under this duplex administration of charity and correction. There is much pitiable, unfortunate, blameless poverty finding shelter in the hospitals and at the almshouse. Why should it be thrust into intolerable contrast with shameful, dissolute pauperdom? Keep the abused term 'pauper,' if it must be, to mark the latter herd; but leave 'poverty' and 'the poor' to the patient, long-enduring, suffering, and often heroic victims of failures, that fall under the wheels of success or monopoly. To such, a true life pays involuntary courtesy as to the maimed, unshapely, helpless victims of the battle-field. Because of this graceless confusion and breach of duty, much that even municipal charities might undertake and accomplish is now hopelessly out of reach.

The conclusion is irresistible that a fatality lurks in the very organization of the board of management. Here is the sphere where there is a demand for the soundest philanthropist, the matured student in sociology, together with the bravest and wisest medical service. Such alone are competent to look after and administer this settlement of social waste. There is natural congruity in this postulate. Financiers, we say, for banking, trust funds, and the public treasury; metallurgists and chemists and engineers, for mining; learning, logic, and eloquence, for the forum: that is, the specialist full ripe for his specialty. But how is it with this board who have so long been in place? Here and there the tonic presence of a strong personality has been felt; but who is so weak or stupid as to identify the board, under its present constitution, with these necessary interests in the life of the community?

And here we are forcibly confronted with a monstrous anomaly, and it is the constant peril of this whole field of municipal administration. The Board of commissioners of charities and corrections, together with its entire system from greatest to least, from centre to outpost, is in abject slavery to municipal politics, is a recognized, hopeless appendage of the 'machine.' It does not spring frankly and wisely from the popular suffrage. It has no freedom, no will, no autonomy. On the contrary, it is honeycombed with bureaucracy and officialism; and the powers that move and manipulate every member of this great constituency are as far removed above their heads as the chessplayer above the pieces he manipulates. the inherent vice of a system which relegates the administration of the under-world of social waste to the machine and its politicians: for at the outset a vicious circle is established. The dram-shops are the spawning-grounds of municipal politics and politicians. Yet these same dram-shops are chiefly responsible for the existence and growth of

the very institutions over whose fortunes the politicians, their other progeny, have come to preside. What else could happen than has steadily happened, - perpetual jostlings, abuse of discipline, tampering with the courts, muddling of justice, and an impassable chasm which separates between a timeserving officialism and the scientific and professional superintendencies. — a deadlock which discourages, if it does not paralyze, the esprit de corps of medical administration; which withholds the incentive for legitimate emulation, and reduces the men who devote, and not unfrequently surrender, their lives to the standing of tide-waiters under the bidding of an irresponsible board, which is itself nothing better than an accident in political evolution? The machine is supreme; and the commissioners rattle their own handcuffs of partisan servitude while reducing this array of employees and subordinates to the lock-step of partisan bondage. same process is going on in the kindred departments of municipal administration, as the Department of public works, the Fire department, and the Board of education. Pickings and stealings, the building-up of snug fortunes, the judicious nursing of thrifty opportunities, are insignificant elements, if they really lie in the subject. crowning injustice, the superlative cruelty, lies in the fact that this gravest trust from the people is become at once the toy and makeshift of professional politicians.

When the Board of commissioners of charities and corrections shall come to be made up of philanthropists, men versed in sociology, who accept a duty toward the people as the highest and most inviolable of trusts, instead of men who regard public office as personal property; men who live above all entanglements of political chicanery,—then there will be found ways for checking and lessening this current of social waste, even if it may never be absolutely arrested, and moral disinfectants, deturgent and tonic energies, be brought to bear directly and hopefully upon these imperilled thousands.

L. L. Seaman, M.D., LL.B.,

Late chief of staff of the

Blackwell's Island hospitals.

FROM THE THIRD TO THE SEVENTH YEAR OF CHILDHOOD.

M. Perez, in the present volume, continues his study of 'The first three years of childhood,' which has been made familiar to English readers by the translation under the direction of Mr. Sully. Our author thinks that these four years form a distinct period in child-development, — more so, at any

 $L'enfant\ de\ trois\ a\ sept\ ans.$ Par Bernard Perez. Paris, Baillière, 1886. 8°.

rate, than that from the third to the sixth or the eighth year, — and is ready to employ the same psychological method of observation in this study as in the former one. The task is more difficult as the subject is more complex. Apart from the author's rather characteristic French diffuseness, the work bears the evidence of its being the first attempt to write the psychology of this period of childhood. As the book is addressed to a rather popular audience, the diffuseness is not so serious a fault as it would be if the subject were capable of that scientific treatment which is as yet only an ideal. One who appreciates the difficulty of the task will be lenient towards the defects due to the newness of the subject. It is perhaps rather an unfortunate period for writing the book: the evidences are abundant that in ten or fifteen years it will be possible to write a better and more scientific work. Great credit is due M. Perez for venturing into this new field.

At the very outset an important point is touched upon. As we pass from infancy to childhood, it becomes less possible to make precise statements. Children under three years will differ considerably in the development of their powers; but these differences are insignificant, compared to those between various children of six or of seven years of age. Here, again, that suggestive analogy between the infancy of the individual and the race seems to hold: savages, like young children, have no real geniuses.

This important fact at once changes the method of study. For some problems, statistics should be called upon, for which kindergartens and schools should be ready to furnish the material. This part of the subject, M. Perez has almost entirely neglected. Where this method is inapplicable, one is thrown upon the insight and psychological tact of the observer, — a faculty closely allied to the insight into human nature attributed to novelists and dramatists. It is a quality of mind more feminine than masculine (witness George Eliot): and thus, while the father is better suited to study the psychic activity of the first three years,requiring, as it does, an unprejudiced, matter-offact observer, — the mother's tact will do better with the next four years.

M. Perez has little to say of the physical development of this period, but confines his attention to the higher psychical processes, such as memory, association, imagination, abstraction, inference, emotions, will. He prefaces the discussion of each with the current psychological views upon the topic, and then treats of its place in the child's

mind. Many interesting points are touched upon, a few of which may be here noticed.

At the end of the third year, no remembrance of the first two years remains: the child can with difficulty recognize objects after an eight or ten months' absence. In some cases the environment of the second year, though forgotten at the age of four, is recalled at the age of six. Apparently, the growth in the brain has made the impression more easily revivable. But the mere retentive power is strongly active, and, according to Bain, is at its maximum between the sixth and the twelfth years. This is the period the educator uses to store the mind with raw materials, the multiplication-tables, and so on. M. Perez found, that of a class of children six to seven years of age, asked to repeat a short passage after three hours' interval, only a very few could do so correctly, while two-thirds made from three to six mistakes. At the age of ten, the mere tenacity of memory has reached its height, the best memories have come to the front, and special aptitudes of memory begin to show themselves.

M. Perez is guite warm in his advocacy of the naturally optimistic bent of childhood. He regards physiological temperament as an important factor in one's philosophic views; holds that children fed on milk and fruit have a calm and sweet imagination, while those who over-indulge in meats, spices, and sugar are ardent and capricious; and thinks that the pipe, beer, and meat diet have much to do with the German form of that 'aristocratic neurosis,' pessimism. A well-fed, healthy child, whose temperament is naturally sanguine and nervous, with a touch of the lymphatic, whose circulation is quick, whose functions are constantly growing and adapting themselves to their environment (which, according to recent theories, is the definition of pleasure), is on a good path to optimism. The rôle of pain as an educator leaves the stage early: life doubtless begins with much pain; but, as soon as the habit of growth has well set in, the whole life of children is pleasure-giving, with a savage-like indifference to pain. Childish improvidence, and shortness of memory, reduce moral pains to a minimum. His imaginary troubles (so essential a part of our own troubles) are Childhood is selfish and happy. few and distant.

A German writer has written a pamphlet on the 'Lies of children.' The word must be understood in a wider than the usual sense. The distinction between the actual and the imaginary, the objective and the subjective, is not as sharp and clear to children as to us. Their world is more akin to that of the poets, where it is allowable to idealize common facts, and spice the truth with a pinch of fiction. A child of six will often tell an un-

¹ For an example of such a study, see 'The contents of children's minds,' by G. Stanley Hall, in *Princeton review*, May, 1883.

truth knowingly to get out of scrapes, to shift the blame on others, to arouse a laugh and thus change the subject, and do it with great logical acuteness. An emotional element often enters; fright makes them unable to clearly tell what has happened; distrust of adults often acts in the same way. One must gain the child's confidence to be able to correct the fault. It is only under bad treatment or hereditary taint that the habit becomes a serious moral fault: in its typical phase it is simply a stage in the intellectual development of the child.

The dawn of self-consciousness is an interesting stage in child-growth. This M. Perez very justly divides into two parts: the first is the age at which the child distinguishes its person as a thing apart from other external things, and which M. Perez puts at ten months, although Preyer's child, more than one year old, caught hold of its arm as an external object; the second, the age at which it recognizes itself as the centre of the emotions, thoughts in which it lives. This is not clearly done until the age of five or six: at about that age the child has ample material for taking the introspective attitude, and studying his own personality. Lotze, it may be noted, considered the attention to one's self which a new dress causes, as an important agent in the development of selfconsciousness.

The logic used by children is an interesting topic. The unconscious processes of thought must be included under this term. When the child says it avoids the fire because it burns, it goes through an unconscious syllogistic process. But, having little knowledge of general propositions, its deductive processes are very rudimentary. The induction has the same faults as that of hasty reasoners,—generalization on too slim a basis. If the uniformity of nature is the guiding principle of induction, evidently one who has had little experience of this uniformity will go astray in his logic. Little Jack concludes that men do not go to church because his father does not.

The emotions of the first years are vivid, transient, and naïve. The child's actions are largely impulsive: it has no reasoned moral algebra. It has a meagre conception of time: it lives in the present, and future ills have little meaning. A child usually overrates its own powers, is sanguine and selfish. The higher sentiments, aesthetic and moral, depend largely on education.

The development of the will includes a motor, an intellectual and an emotional element. With the development of the muscular system, its acts come to coincide more and more with its intentions. The repressing of unnecessary, partly reflex manifestations is one of the most

serious tasks of childhood. It requires all the skill of the parent and educator to make the child a useful, mentally economical member of society, without killing out that naïveté and naturalness of development so difficult to retain amid the artificiality of modern society. It is here that the formation of habit as a saver of time and energy becomes all-important.

Perhaps this sampling sufficiently indicates the contents of the work of M. Perez. It opens a rich field. Those who come after will be glad to profit by his experience.

JOSEPH JASTROW.

WORK OF THE MAINE AGRICULTURAL EXPERIMENT-STATION.

This modest report of eighty-seven pages covers the work of the station from its foundation, July 1, 1885, to June 30, 1886, and, though small, is a model of what such reports should be. The first portion is devoted to the fertilizer control work, and contains analyses of seventy-five samples of fertilizers and fertilizing materials, together with explanations of the principles on which the 'valuation' of fertilizers is based.

The second portion of the report is of more general interest, and contains the results of several feeding experiments. Determinations of the digestibility of indian-corn, corn-meal, and corn ground with the cob, when fed to a pig, showed that the meal was much more completely digested than the whole corn, while the percentage digestibility of the corn-and-cob meal was below that of the whole corn. A computation based on the proportion of corn to cob in the corn used showed, that, if we assume the corn of the corn-and-cob meal to have had the same digestibility as the whole corn, about one-ninth of the cob was digested.

Some experiments on milk-production showed a decided gain to result from substituting cotton-seed-meal for a portion of the corn-meal of a ration consisting of hay and corn-meal. Similar experiments by Armsby at the Wisconsin experiment-station have given the opposite result; but in discussing these, the director, Prof. W. H. Jordan, shows that the apparent conflict is due to differences in the conditions of the experiments in the two cases. A similar advantage was found to result from the use of cottonseed-meal in fattening steers.

Professor Jordan's report is noteworthy for its clearness of statement and its scientific spirit. The experiments are planned with a definite purpose, and the results are discussed in a way to render them intelligible to any thinking farmer.

Annual report of the Maine fertilizer control and agricultural experiment station, 1885–86. Augusta, State, 1886.