

form, that it is not introduced gradually into the system, but at once. Although experiments have shown that small doses of chloral have little influence on the circulation, Dr. Liebreich advises caution as to its use in heart-disease. In trismus and tetanus larger doses are indicated, as small quantities do not produce the necessary action on the spinal cord. Hydrate of chloral has been found to act beneficially in a number of cases of puerperal convulsions; and Dr. Liebreich is disposed to explain this by accepting Frerichs' theory, that the convulsive attacks are connected with the transformations of urea into urate of ammonia, and by supposing that, besides the production of chloroform, there is a formation of hydrochloric acid which neutralizes the ammonia. Among other diseases in which there has been a general agreement of opinion as to the beneficial effects of hydrate of chloral, Dr. Liebreich mentions senile insomnia, delirium tremens, nervous asthma, chorea, dental convulsions in children, sea-sickness, etc.—*Brit. Med. Journal*, March 2, 1872.

7. *The Calomel Vapour Bath*.—MR. HENRY LEE made a communication to the Medical Society of London (Jan. 29, 1872) on some cautions to be observed in the use of calomel vapour baths. He had introduced calomel baths to the notice of the profession; and before doing so he had laboured to find out the cause of failure of the cinnabar and gray oxide of mercury. Cinnabar was decomposed by heat, and gave off sulphurous acid, which irritated the lungs. The gray oxide was decomposed, and, absorbing oxygen, became the binocide, and acted more powerfully. These remedies acted sometimes with small, sometimes with great, effect. Calomel, when used with water as he recommended, was, he thought, perfect; the skin was acted upon and the lungs were not irritated. The caution given to use water with the bath had been neglected in some quarters. During the fumigation with calomel, hydrochloric acid was given off, which was very irritating to the lungs; but no bad results followed if water were used. A young woman in good health and well nourished was suffering from a syphilitic ulcer of the throat. Twenty grains of calomel were volatilized in a teapot (without water) and inhaled. The skin suddenly became cold and livid, the lips blue, and the pulse small. The woman died, and at the necropsy the internal organs were found healthy, but the lungs were emphysematous, and there was effusion into them. A man inhaled thirty grains of calomel from a teapot for four nights for the cure of a hoarseness which had lasted two years, and had resisted a great variety of treatment. The hoarseness was cured without salivation, but the man had suffered ever since from a cough and pain in the chest. The lungs were not diseased, and no tubercle was present.—The President asked Mr. Lee if he had met with any untoward results after his treatment with the bath? What recommendation did he give to those about to use it?—Mr. Lee had not seen bad results except from pre-existing disease—old cases of mercurialization or disease of the bones. He did not salivate, but produced a slight tenderness of the gums. He used an apparatus of tin, with a tray for the calomel and a gutter for the water, a spirit-lamp to burn an ounce of spirit, half a drachm of calomel, a stool or chair, and a cloak. The calomel was sublimed and deposited on the skin. A little of the vapour was inhaled from time to time. The patient was ordered to sleep in the cloak. In four or five nights the gums were affected. In the case of one patient, two successive baths produced tender gums. Substances likely to produce diarrhoea were to be avoided.—*British Medical Journal*, February 24, 1872.

8. *Crystallized Digitaline*.—M. BEIGNET, in a report to the French Academy of Medicine, made January 23, on the essays sent for competition for the Orfila Prize, announces that the successful candidate (whose name is withheld until the time for the official declaration arrives) has made a discovery likely to be of very great utility in therapeutics and physiology. It is the production of crystallized "digitaline" in a state of absolute purity. The product has been submitted to a rigorous examination by the Prize Committee, and the superiority of the procedure adopted for the isolation of this active principle is admitted without hesitation. Splendid crystals resembling those of sulphate of quinia, and furnishing a bright emerald green when treated by hydrochloric

acid, were exhibited at the last meeting of the Academy, and greatly admired. The chemical perfection of the product has been confirmed by its physiological and therapeutical effects in the hands of MM. Vulpian and Marrotte. Its promptitude and intensity of action are far greater than is the case with the digitaline of Homolle and Quévenne—three milligrammes administered in twenty-four hours producing saturation and intolerance, and one milligramme daily being ill-supported by most patients, so that more than half this quantity cannot usually be given. It is evidently an agent of tremendous power, which will require great caution in its employment, and may prove a fearful weapon in the hands of the poisoner.—*Med. Times and Gaz.*, Feb. 3, 1872.

9. *Bichloride of Methylene*.—Mr. F. SEARLE adds his testimony in favour of this anæsthetic. In 1870 he administered it to more than 100 cases in the West of England Eye Infirmary, and has since used it in private practice. He has given it in all ages, from 6 months to 70 years, without a single cause for alarm, vomiting even being exceptional. It is important not to allow the patient to escape from its first influence, otherwise excitement ensues. (*Lancet*, May 27.) In Padua, bichloride of methylene has been employed for three years in the surgical clinic to the exclusion of ether and chloroform, being sent over from London by Messrs. Robin. Out of 108 operations performed under its influence, Dr. Rossi states that 52 patients slept tranquilly without any muscular agitation within from 1 to 5 minutes; 32 experienced slight excitement and became insensible in 8 or 10 minutes. Four only were violently agitated, and sleep was not induced from 15 to 20 minutes; 20 remained completely free from its influence even after 50 minutes of inhalation. Vomiting occurred in 8 instances. No other accident declared itself, and the liquid excited no cough, but slight lachrymation. The pulse and respiration were increased in frequency from the first, but soon returned to the normal state, and even fell below it. The face underwent no change of colour. (*Journ. de Pharm. et de Chim.*, Sept.) These results correspond in many particulars with those previously attained in England by Mr. Miall and Mr. Gaine, and this anæsthetic seems well worthy of future trial.

To the three deaths already recorded as happening under its use must now be added another from the Radcliffe Infirmary, Oxford. Bichloride of methylene was administered on a flannel bag to a woman, aged forty-four, who was about to undergo an operation for cancer of the breast. After two or three convulsive gasps the patient died, though the quantity administered was small.—*Dub. Journ. Med. Sci.*, Feb. 1872.

10. *Glycerine as a Solvent for Substances used in Subcutaneous Injection*.—At a late meeting of the K. K. Gesellschaft der Aerzte in Vienna, Dr. MORITZ ROSENTHAL, one of the *dozenten* in the Allgemeine Krankenhaus, advocated the use of glycerine as a medium for the solution of the various substances used for subcutaneous injection, and also exhibited specimens of such solutions. It is of the highest importance that the glycerine used be chemically pure, and free from all traces of fatty acids. By gradual elevation of temperature, the glycerine can be made to take up into solution a large number of certain alkaloïds—*e. g.*, chinin, morphin, curan, and also opium extract, and to retain them dissolved for, at all events, a year (this being the duration of the experiment) in a complete and clear solution. Certain other substances—*e. g.*, thein, caffeine, and preparations of iron, are, on the cooling of the solution, reprecipitated.

Of disulphate of chinin, twenty grains are soluble in one drachm of glycerine, this being in the proportion of 1 to 3. The same amount of the solvent will take up ten grains of muriate of morphia or of opium extract. Corrosive sublimate, of which five to six grains are soluble in one drachm of glycerine, must be diluted with water. One drachm of the solvent will take up only one grain of curare. The glycerine solutions of chinin, subcutaneously applied, were found of especial benefit in intermittents.

All of these solutions were stated to remain during the summer months perfectly pure and free from all traces of vegetable moulds.

In cases where the patient is very sensitive, these solutions can be diluted