

of inosite pentaphosphoric acid. The results of the experiments with normal and polyneuritic pigeons, normal and scorbutic guinea-pigs, and, more important still, with children presenting evidence of malnutrition, marasmus, and rickets, showed a marked acceleration in the rate of growth, particularly in the case of children. It seems established that all three vitamins were present in the preparation, and the authors attach importance to the calcium and phosphorus in the product, which they regard as having a beneficial action on the general metabolism, more particularly on bone and tooth formation. They assert that until such time as the vitamins shall have been isolated, and their chemical composition determined, the vitamin preparation which they have produced may be trusted to be effective as an accessory food factor. The investigation is being continued with the hope of isolating and determining the chemical composition of the vitamins. The chemist so far has found these entities elusive, but their importance should stimulate the hunt.

SUPRAPUBIC HÆMATOMA OF THE RECTUS MUSCLE.

IN the *Progrès Médical* of Jan. 18th, Dr. F. Cathelin has described an interesting injury which comes under the observation of French army surgeons—suprapubic hæmatoma of the rectus muscle in young horsemen. It is always produced in the same manner, but the diagnosis would be very difficult for a clinician whose attention had not been directed to the injury by a previous case. While director of the Urological Centre for the Fifth Region during the war, Dr. Cathelin had eight cases sent to him in a few months. The following are examples:—

A young cavalryman, while mounting his horse from the left side, felt a slight suprapubic pain which did not prevent him from continuing on duty on that and the following days. The pain reappeared on mounting, but did not continue when in the saddle. A hard, smooth, regular, painless swelling was found in the subumbilical half of the right rectus muscle. The swelling ceased sharply two fingers' breadth below the umbilicus, and at the lower end was lost in the pubic bone. The left rectus showed nothing abnormal. Recovery took place in a fortnight under rest in bed and hot fomentations. In another case a man felt a violent pain in the lower abdomen on mounting. He was able to continue a riding lesson, but suffered much during trotting and jumping. On the following day he was able to mount without pain, but in the evening, on vaulting, he felt a violent pain, which immobilised him. He maintained a stooping posture and could not straighten himself. On examination acute pain was felt on palpation and on the slightest movement at the external border of the left rectus muscle, extending from the pubic bone to five fingers' breadth below the umbilicus. On palpation puffiness and a hard and painful swelling of the size of a small orange was felt beneath the muscle. The swelling disappeared under the same treatment and in the same time as in the previous case.

In all the cases the ætiology was the same. The patients were young soldiers of the classes 16 and 17 in the first months of cavalry training. In jumping or vaulting they felt, on widely separating the legs, a slight pain in the lower abdomen, which sometimes prevented them from continuing the exercises. Usually there was no pain on palpation. The swelling was sometimes circumscribed, at other times diffuse, smooth, regular, and always unilateral. Its position beneath the muscle gave a sensation of depth. It was always at the lower

part of the rectus, generally on the left side. In spite of its suprapubic position vesical signs were always absent. The pathogenesis is explained by the fact that the aponeurosis surrounding the recti is absent posteriorly over the lower third where there is only a thin cellular layer, between which and the muscle run the epigastric vessels. The production of the hæmatoma has been attributed to several mechanisms: 1. Repeated impact of the abdominal wall against the pommel of the saddle in jumping on a horse without stirrups, which produces small muscular ruptures, the origin of a more important rupture during horse exercise. 2. Muscular rupture, such as occurs in sprain of the back or rupture of the tendo Achillis. Against this view is the almost complete absence of pain. 3. A tearing away of bone from the pubis at the attachment of the rectus. Again the absence of pain is against this view; so is the absence of ecchymosis. 4. The most probable hypothesis seems to be rupture of branches of the epigastric artery. It is well known how easily these branches are ruptured when the muscular fibres are separated to enlarge the incision for lateral laparotomy.

A NAVAL OFFICER ON CONDITIONS IN MERCHANT SHIPS.

EFFORTS were being made for some time before the war to improve living conditions for the crews of merchant ships. The Board of Trade was interested, its medical officers certainly were, and it was believed that ship-owners were to some extent conscious that their crews, including the stokers who fed the furnaces, wanted, and were entitled to, something better in the way of sanitation, including sleeping and feeding accommodation, than had been given them in the past. If anyone desires to see how the living accommodation for the firemen of a good-sized liner, in use as such in 1914, appeared to the eyes and other senses of an experienced officer in H.M. navy he will find full particulars in the closing chapter of a series of interesting articles in *Blackwood's Magazine* for February, 1920. The writer, Rear Admiral Boyle Somerville, describes the work of the Ninth Cruiser Squadron, with particular reference to a liner converted into a cruiser. What that work was, so far as the war was concerned, can be read in the articles referred to. With regard to the matter of the ship's equipment, as studied by the writer in connexion with the process of conversion, Admiral Somerville found much to disapprove of, but the "first and worst and rudest shock of all" came when he went the rounds of the living quarters allotted to the deck-hands and firemen of the ship's original crew in the routine of the first Sunday morning at sea. The quarters of a man-of-war's crew, as he observes, are not laid out in over-luxurious fashion. What he found in the way of darkness, lack of ventilation and sanitation, filth, and vermin in the fore-castle and the depths beneath it in his new command is told with breezy candour and with full particulars of the remedial steps immediately taken, including the washing out and sealing of the part of the ship previously used for sleeping in, and the throwing overboard of the abominations provided for bedding. After that decks, dismantled of the woodwork compartments which once had been cabins, but still equipped with baths, became the crew's living laces. The effect of what was done

in producing contented and orderly service, as well as the results of training under efficient stokers in the saving of coal, might usefully be considered by ship-owners and legislators interested in our seamen. Admiral Somerville's point, put shortly, is that training and decent treatment for firemen would pay for any immediate outlay involved, and that those who give conditions which only the dregs of the male population will accept only get that class to serve in their ships, to their own loss as well as to their discredit.

DENTAL CHANCRE.

OWING to the rarity nowadays of syphilitic infection arising from the use of unsterilised dental instruments, a case reported by Dr. Herman Goodman,¹ of New York, is of interest. The patient was an American officer, 32 years of age, who was married and had two healthy children. Ten to 14 days after extraction of a tooth by a civilian dentist an ulcer appeared at the site of the extraction. A Wassermann reaction taken at the time proved negative. The ulcer healed under local treatment, but recurred. About six weeks later there was a generalisation of the syphilitic infection, which was shown by inflammation of the jaws and ulceration about the right molars, bilateral swelling of the submaxillary glands, pharyngitis, and a positive Wassermann reaction. There were no lesions on the genitals. After three doses of arsenobenzol the symptoms disappeared and the Wassermann reaction became negative.

THE GENESIS OF THE MAUDSLEY HOSPITAL.

THE institution by the London County Council of a course of lectures and practical instruction at the Maudsley Neurological Hospital, in preparation for the Cambridge Diploma of Psychological Medicine, leads us to recall the initial impetus given to the scheme by Sir Frederick Mott. In the *Archives of Neurology* for 1907, writing of post-graduate teaching in medico-psychology and neuropathology, he said:—

A fruitful field of study in psychiatry would be those early cases of uncertifiable mental affection termed neurasthenia, psychasthenia, obsession, mild impulsive mania, melancholia, hysteria, and hypochondria, which in many instances are really the prodromal stages of a pronounced and permanent mental disorder. The poorer patients suffering with these conditions first come into the hands of the practitioner, the dispensary or infirmary doctor, and the out-patient physician at the general or special hospitals. The better class patients are sent by the practitioner to the neurologist; the generality of the poorer patients, and sometimes the better class patients, are regarded by the medical man who has had no training in psychology as of little medical interest (for such patients do not, as a rule, benefit by drugs), and he finds it a wearisome task to listen to their story, to ascertain their inborn tendencies, and to find out the truth of what has happened to account for their strange conduct indicative of their not feeling, thinking, and acting in accordance with the general usages of their social surroundings, and yet such patient may not be so anti-social as to be certifiable. Such cases are often in the hopeful and curable stage, and these, if studied carefully by trained medico-psychologists, could not fail to yield valuable results in regard to our knowledge of the causation, prevention, and cure of insanity. Moreover, when the cases are followed up systematically they would throw much light on prognosis in similar cases. The majority of cases which are admitted to the asylum have long passed the hopeful stage; still, there are a

certain number of early curable cases, and these, I maintain, would sometimes be much better if they had not been certified or sent to associate with chronic lunatics. Fortunate would be the community in which there was a fully equipped and well-organised psychiatric clinic, under the control of a university, and dedicated to the solution of such problems.

The scheme of the London County Council for Receiving Houses would probably include the establishment of an acute hospital for the investigation and treatment of curable mental cases, to which a clinic might with advantage be attached. Hereby post-graduate teaching would be encouraged, and the better knowledge and early treatment of insanity would certainly prove of great economic advantage. If suitable post-graduate training in medico-psychology and neuro-pathology were established, doubtless the universities and licensing bodies might be induced to establish a diploma, very much on the lines of the Diploma of Public Health, which has largely contributed to raise the science of public health to the high position it now holds, thus conferring an inestimable benefit on the nation.

The offer by Dr. Henry Maudsley of £30,000 to further precisely these aims was made to the Council on Feb. 18th, 1908, and there is no reason to doubt that Sir Frederick Mott's statement largely induced Dr. Maudsley to make his munificent offer.

POST-ANÆSTHETIC TOXÆMIA.

A RECENT inquest has directed attention once again to the obscure condition known as post-anæsthetic toxæmia, or, as it has been less precisely termed, "delayed chloroform poisoning." Chloroform is, we know, not the only, although it is the most usual, anæsthetic associated with these cases of persistent vomiting, restlessness, delirium, coma, and death. It was in the columns of THE LANCET in 1894 that the late Dr. Leonard Guthrie first directed attention in this country to a condition which had already been described on one or two occasions on the continent. Dr. Guthrie's description remains the best clinical picture of the symptoms exhibited by patients who suffer from post-anæsthetic toxæmia, nor has much knowledge been added to that which he gave us upon the post-mortem appearances in these cases. The association of acidosis with this condition had, however, not yet been recognised, and treatment, therefore, had not yet been designed, as it now has been, based upon the assumption that the symptoms are due to the faulty products of metabolism present in an organism that is suffering from acetonæmia or the state immediately precedent to this. Whether this supposition is correct or not, the use of glucose prior to operation, and bicarbonate if symptoms develop after, seems to have good clinical justification. The feature about this condition, which makes any explanation of it dependent upon the anæsthetic so difficult of comprehension, is the fact that in many instances the anæsthetic has been of extremely short duration, and in some the drug employed has been one of far less toxic power than chloroform. In the case recently recorded the operation lasted only a quarter of an hour, and was one that involved no hæmorrhage at all, being a manipulative procedure. Yet the post-mortem appearances were well marked and included the characteristic fatty infiltration of the liver described by Dr. Guthrie. It was the presence of this condition in patients who had succumbed within a day or two of operation that led Dr. Guthrie to suppose that a pre-existing faulty state of the liver

¹ New York Medical Journal, Jan. 31st, 1920.