

fractions of a cubic centimetre, and varies from 0·001 to 0·0001 cubic centimetre. It should only be employed in the absence of fever. Recently special preparations of this form of tuberculin have been employed for diagnostic purposes by the production of a local instead of a general reaction. Thus, the ophthalmic-reaction of Calmette is based on the use of a purified solution of "Old Tuberculin." Von Pirquet has shown that a specially prepared solution of "Old Tuberculin" may be used for vaccinating the arm or thigh; and Moro has advocated the use of an ointment of "Old Tuberculin" as a local diagnostic agent. New Tuberculin B.E. differs from New Tuberculin T.R. in containing a small proportion of the water-soluble toxins similar to those that are present in "Old Tuberculin." It is standardised to contain five milligrammes of dried tubercle bacilli in each cubic centimetre and is therefore half the strength in bacilli of New Tuberculin T.R. It is less often used than the latter and is given in similar doses which are reckoned in fractional parts of a milligramme of dried tubercle bacilli.

FACIO-SCAPULO-HUMERAL MYOPATHY.

PECULIAR interest attaches to the record, given by Professor Landouzy and M. Lortat-Jacob in *La Presse Médicale* of Feb. 27th, of a case of family facio-scapulo-humeral myopathy, type Landouzy-Déjérine, inasmuch as it concerns a patient whose condition served for the original description of this variety of myopathy published by Professor Landouzy 30 years ago. Within recent years there has been a distinct tendency in the direction of the simplification of the various forms of myopathy, and evidence has been brought forward to suggest the absence of any real distinction between myelopathic and myopathic muscular atrophies, so-called. The occurrence of spinal-cord changes in peroneal muscular atrophy, for instance, and in other progressive myopathies has led to the denial of the existence of any true muscular dystrophy. In any case, where both muscular and spinal changes have been remarked, their degree has been so commensurate as to render the determination of the seat of the primary lesion a matter of considerable difficulty. The nature of the pathological alterations in the muscles has been thought to facilitate the distinction of the two types, but even where these alterations have been of the myopathic type changes have been found in the cord. The patient whose case forms the subject of the above communication was one of two brothers who came under the notice of Professor Landouzy at the age of 17 years and who died from pulmonary tuberculosis in 1902, aged 45. He was under constant observation for almost 30 years. In his youth he presented the characteristic involvement of the muscles of the face and shoulder and upper arm which is distinguished as the facio-scapulo-humeral variety, and the disease slowly progressed until he was permanently crippled. For the last 17 years of his life he was confined to bed, unable to sit up, unable to do anything for himself except with the flexors of his fingers. At no time was fibrillation in the affected muscles observed, nor was cutaneous sensibility affected. Electric excitability was diminished in proportion to the degree of wasting of the muscles. At the necropsy a minute and painstaking dissection of the musculature was made and the skeleton was preserved and subsequently mounted. To the naked eye most of the muscles appeared simply as pale yellow fibrous sheets; those of the face could not be distinguished at all, even by the microscope; in the arms the flexors were of a pale rose tint; one of them, the flexor carpi ulnaris, was the solitary arm muscle unaffected. It is interesting to note this relative preservation of the flexors. Several of the muscles were yellow, with a few pink muscle bundles visible here and there. Microscopical examination showed that even in the

most degenerated muscles the pathological process was unequally distributed. The skeleton was thin and slender; the long bones were rarefied and the thorax and pelvis deformed. A series of beautiful radiographs illustrates the honeycombed and lace-like texture of the bones. But the remarkable fact remains to be noted that the cells of the anterior horns of the spinal cord, by Nissl's method, and of the bulbar centres, were, with few exceptions, perfectly normal, and this in spite of a progressive muscular disease of 30 years' duration. Similarly, the peripheral nerves appeared normal. Thus the original account of the disease as a true myopathic atrophy, without any change in the central or peripheral nervous systems, receives ample justification.

MEDICAL MEN AND PATIENTS' WILLS.

IN our issue of March 6th we made certain comments under the above heading upon a case then recently heard and settled before Mr. Justice Bigham. We have since ascertained that the facts before the court and connected with the settlement of the action did not justify all the words we published. In the circumstances we desire to retract the comments we made upon the subject. Especially do we desire to do this so far as those comments can possibly be read to reflect in any way upon the plaintiff in the case. Mr. Justice Bigham, in whose hands the terms of settlement were left, definitely pointed out that there was no reflection upon the plaintiff's character at all, and we are sorry if anyone read such a meaning into our words.

THE INFLUENCE OF HEREDITY AND ENVIRONMENT ON SIGHT.

THE Francis Galton Eugenics Laboratory at University College, London, which is doing such good work in many directions under the control of Professor Karl Pearson, has recently issued a "First Study of the Inheritance of Vision and of the Relative Influence of Heredity and Environment on Sight," by Miss Amy Barrington and Professor Karl Pearson. The paper is a mathematical inquiry founded upon various statistics, the chief of which are two communications by Dr. Adolf Steiger of Zürich on the corneal curvature and the Report on 1400 School Children issued by the Edinburgh Charity Organisation Society. Statistics derived from elementary schools in London and Glasgow have also been examined but afford less valuable material. We make no attempt to criticise the writers' arguments and calculations in detail, but we think that their general conclusions will be of interest. They find that there is no evidence whatever that overcrowded, poverty-stricken homes, or physically ill-conditioned or immoral parentages are *markedly* detrimental to the children's eyesight. There is no sufficient evidence that school environment has a deleterious effect on the eyesight of children. Though changes of vision occur during school years they hold that these are phases of one law of growth, a passage from hypermetropia to emmetropia and myopia of the eyes of "unstable stocks." They find ample evidence that refraction and keenness of vision are inherited characters, and that the degree of correlation between the eyesight of pairs of relatives is of a wholly different order to the correlation of eyesight with home environment. Intelligence, as judged by the teacher, is correlated with vision in only a moderate manner (0·16). We scarcely think that the data justify so strongly worded an *ex cathedra* statement as that made by the writers in conclusion. "The first thing is good stock, and the second thing is good stock, and the third thing is good stock, and when you have paid attention to these three things fit environment will keep your material

in good condition. No environmental or educational grindstone is of service unless the tool to be ground is of genuine steel—of tough race and tempered stock." The words are too sweeping.

ATHLETICS FOR SCHOOL BOYS.

AT a meeting of the Medical Officers of Schools Association held on March 10th various propositions dealing with the many questions involved in school games and athletics were passed. All branches of preventive medicine have made such strides during the past 35 years that it is no wonder that the somewhat happy-go-lucky ways in vogue at least as late as the "seventies" are no longer to be found. A glance at the resolutions passed by the association shows that they are founded on common sense. For instance, an entrance medical examination, the provision of at least one hour between a meal and active exercise, and the insistence of special caution in the resuming of active exercise after such diseases as diphtheria, influenza, and measles are regulations which, if carefully carried out, will be preventive of much harm. With regard to races, the chief recommendation is as concerns the quarter mile, a distance which, as everyone knows, is most punishing. For this race, says the association, boys should be carefully selected and its effects equally carefully observed by the medical officer and the master. The association concludes by giving it as its opinion that intelligent supervision as now practised at public schools in relation to active exercise is most necessary, but that it also reduces the risk of strenuous sport to an insignificant minimum. There can, we think, be no doubt of this, and there is another fact which is somewhat overlooked by many people. That is that the school boy is always more or less in training. He has regular hours, regular exercise, and, as a rule, simple food. The condition of the average school boy becomes very obvious when an old school team comes down to play a football match, for although the visitors' team may be far superior individually to the home team, yet the latter frequently wins. The sensible resolutions drawn up by the association should go far to reassure nervous parents and to insure the boys of the present day getting physical and, we may add, moral, good out of their school days.

THE DIGESTIVE FERMENTS IN THE INFANT.

AN interesting paper was read before the German Society for Children's Diseases¹ by Dr. J. Ibrahim of Munich giving the results of his own study of 12 newly born and 22 premature infants, as well as a review of the literature of the subject. Trypsin was found to be present in the pancreas of the foetus in the form of trypsinogen, which could be rendered active by enterokinase. This substance could be extracted from the intestinal mucous membrane in the newly born. Secretin was present in the newly born and also in the foetus in some cases. An amylolytic ferment could be demonstrated in the parotid and the submaxillary glands as well as in the pancreas in premature infants in the later months as well as at term if it was allowed to act on starch for 12 or 24 hours. It was found to appear in the parotid distinctly earlier in foetal life than in the submaxillary gland or pancreas. Maltase, lactase, and invertin were absent from the salivary glands and from the gastric mucous membrane. Maltase was sometimes found in the pancreas of the newly born, but lactase and invertin were never found in that organ even in older sucklings. Lactase was found in the intestinal mucous membrane of the newly born, but it appears to develop late in foetal life and is often wanting in viable premature infants. Maltase was earlier in its appearance

¹ Jahrbuch für Kinderheilkunde, Nov. 7th, 1908, p. 579.

and invertin is one of the earliest ferments to appear in the human embryo. In regard to fat-splitting ferments or lipases peculiar results were obtained. No ferment with this property could be separated from the mucous membrane of the intestine, but, on the other hand, a lipase was found in the gastric contents and in the mucous membrane of the stomach both in full term and premature infants. Dr. Ibrahim in some experiments carried out in conjunction with Dr. Kopeé found that even with a diet free from fat or containing but little fat the gastric contents of sucklings contained a powerful fat-splitting ferment.

LEPROSY IN AUSTRALIA.

THE subject of leprosy is at present engaging a good deal of public attention, both at home and abroad, and we understand that an international conference on this disease will be held at Bergen during the month of August of this year which will be attended by delegates from the countries more immediately interested. For this reason the report by Dr. J. Ashburton Thompson on leprosy in New South Wales during 1907 is of interest. At the end of 1906 20 persons were under detention for this disease at the leprosy lazaret; four fresh cases were admitted during 1907, leaving 22 patients in the lazaret at the end of the year. Of these, 11 were white and 11 coloured persons. From 1883, when the lazaret was established, to the end of 1907, 114 persons altogether have been isolated there. Attached to the report are various appendices, including clinical and etiological notes of the cases admitted in 1907, "survey notes" of all the patients under detention, with description of the symptoms and the appearances of the disease in each case, and the nature of the treatment employed. There are also notes on some special drugs which have been used in the treatment of leprosy, including iodoform, iodipin, fibrolysin, and formalin. Appended, too, is an abstract of a lecture on leprosy delivered by Dr. Thompson at the Polyclinic and Post-graduate School, Chenies-street, London, in November, 1907, in which reference is made to the new specific treatment by "benzoylnastin," discovered by Deycke Pasha in the course of his official work in Turkey, to whom we hear from another source that the Colonial Office has quite recently consented to afford opportunities for the treatment of lepers by this method in one of our West Indian colonies in coöperation with the local medical officers. At the conclusion of his report Dr. Thompson gives a tabular statement of the cases of leprosy reported in each of the States of the Commonwealth of Australia in 1907, comprising in addition to the four cases in New South Wales above named, 21 in Queensland, two of whom, however, should have been included in the list for 1906, and one in South Australia. It is satisfactory to learn that no cases were notified in Victoria, Western Australia, or Tasmania.

WE regret to record the death of Captain Frederick Hallam Hardy, R.A.M.C., which took place at Aden on March 8th from sleeping sickness. The deceased officer, who was only 36 years of age, contracted the disease whilst studying it in Nyassaland under the Colonial Office Commission.

Mr. A. J. Pepper will deliver the Harveian lecture of the Harveian Society of London at the meeting on March 25th at 8.30 P.M. The subject of the lecture will be "Thirty Years' Hospital Experience and Practice."

A TELEGRAM from the Governor of Hong-Kong to the Secretary of State for the Colonies announces that four