 Séguin AND PHYSIOLOGICAL EDUCATION.

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TEACHERS OF MENTALLY DEFECTIVE CHILDREN, AT BEDFORD
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I MUCH appreciate the honour of being allowed to supplement your more formal courses of study with regard to mental defectives by a few biographical particulars and personal reminiscences of one who may be designated as the pioneer in their training, and the earliest exponent of the educational principles essential to their mental development. I may add that the principles Séguin laid down some seventy years ago apply to a far wider range than the instruction of imbeciles, and I shall hope to show that his master mind anticipated many of the modern methods which of late years have been accepted by the educational world as recent discoveries. As Mr. Holman well puts it in the opening sentence of his admirable book (1) on Séguin (to which I would at once express my appreciative acknowledgments), "The world has not infrequently had to rediscover its great men after they were dead, though their works lived after them." The voice of Séguin was indeed, in his own day, at any rate as far as general educational science was concerned, as of one crying in the wilderness, and was even derided by the self-satisfied educationalists of the time. His ideas were indeed in advance of the age in which he lived; but what joy would it have been to him to see a summer school of earnest students of the subject nearest to his heart!

Edouard Séguin was born in 1812 of a good Burgundian stock, numbering among his forebears several physicians of repute. Educated first at the Provincial College of Auxerre,
and subsequently at the Lycée St. Louis in Paris, he studied medicine at the Sorbonne, where he fell under the inspiring influence of Itard and Esquirol, both eminent medical professors with a penchant for psychological investigation. Itard had, indeed, startled his scientific contemporaries some thirty years earlier by his attempt to humanise and educate the so-called "Sauvage de l'Aveyron," a boy, apparently about 12 years old, captured in 1798 by sportsmen in the forest of Caune. The boy had obviously been for a long time running wild in the woods and had probably subsisted on small game, roots, nuts and acorns. This creature, more like a beast than a human being, unclothed and speechless, fiercely resisting with his teeth and nails—grown into claws—all attempts to clothe or control him, ultimately found his way to the school for deaf mutes at Paris, then under the charge of Sicard, the successor of the famous Abbé de l'Épée. The case excited much interest amongst the savants of the day, and Itard inclined at first to the opinion that the savagery of the boy was simply clue to his solitary life and deprivation of human control and companionship. Various means used for rehabilitating him having proved utter failures, Itard by degrees and reluctantly came to the conclusion that the boy was an idiot. Thereupon he set to work to formulate a scheme of training which he thought would be suited to his condition, and the steps of the process proposed were:

1. The development of the senses;
2. The development of the intellectual faculties;
3. The development of the affective functions;
and thus he unconsciously laid the foundation of the education of mental defectives.

Séguin's gifts as a student, especially his analytical powers and his persevering patience in research, had gained him Itard's esteem, and the young physician became the favourite companion of his old age. At the veteran's house he would often meet Esquirol, then the foremost psychologist of France. We can imagine "the feast of reason and the flow of soul" that would attend the gatherings of so notable a trio. It was indeed through the influence of Itard (whom he refers to as his illustrious master) that Séguin determined to devote himself to the study of idiots, and to think out methods for their improvement; and in his efforts in this direction he had the cordial
assistance and encouragement of Esquirol. In 1837, when only 25, Séguin undertook the treatment and education of a child (Adrian) “almost dumb and apparently an idiot” (to quote the guarded description of the case by Esquirol and Guersant), and these authorities testified by formal certificate in August, 1839, that after eighteen months’ careful training Séguin had taught his pupil “to make use of his senses, to take care of himself, to speak, to write, to reckon, etc.” Evidently the “apparent idiot” was of a type superior to that we should call idiotic nowadays; but the fact remains that new and special methods were necessary to initiate progress which had previously been considered hopeless. There is fortunately preserved in Séguin’s pamphlet entitled Résumé de ce que nous avons fait depuis quatorze mois, originally published in 1839, but reprinted by Bourneville with other memoirs in 1897 (2), a statement of the principles and proceedings which led to so happy a result with this pupil, and this account is also signed by Esquirol as vouching for its correctness. Encouraged by this individual success, Séguin proceeded to open in 1839 a “school for idiots” in Paris, the first “special school” on record. This, though necessarily more or less an experiment, and scrutinised not always in a friendly spirit, justified its existence as time went on by excellent results, and attracted numerous visitors from all civilised countries. It served indeed as a model for developments which soon arose in Switzerland and Germany, and later in America and Great Britain.

The success of this “private adventure school”—for such it was, as it had been equipped and carried on at Séguin’s personal risk and expense—drew the attention of the public authorities of Paris to the possibilities of amelioration, if not of cure, of what had been previously deemed the hopeless condition of defectives, and Séguin was requested by the Minister of the Interior to give a probationary course of instruction to the poor idiot children at the Hospital for Incurables—subsequently removed to Bicêtre, outside the fortifications—and in 1842 a Government Commission reported so favourably on his work that a further year’s trial was recommended, and in consequence of their final report he was appointed director of the Idiot Department of the great Bicêtre Hospital, with which he remained connected until the French Revolution of 1848. Meanwhile, his name as an author was becoming widely known, and
amongst his publications we find his first comprehensive essay on the "Theory and Practice of the Education of Children Mentally Retarded and Idiots," being of the nature of a report on his work with those in the public charge, and an article contributed to Annales d'Hygiène on the "Hygiene and Education of Idiots." I have here an original copy of his great work published in 1846 under the title of—"Traitément Moral Hygiène et Éducation des Idiots et des autres enfants arriérés ou retardés dans leur développement, agités de mouvements involontaires, débiles, muets non-sourds, bégues, etc." I have quoted this title at length because I wish you to note that Séguin's studies and methods extended far beyond the lowest types of defectives. This book was crowned by the French Academy, and for many years remained the best, if not the only, guide to the training of defectives on scientific lines, Séguin had not altogether a bed of roses in connection with his public work at the Bicêtre, for there he was confronted by implacable rivalries, and sometimes subjected to unfair misrepresentation. Still his love for his little patients carried him through, and he was constantly excogitating fresh plans for their welfare. So he went on till the political upheaval of 1848 led him to take an active part in the establishment of a Republic, and when this was supplanted in 1850 by the ambitious pretensions of the Prince President (soon to declare himself Emperor), he emigrated, with his wife and young son, to the great Republic of the West. In the United States, whither his fame had preceded him, he soon found congenial friends at the institutions then being organised for the feeble-minded (e.g., the Massachusetts State Institution, near Boston), and he subsequently helped Dr. H. B. Wilbur to get into working order the newly opened New York State Institution at Syracuse. By request he also undertook for a time the direction of the Pennsylvania Institution, a post which he occupied up to 1857. After one or two spells of general practice (e.g., at Cleveland and at Mount Vernon) we find him attracted to the City of New York by the fact that there existed close by—at Randall's Island—a large Municipal Establishment for Idiots, in which he was instrumental in procuring needed reforms, and in organising appropriate teaching. It was in 1866 he published his English work, entitled "Idiocy and its Treatment by the Physiological
Method," of which we shall speak later. I have referred to Séguin's occasional spells of private practice; these were undertaken as a means of livelihood, for he had a wife and a young son to maintain, and, unlike certain founders of new systems of education of our own times, had never tried to make money by patenting his inventions, but had generously placed them at the free disposal of his colleagues and indeed of the whole educational world. His experiments and apparatus, however, cost him time and money, and unfortunately he had an invalid wife for whose benefit he undertook several expensive journeys to Europe, and he spared nothing in the education of his son, Dr. E. C. Séguin, whom he subsequently had the satisfaction of seeing recognised as one of the leading neurological physicians of New York. Séguin lived and died a poor man, rich however in his consciousness of self-sacrifice in the cause of humanity, and of the success of his efforts to improve the condition of the most piteously afflicted of God's creatures. Even in the comparatively uncongenial work of family practice his acuteness and originality could not be suppressed. The introduction of the clinical thermometer as a scientific aid to diagnosis interested him greatly, and he devised a special form of it for family use. In 1873 he came to England as a delegate from his medical colleagues to read a paper on "Clinical Thermometry" at the annual meeting of the British Medical Association, held at King's College, London, and this was the occasion of our first meeting. I approached him after the discussion on his paper, and asked him if he were the author of the books on Idiocy which I had read with so much pleasure and profit. "I am the man," said he, "but who are you?" Explanations followed, and I did not leave him till he had promised to pay me a visit at Lancaster, where I was then the young and inexperienced superintendent of the three-year-old Royal Albert Asylum. He came and spent a week with me, and to the inspiration of this visit much of the subsequent success of this institution is due. In 1876, when Dr. Fletcher Beach and I undertook a tour of visits to the American institutions for the feeble-minded, we met again at Séguin's modest residence in New York, where he was leading a widowed life, and devoting himself to literature in the intervals of his medical practice. Well do I remember one evening spent with him—not over walnuts and wine, but the
simple fare of "crackers" and iced water—when he discussed with us what we had seen at the various institutions, and startled us by his keen insight into the conditions of each, and his quaint but good-humoured criticisms. One could not be long in his presence without being struck by his penetration and his transparent honesty of character, his ready resource, his modesty with regard to his own achievements, and his unselfish encouragement to his juniors to take advantage of their more favourable circumstances to surpass them. Séguin has been accused of undue optimism as to the results he attained, but no one conversing with him could doubt his entire sincerity, and his utter detestation of humbug of every kind. In person he was a dapper little man rather below medium stature, neat in his dress, and his expression beamed with intelligence, his eyes piercing you through, and lending force to his quaint precept in his English work on Idiocy that in dealing with the wandering eye of the imbecile "the main instrument in fixing the regard is the regard." In his later days he was a victim to dysenteric troubles, which on October 28th, 1880, brought his useful life to a close, not, however, before he had married, as his second wife, one of his most gifted teachers whose work he had recorded in two of his latest publications, "The Psycho-physiological Training of an Idiotic Hand," and "The Training of an Idiotic Eye." To her he bequeathed the little school—the "Séguin Physiological School"—which he had established with her assistance in New York; and this is now a flourishing establishment for mentally deficient children of well-to-do parents in a charming location at Orange, New Jersey, under the direction of Mrs. Elsie Mead Séguin (whose personal acquaintance I had the pleasure of making in London a year or two ago).

We must now turn from the man Séguin to his educational work. We have already drawn attention to the fact that he claims that the doctrines which he advanced as indispensable for the successful training of defectives were applicable also to the education of ordinary children. I will read two paragraphs from his great book of 1846 which explain his views in this regard (see Holman, op. cit., pp. 30–31):

"From this truly exceptional situation has resulted a work which I believe to be entirely new, not only upon Idiocy but even upon Education. For, in taking as my aim the treatment
of young idiots, I was continually led, by the very nature of my subject, to inquire into methods, to weigh theories, and to discuss practices of instruction. Though all the methods which I studied seemed to me to be good for ordinary children, or rather, though the intellectual development of ordinary children renders them excellent, they lost their illusory power in proportion as I attempted to apply them to idiots. None of them was sufficiently complete; none took sufficient account of the psychological and physiological anomalies of which the human being is capable, to be satisfactory to me.

"Thus proceeding always by the method of elimination, in proportion as I advanced in my critical examination of methods, I found myself alone, not only in my attempts at a treatment of idiots, but equally in the work of general pedagogy, which I thus saw myself partially compelled to formulate, day by day, with more and more precision. It followed that instead of the book which I wished to write upon a single subject, I fear I have written two: one upon Idiocy, and the other upon Education. For such is the force of logic that one of these questions cannot be resolved before the other; so I have been compelled to resolve the second in order to reach the solution of the first. Moreover, so intimate is the connection of the various theories of anthropology, that, instead of a simple question of idiocy, I have found myself engaged in questions of hygiene, physiology, education and morals, which are inevitably connected with the first."

Holman well puts the main features of Séguijn's physiological method of education in the following paragraph (op. cit., p. 50):

"Broadly put, the conclusions at which he arrives are: man is at first predominantly an animal, though always a man in essence; and he must, therefore, be educated primarily through his activities and his senses. In order that he may finally be the best sort of man his native capabilities will permit, he must primarily be the best sort of animal he can be. In other words, all the physical functions included in his muscles, senses, and nerves must be educated to their fullest efficiency at the moment, as the best means of developing his mind ultimately, since the central brain is dependent for its early development upon the development of local brains. But in all this the educator must ever keep in view the fact that man must always be developed, even from the very first moment, in such a way
as to secure a harmonious growth of his powers of body, mind, and will."

Séguin himself, in the course of an address (3) to a New York Medical Society in 1869, after discussing the causes, anatomical signs, and medical aspects of the subject, goes on to speak of the principles of physiological education, which in his view consists of educating the mind through perceptions instead of by pre-arranged reasonings, and on the following axioms:

1. That if we could take hold of an organ, we would be able to make it produce its function.
2. That the organs of sensation being within our reach and those of thought out of it, the former are the first we can set in action.
3. (Consequently) *The physiological education of the senses must precede the psychical education of the mind.*

After illustrating the above propositions by practical instances (e.g., in the history of the Aveyron Savage and of Caspar Hauser as contrasted with the results of purely intellectual education, which he says produces fools and pedants, not true scholars), he concludes his thesis with the assertion that "the physiological education of the senses is the royal road to the education of the intellect; experience, not memory, the mother of ideas." Elsewhere he sums up briefly his method with defectives on the following lines:

1. To exercise the imperfect organs so as to develop their functions, and
2. To train the functions so as to develop the imperfect organs.

Unfortunately time does not permit us to pursue these principles into their varied educational applications. It must suffice to remark that the reforms of recent years in the curricula of schools, such as the gradual reduction of mere memoristic learning and parrot-like repetition, and the substitution of systematic exercises of the muscles, of the hand and of the eye as well as of the ear, in other words of physical and manual instruction, follow from these principles. Of the various devices invented by Séguin for finger drill and sensorial gymnastics I can but briefly speak, but many of them have been incorporated into the Montessori "pædagógic material," not indeed without acknowledgment by the distinguished foundress of the system (herself originally instructress of defectives), though I may add that their
source is often insufficiently recognised by her followers. I show you specimens of Séguin’s educational appliances (see p. 11), introduced into the Royal Albert Schools after my visit to America in 1876 (kindly lent for this occasion by my friend and successor Dr. Coupland), and I think those familiar with the Montessori “didactic material” will trace their resemblances. In my opinion the alterations introduced are not altogether improvements; but after all it is not so much the exact form of apparatus that matters as the intelligent spirit—the Dottoressa calls it “Spirituality”—in which it is used.

Had time allowed I should have liked to refer to Séguin’s efforts to obtain for the poor children of the crowded quarters of New York the benefits of open-air teaching by the establishment of what he called “garden schools” in the public parks and squares. I have here his plea on this subject published in 1878 (4)—another proof of his pioneer prescience in a cause which is only just now coming into accomplishment here through the tardy official approval and advocacy of open-air schools.

In conclusion let me quote one pregnant sentence from Séguin’s English book on Idiocy which shows the spirit in which he regarded his relations with his pupils: “To make the child feel that he is loved” (he writes), “and to make him eager to love in his turn is the end of our teaching as it has been its beginning.”

List of References.

(2) Premiers Mémoires de Séguin sur l’Idiotie, publiés par Bourneville, Paris, 1897.
(4) Our Parks: to be or not to be, New York, 1878.

Graduated wooden rods, to be arranged in step-like series, to give ideas of dimension.

Size-board, to cultivate discrimination of size.

Form-board, to cultivate discrimination of form.