

out. 38 hours after the operation he became comatose; the face lost its dusky hue and became suffused with a bright red flush. The breathing grew stertorous and the pupils, previously moderately dilated, now contracted. Death occurred 38½ hours after operation.

The post-mortem examination gave the following results. The operation wound was healthy. A bright cherry-red colouration of the skin was present over the right iliac region. The tonsils were of about the size of an almond. The circumvallate papillæ of the tongue were markedly hyperplastic. Adenoids were present in a moderate degree. Peyer's patches were very prominent, pale, and cedematous-looking. The solitary follicles were similarly prominent. The thymus weighed seven grammes. The spleen was of normal size. Many of the mesenteric glands were from a quarter to half an inch in length and a quarter of an inch thick; they were firm throughout. The thoracic glands were not enlarged. The lungs were of a bright cherry-red colour and hyperæmic, otherwise they were normal. The heart muscle was pale and flabby. There was no enlargement of the bronchial lymph glands. The liver weighed 16 ounces; it was large and of a uniform pale buff colour. It proved to be extremely fatty; the fatty change occurred evenly throughout the organ. The kidneys were pale and slightly enlarged. The capsules stripped readily; the organs were pale and softer than normal; sections showed marked cloudy swelling and desquamation of the cells of the tubules.

*Remarks.*—The case closely resembles those already reported both in symptoms and pathological findings. In two ways, however, it appears to differ. First, in the evidence of hyperplasia of the lymphatic tissues to the extent indicated; secondly, in the appearance of the blood, a bright cherry-red colour being very apparent in the lungs and over the skin area rendered hyperæmic by friction during preparation for operation. The first condition leads one to consider the possibility of a moderate degree of lymphatism acting as a predisposing factor in cases of delayed chloroform poisoning. The second condition leads to the suggestion of the possibility of chemical alteration of the blood, leading to the fatty changes observed in the organs. With regard to the colour of the face before death, Mr. Robert Campbell reports that of the three fatal cases recently described by him at the meeting of the Ulster Medical Society, "two presented an exceedingly good colour when other symptoms pointed to their condition being very serious. The lips in these cases were bright red." For the third case, before the cyanosis appeared the sister in charge had thought that in spite of the frequently reported vomiting there could not be anything very seriously wrong with the patient "as the colour was so good." The causal factors are no more definitely determined in this case than they have been in former ones, but, as accentuated in THE LANCET of Feb. 29th last, it is only by fully reporting these cases that any solution of the difficulty can be arrived at, limited as the observations may be in "these catastrophes occurring in the midst of routine work." There has been great stress laid on the finding of acetone, diacetic acid, and  $\beta$ -oxybutyric acid in the urine. The condition is often described as an "acid intoxication." The "acidosis" is by no means a constant feature and when it occurs it is more likely to be a symptom of the condition than a cause. If acetone is derived from fat or if from proteid, there is sufficient excess of the former or disintegration of the latter as certified post mortem to account for the appearance of  $\beta$ -oxybutyric acid or its derivatives in the urine in these cases. There is an intoxication but it remains qualified. In prophylaxis lies the avoidance of what seems the worst catastrophe that can happen to a surgeon or anæsthetist—viz., the rapid death after a successful and slight operation of an apparently normal child. The subject requires further investigation and I would suggest that exhaustive examination should be made of other members of the family. A case has been reported of death occurring in the case of two children, brothers, from chloroform poisoning. The child whose case I have reported has a brother two years older. He closely resembles the younger one in appearance, complexion, and texture. Perhaps if thoroughly investigated by a skilled pathologist and physiologist some abnormalities of blood or metabolism might be found which would pave the way to avoidance of future accidents.

Rome.

## A CASE OF ACUTE CANTHARIDES POISONING.

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A MAN, aged 58 years, was admitted to Johannesburg Hospital on June 30th, under the care of Mr. T. M. Frood, suffering from breathlessness, giddiness, and weakness, these symptoms having manifested themselves three months previously. He had had no previous illnesses and the family history afforded no clue. The physical examination proved negative. The temperature was normal, the pulse was 80, and the respirations were 20 per minute. The arteries at the wrist were slightly thickened. The heart appeared normal. The urine was perfectly clear and of a light amber colour; its specific gravity was 1008, it yielded no sediment, gave an acid reaction with litmus as indicator, and proved to be entirely free from albumin and sugar.

On July 9th the patient complained of pain in the left side and it was noticed that he had developed a cough meanwhile. There was present in addition a profuse watery and hæmorrhagic exudate. The physical signs were those indicative of fibrinous or plastic pleurisy and were confined to the base of the lung. The area of friction was delineated with a blue chalk pencil and it was resolved to apply cantharides as a counter-irritant. Unfortunately, a misconception arose as to how this was to be carried into effect and instead of a blister the size of a shilling being applied the whole of the surface outlined (measuring 7 by 2½ inches) was painted over with liquor epispasticus (B.P.). One hour later the first symptoms of strangury appeared—viz., an urgent desire to micturate, associated with the passage of blood-stained urine in small quantities and at frequent intervals of about five minutes. A slight degree of headache was noted, the pulse ran up to 120 a minute, and the patient broke out into a profuse perspiration. The pain, which was referred to the distal end of the penis, was intense. The abdomen was soft and yielding and there was a marked absence of tenderness in the loins. A fourth of a grain of morphine gave relief from pain. The amount of urine passed during the first 24 hours was 28 ounces. The specific gravity was 1019 and the reaction to litmus proved acid. Blood and albumin were present, the latter being estimated at 7 grammes per litre. The microscopic sediment consisted largely of mucus with numerous red and white blood corpuscles and kidney cells (large round cells, with vesicular nuclei and granular protoplasm twice to four times the diameter of a red blood corpuscle.)

On the following day the patient passed a normal quantity of urine (51 ounces) but still complained of burning pain with micturition. The following facts were demonstrated by analysis: specific gravity 1017; reaction strongly acid; ozonic ether test, negative; albumin, ½ gramme per litre. The centrifugised deposit was found to contain mucous corpuscles, numerous leucocytes, and red blood cells, the latter in chains and clusters of from 40 to 50 or 60, columnar epithelial cells from the urethra, epithelium from the bladder, altered by the action of urine, and a few granular tube-casts. On the fourth day there was the merest trace of albumin present, the specific gravity was rather less, 1010; faintly degenerated renal epithelial cells and leucocytes were still visible, but the red elements of the blood were absent altogether. The urine measured 52 ounces in 24 hours. On the fifth day spermatozoa were included, but their numbers were too small to be taken into consideration. The symptoms meanwhile had entirely abated. From the fifth day onwards the urine bore no traces of the previous engorgement.

Dixon Mann in treating of animal poisoning observes that "severe symptoms of poisoning have occurred from the external use of cantharides," and Tirard confirms this by stating that cantharides *may in exceptional cases* cause albuminuria and hæmaturia when applied to large surfaces of the skin. This it does by a direct action on the kidney itself. In Lauder Brunton's textbook of "Pharmacology, Therapeutics, and Materia Medica" after the injection of cantharides the kidney is described as congested and swollen and on microscopic examination it is found that the alterations begin first in the

glomeruli and convoluted tubules and gradually extend to the straight tubules. These changes consist in intense congestion, especially in the glomeruli, with increased tension of blood in the vessels. Then the liquid constituents of the blood pass through the vascular walls, carrying along with them granules, red corpuscles, and white corpuscles. This exudation then passes from the glomerulus along the whole length of the tubules, the epithelium of which next becomes changed, the cells which line them swelling up, multiplying and becoming modified in form, migration of leucocytes also occurring.

Lastly, as is well known, the drug is credited with possessing aphrodisiac properties and, according to Hale White, "In severe cases of poisoning, there may be greatly increased sexual desire, numerous seminal emissions, violent priapism, with swelling and heat of the genital organs." It is only necessary to add that these effects were certainly not produced in the case under consideration. The same author observes that "even if the drug is injected subcutaneously it is liable to produce severe gastro-intestinal irritation, the patient suffering from abdominal pain, diarrhoea and vomiting, showing that it is excreted by the gastro-intestinal mucous membrane." But probably these effects are more commonly observed when the drug is administered internally.

In conclusion, I beg to state that I am indebted to Mr. Frood, honorary physician to the Johannesburg Hospital, for permission to publish this case.

Johannesburg.

## Reviews and Notices of Books.

*L'Assistance des Enfants Anormaux et de ses Resultats au Point de Vue social. (Special Institutions for Abnormal Children and their Results from a Social Point of View.)*

By MAURICE ROYER, M.D., Ancien Interne de l'Hôpital du Perpétuel Secours et de la Fondation Vallée (Hospice de Bicêtre). Paris: G. Jacques. 1907. Pp. 149. Price 8 francs.

THIS work is of the nature of a plea for increased facilities for the treatment and education of children of defective mentality in France. Dr. Royer arraigns and laments the present wholly inadequate provision made for the care and protection of feeble-minded children and in doing so he gives an admirably lucid and concise account of the methods instituted at the Bicêtre by Dr. Bourneville and of the excellent results obtained. Dr. Bourneville has insisted on the desirability of commencing education at the earliest possible moment, that is on the first signs of feeble-mindedness displaying themselves, showing how it is impossible to class the patients at this early age into curable and incurable. Many a child whose physiognomy and physical aspect appeared likely to exhibit rapid improvement took, in fact, longer to educate than another of more unfavourable appearance.

In the case of a complete idiot, whose existence is a purely vegetative one, the body is at first submitted to a course of passive movements involving flexion and extension of the limbs and to massage. After each application of these movements the patient is placed in a swing in which his legs project slightly beyond the board which supports them. The swing is then set in motion and at the end of the forward swing the feet of the child come into gentle contact with an upright spring board, the object being to give the child a sensation of contact with the outside world. After a time the patient is taught to stand, in the first instance with the help of parallel bars. Afterwards, for the purpose of inculcating coördination of movement preparatory to walking, the child, with the help of nurses, is taught to place his feet on the large flat rungs of a ladder laid on the floor, and later still he is left to himself in a go-cart. After some practice in this way the patient is taught to mount and to descend stairs.

At this stage schooling is commenced, each scholar likely to be incontinent sitting on a seat with a central hole and

below it a suitable receptacle. The education of the hand is now undertaken. The child is taught to grasp various objects, such as the rungs of rope ladders, small sticks, flat pieces of wood, and balls. By these means the sense of touch is educated, while sensations of heat and cold are taught by plunging the hands into water at varying temperatures. As time goes on the movements of the hand are made more complex and such manœuvres as buttoning and unbuttoning, tying and untying knots, and sewing are practised. Now, too, dolls are dressed and undressed and the child learns to handle a knife and fork. At this stage the child passes to more abstract ideas and, handling various objects, is taught to regard their length, breadth, solidity, and colour. The appreciation of pictures and what they mean is followed by lessons in reading and writing. Concurrently with intellectual education the body is developed with the aid of gymnastics, gardening, dancing, and fencing. Lastly, some trade is taught and Dr. Royer recounts with legitimate pride many cases in which the apparently hopeless after passing through the Bicêtre have gone out into the world as useful citizens.

In another chapter of his book the author sets forth at length the burden that the feeble-minded child is bound to be in his own home and the bad effect that he is likely to have upon other children, the hopelessness of endeavouring to cope with such cases in ordinary schools, and their inevitable tendency to drift into irremediable conditions or to fall eventually into the hands of the police and in any case to become a source of much expense to the community. Dr. Royer strongly urges the foundation of "asylum schools" for the epileptic, the idiotic, and the perverse.

The book is well worth reading as an interesting exposition of present-day methods of the education of the feeble-minded and as a plea for their further development.

*Memories of Edmund Symes-Thompson, M.D., F.R.C.P., a Follower of St. Luke.* By his WIFE. Preface by the BISHOP of WAKEFIELD. London: Elliot Stock. 1908. Pp. 195. Price 3s. 6d.

AS a record of the life of a man of considerable personality and of tireless activity, and of one who achieved success in the practice of his profession and at the same time spared time and energy for the advancement of charitable objects and for the enrichment of his mind, these memories of Dr. Edmund Symes-Thompson are of considerable interest. They show the possibility of possessing outside interests coincidently with the execution of engrossing professional labours. Dr. Symes-Thompson was the son of a distinguished physician, Dr. Theophilus Thompson, F.R.S., one of the founders of the Brompton Hospital, to which he himself was so long attached, and he had the advantage of his father's teaching and of working along similar lines. After a distinguished career as a student he was early appointed an assistant physician to King's College Hospital and to Brompton Hospital for Consumption and Diseases of the Chest, a specialty to which he devoted his professional life. He was also well known as the Gresham Professor of Physic, a post which he held from 1866 until his death in 1906, a period during which he delivered many series of lectures on medical subjects and scientific questions relating to them. He had a fertile mind and was singularly adept at presenting the varied knowledge acquired by himself in his travels and by his studies in intelligible and interesting form. Details are given in these memories of his writings which were numerous, of his many professional appointments and services, and of his work in regard to life assurance and to climates and health resorts.

It is, however, more especially with the personal character of the man that these memories deal. A man of wide sympathies, deep convictions, and strongly marked religious