduced six years ago, will find a substitute for this apparatus by merely putting several pieces of sponge into the supplemental bag and pouring two or three ounces of ether into them. The material of this bag should be etherised india-rubber. Of course, it must be so arranged that liquid ether cannot be drawn into the face-piece.

There are few operations that this instrument is not suited for, where the head of the patient is in such a position that the nose and mouth can be covered over by the face-piece. In some delicate operations upon the eye I should still prefer chloroform, as it causes less bleeding, and in operations about the mouth and nose I should give ether freely at first, and then give chloroform during the operation, if it was one of long duration. The best way of giving chloroform in these difficult cases is beyond the scope of the present letter.

I have given ether after gas in more than 900 cases, and in more than 700 I have used this apparatus. The majority have been dental cases too prolonged for the use of gas alone, but they include all the most severe surgical operations, and some of suspected fatty degeneration of the heart. No death occurred. I have not wanted to draw forward the tongue.

I resorted to artificial respiration twice: in one of these cases sickness followed, but the other recovered better than from a full dose of chloroform. I have also compressed the sternum with one hand on three or four occasions, when I thought the breathing ineffective. Vomiting is rare, unless when food has been taken within four or five hours. When it has happened it has been in no instance a source of danger.

Yours, &c.,

Cavendish-place, Cavendish-square.

JOSEPH T. CLOVER.

## PARIS.

(From our own Correspondent.)

### INCINERATION OF THE WIFE OF A MEDICAL MAN AT DRESDEN.

A RECENT number of a German medical journal gives the following picturesque description of a scene of cremation at Dresden. The body to be burnt was that of a young woman of twenty-three, the wife of a medical man, who during her life had expressed her determined wish to be reduced to ashes after death. Partly in a spirit of scientific observation and partly through a desire to ascertain the perfect organization of the measures employed for cremation, a company of savants, medical men, and official authorities of Dresden had met, with the permission of the friends of the deceased, to assist at the ceremony. In the midst of Siemens' manufactory had been erected a sort of funereal chamber, profusely ornamented with flowers, and in the centre of which was to be seen the coffin of the deceased. After a short and appropriate allocution from Siemens himself, the clergy having refused to attend, the body was pushed into the oven, and the iron door of the oven closed. A current of air, heated to the utmost degree, was let into the oven, and enveloped the delicate body of the woman, as could be seen through the iron gratings, with waves of fire vibrating distinctly and burning with a crimson light. It was not a thick smoking flame, causing swelling and distension of the body, but a real process of desiccation, extraordinarily rapid, producing evaporation of the chemically combined water, then heating the body, causing it to become red hot and afterwards white hot, and finally to fall to ashes. In all this there was nothing offensive to the smell or hearing. There was nothing in all that was seen through the iron gratings to shock the feelings of the woman's friends, except perhaps the unusual sight of a human body being reduced to ashes. In a short space of time the whole process, during which the liver and lungs seemed especially to resist, was terminated, and yesterday the ashes were gathered with suitable solemnity and confided to an urn.

### INTRODUCTION OF WOMEN INTO THE PROFESSION.

A few days ago a special commission of Inspectors of the University sat in the Sorbonne for the purpose of examining candidates and granting the degree of capacity necessary for entering the Schools of Medicine and Pharmacy. Out of

thirty-six candidates ten only were admitted. Amongst these latter was a Madame Astié, the wife of a well-known practitioner of the Faubourg St. Germain. She had already gained reputation in the world of arts by the publication of several musical compositions under the name of Marie de Valsayres. One of the tests was a critical appreciation of the characters of Molière's *Misanthrope*; and it must have been a pleasure of a new kind, remarks a contemporary, to hear the character of the great coquette *Célimène* discussed by a clever woman.

At one of the last sittings of the Examiners of the Montpellier School of Medicine and Pharmacy, a Madame André was declared competent, and got a diploma qualifying her to practise pharmacy in France.

### HEALTH OF PARIS.

Notwithstanding the constant shower of snow, and most changeable weather of the last fortnight, the health of Paris may be considered to be at present excellent, and the rate of mortality very low compared to that of London and several of the European capitals. The number of deaths mentioned in the last weekly bulletin of the municipality was 803; that for the preceding week (ending December 18th) was 815. Of course, chest affections are especially prevalent. The last death bill mentions 42 cases of bronchitis and 78 of pneumonia.

### ILLNESS OF DISTINGUISHED FRENCHMEN.

Two well-known Paris figures, Emile Pereire, the financier, and Louis Veuillot, the clerical polemist, are at present bed-ridden with bronchitis and asthma. The state of M. Emile Pereire was very alarming last week, but has improved since. General Faidherbe, the commander of the army of the north during the last war, is also suffering badly from attacks of intermittent fever, which disease he contracted during his prolonged stay in Africa as Governor of the French possessions in Senegal. The Prefect of the Seine, M. Ferdinand Duval, who had been ailing recently, through rather severe injury which he sustained in the knee from a fall on the Luxembourg staircase, is now better. The knee had been very dropsical.

### PROSCRIPTION OF MEDICAL MEN.

According to the *Aerztliches Intelligenz-Blatt* of Bavaria, an Agram contemporary of the "Obzor," has bethought itself of adding quite a new and interesting feature to its columns. The novelty consists in the publication of all the cases of death in Agram, with the names of the medical men who attended each case facing those of the deceased. The Bavarian medical journal expresses great indignation at this feat of low journalism, and qualifies it as a proscription of medical men, which title I have used for this paragraph.

### DISTRIBUTION OF PRIZES TO THE HOUSE SURGEONS AND CLINICAL CLERKS OF THE PARIS HOSPITALS.

Yesterday the Assistance Publique delivered its prizes to the candidates who had been successful in the various *concours* of this year for the house-surgeonship and dressership of the Paris Hospitals. The gold medal for the *concours* between all the house-surgeons was given to M. Campenon (of la Charité), and the silver medal to M. Homolle (of the Enfants Malades). The candidates had to treat in writing of the following questions:—Anatomy and physiology of the pulmonary lobule; differential diagnosis of the various kinds of pneumonia. Two oral questions had also been put to the candidates successively: Diagnostic value of running from the ear in fractures of the skull; and diagnostic value of contraction. A prize, consisting of books and a surgical bag, was also given to the clinical clerk named first on the list of house-surgeons for this year. Finally the names of thirty-two candidates who had successfully competed for the house-surgeonship this year were proclaimed. The ceremony took place in the large amphitheatre of the Assistance Publique, and was presided over by the director, M. Nervaux.

Since yesterday a good portion of Paris is provided with the pure waters of the Vannes, brought from a distance through a system of immense iron pipes. The day before yesterday took place the final and critical experiment of the filling of the large reservoirs of Montsouris. It proved successful. The waters reached the reservoirs quickly, and filled them up in the required time. The consequence was the distribution of the Vannes waters to Paris on the next day.

Baron Nathaniel de Rothschild has made a present to the Israelitish Hospital of Vienna of the furniture of the room in which his father, Baron Anselm, died. At the same time he has established a foundation fund of 8000 florins, the interest