The influence of Pestalozzi on Prussian elementary education in the early 19th century.

Thiem, Erwin

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Erwin Thiem, B.A., 1969

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After her defeat by Napoleon, Prussia turned with renewed vigour to Pestalozzi's system of popular enlightenment as the one means left to regain her glory. Since his system depended for success on the regular supply of trained teachers, Prussia sent students to be trained by him and established teacher training institutes to provide a professionally trained corps of teachers imbued with the Pestalozzian spirit to work in the new state elementary schools. Here the curriculum was expanded and the courses of instruction based on Pestalozzi's teachings.

Once Prussia had regained her lost powers, the success of the new education was retarded by the opposition of the ruling classes, who feared

its liberalising influence. Teacher training was restricted and teaching became a rigid discipline. Efficiency was regarded as the only measure of success, education was to serve the state, not the individual. Pestalozzi's ideas could not be eradicated, but they were largely suppressed. His direct influence on Prussian education was at an end.

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"THE INFLUENCE OF PESTALOZZI ON PRUSSIAN ELEMENTARY EDUCATION IN THE EARLY NINETEENTH CENTURY"

Being a Thesis submitted for the Degree of

MASTER OF EDUCATION

IN

THE UNIVERSITY OF DURHAM

by

ERWIN THIEM, B.A.

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1969

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PREFACE

Popular education in all civilized countries at the present time is taken for granted. It is difficult to realize that before Pestalozzi popular education hardly existed. He was the initiator of a new movement in education which culminated in a national system of education in Prussia in the early nineteenth century. This revolution in the concept of education was accomplished largely by his personal influence on Prussian educational thinkers and administrators. It can be attributed also to the unprecedented enthusiasm and active interest in education in Prussia at this particular time, inspired largely by Pestalozzi's educational writings and more particularly by his practical educational example at his schools in Burgdorf and Yverdon. During the course of the nineteenth century, when other nations were just beginning to realize the social importance and necessity of the education of the underprivileged masses, it was to Prussia that they turned as a model of effective universal education. It is the aim of this work to establish to what extent and by what means Pestalozzi, a native of Switzerland, was able to influence another nation's entire educational programme at this particular period of that nation's history.

The thesis opens with a section on Pestalozzi's personal background, and is followed by Prussia's historical educational background. I am in agreement with Pinloche when he says that: "We cannot justly or fully appreciate the work of a man who was at the same time a practical worker as well as a theorist on education unless we know his life and writings".[1] It is impossible to present a study of Pestalozzi's

widespread influence in Prussia without this insight into his life, which cannot be separated from his educational theories and experiments, and his times, which were so opportune for the development of his schemes on a national level. This first section closes with an account of the beginning of the penetration of Pestalozzianism into Prussia up to the year 1806, which was the turning point for his influence in that country.

In the second section of the thesis the practical educational significance of Pestalozzi's influence in Prussia, which was at its strongest in the decade following Prussia's humiliating defeat at the hands of Napoleon, is considered in detail. The intention is to show how the close personal ties between Pestalozzi and influential Prussian leaders, coupled with Prussia's desire for spiritual regeneration through education, helped to bring about fundamental changes of policy in the land which opened the way for the practice of the Pestalozzian method and the adoption of a Pestalozzian curriculum in the elementary schools and teacher training institutes, until the time when the true Pestalozzian spirit no longer prevailed in Prussia.

In the conclusion an attempt is made to assess the significance of Pestalozzianism for the Prussian elementary school system in terms of its impact during the early years of the century and to indicate the reasons for its modified influence by the 1820's and certainly by the time of Pestalozzi's death in 1827.

Finally I would like to add that despite the proliferation of works on Pestalozzi written in German, I have been encouraged in undertaking this research by the dearth of modern works in English on this

important educator, especially concerning this period of educational history. Even in German no modern book detailing this particular aspect of Pestalozzi's influence has so far been published. I gratefully acknowledge confirmation of this fact by Dr. Emanuel Dejung, the General Editor of Pestalozzi's Complete Works and Letters. My thanks would also go to the Pestalozzianum in Zürich, the "Deutsches Pädagogisches Zentralinstitut" in Berlin, and to Dr. Georg M. Rückriem of the "Erziehungswissenschaftliches Institut" of the University of Marburg/Lahn for the valuable suggestions with regard to bibliography and research material.

INTRODUCTION

During the course of the eighteenth century, new ideas on education and its function in society began to take shape. Education was to be considered as a force which could not only change the life of the individual but also promote the reformation of the whole of society. This could only be achieved by a well-organized state system of education. The eighteenth century was an age of growing nationalism and government leaders began to see in the school an instrument for making the nation strong and great. This idea of state education already had a sound basis of development in Germany, although it was not to be implemented on a wider scale until the beginning of the following century in Prussia.

Schooling began to be thought of as a more active process than before. Observational methods and new studies were introduced and the old subjects were taught in new ways and for new purposes. The educational thinkers of the time were developing new interests in physical education, in science and the study of nature, in the use of the senses to teach pupils to think for themselves. These educational innovators began to consider the nature of the child and to adapt their educational theory and their teaching to the growing child. They attempted to determine the stages of mental development and to suit their methods and their materials to these stages.

The effort to base education upon child study and psychology was a marked characteristic of the educational thought of Jean Jacques Rousseau (1712-1778), and reached a high point at the beginning of the

nineteenth century in the attempt of Pestalozzi to "psychologize" education. By experiment Pestalozzi evolved a new system and a new concept of elementary schooling, which was successfully adopted and applied in Prussia. Pestalozzi's life was dominated by the thought of the regeneration of humanity by education: "All my life I have desired", he wrote in 1801, "and today I still desire one thing alone: the welfare of my beloved people whose wretchedness I feel as it is felt by few".[1]

The publication of Rousseau's work "Émile" in 1762 greatly stimulated in Germany and in the German-speaking part of Switzerland the strivings for educational reform. The general enthusiasm created by this work was taken advantage of by such educational pioneers as Basedow, Salzmann and Rochow in Germany, and Pestalozzi and others in Switzerland. The revolution in educational theory and practice brought about by these leaders in education, often with the cooperation of influential statesmen, was to result in the creation of a new type of elementary school in Prussia within the framework of a centrally controlled system of education.

PART ONE

PESTALOZZI AND PRUSSIA UP TO 1806

Chapter One - Pestalozzi's Early Life and Work

Early influences

Pestalozzi never regarded the teaching given in the schools of his time with great respect. Elementary schoolteaching in his youth was nothing more than the dull and mechanical recitation of passages learnt by heart, and even the higher education of the time was to be criticised: "All higher education was a preparation for the study of theology; the sciences were not fostered, nor was independent thinking encouraged. The teachers were pitiable creatures, despised and despising their craft; their corrupt practices filled young Heinrich, ... always guided by his impulsive heart, with disgust".[1]

During the holidays Heinrich used to visit his grandfather, Andreas Pestalozzi, the pastor of the village of Höngg, which was situated in the canton of Zürich. He used to accompany his grandfather on his visits to the village school, where the latter superintended the teaching done there, assuming the function of educator of the people under his pastoral care, and standing in intimate relation with home and school. Despite the technical weaknesses of the work done in the village school at Höngg, Pestalozzi described his grandfather's school with pride: "His school, however defective it might be in point of method, was in living connection with the moral life and the home education of the people, and this combined education cultivated effectively and energetically the practice of habits of attention, obedience, industry, and effort, in short, laid the essential foundations of education".[2] Pestalozzi's sympathy for the poor and underprivileged, his anger over their state

of ignorance and inability to help themselves were aroused here.

Education and Development

After elementary school and preparatory school, Pestalozzi attended the "Collegium Humanitatis" (the Zürich Latin school) and then went on to study philology and philosophy at the "Collegium Carolinum", a kind of higher public school, where among his teachers was Bodmer, who taught Swiss history and politics.

Of great influence on Pestalozzi at this time were the ideas of Rousseau, whose educational doctrine was considered by Pestalozzi as providing a new impetus and life to education. "My visionary tendencies", he wrote, "were stimulated to a pitch of extraordinary enthusiasm when I read that dream book ("Émile") of his. I compared the education which I had received at home and at school with that which Rousseau demanded for Émile, and felt how wretchedly inadequate it all was .... With Herculean might Rousseau rent asunder the heavy chains which bound the human mind; he restored the child to itself and education to nature".[2] The book made such a deep impression on him that he decided to renounce the idea of an ecclesiastical career to which he had at this time intended to devote himself.

In 1762, after the government of Geneva had condemned Rousseau's "Émile" and his "Contrat Social" as dangerous to the state and Christianity, student societies sprang up in Zürich to further the cause of political and social reforms. In 1765, with the help of Bodmer, a group of students calling themselves the "Patriots" founded the "Helvetic Society", a movement for raising the moral standards of the country. Pestalozzi

became an active member. From the beginning of 1765, the "Patriots" issued a journal for the discussion of moral, social, political and educational matters called "The Monitor",[4] and Pestalozzi was a frequent contributor. In one issue of the journal can be found the first traces of his vocation for an educational career. "A young man", he wrote, "who plays such a small part in his country as I do, has no right to criticise, or to suggest improvements; people tell me so nearly every day of my life. But surely I may be permitted to express my wishes? ... Would that some citizen would print a book containing sound principles of education in language simple enough for the humblest to understand, and that some wealthy philanthropist would make it possible to distribute it freely amongst the people and that they would read it. But what a lot that is to wish all at once!"[5]

Early Experiments

Rousseau's teachings were a gospel to the young men of the "Helvetic Society". Many of Pestalozzi's friends took Rousseau's call of "Back to Nature!" literally and entered upon agricultural enterprises, encouraged by Bodmer. Inspired by their example, Pestalozzi went to study agriculture under Johann Rudolf Tschiffeli on the latter's experimental farm, the "Kirschberg", in the Bernese Emmenthal. Tschiffeli had converted a tract of apparently worthless land into a number of valuable farms, establishing the welfare of five villages. Pestalozzi wrote in a letter to Anna, the sister of one of his friends, Caspar Schulthess, and who was later to become his wife: "Here I am, and my happiness exceeds all expectation. Tschiffeli is the best of fathers,

the greatest of farmers. I am going to learn farming in all its branches, and shall certainly become independent of the whole world'.[6]

After a year with Tschiffeli, Pestalozzi purchased about fifteen acres of uncultivated land in the plain of Birrfeld, in the Canton of Argovie, where he intended to make his livelihood as a farmer, living according to Rousseau's doctrine. On the 30th September 1769, Pestalozzi married Anna and went to live in a country cottage on his land. A further sixty acres were added with the financial help of a Zürich banker and Pestalozzi began his agricultural enterprise with enthusiasm. He started to build a house, which was never completed, and which he named the "Neuhof" (New Farm), where the couple settled in the spring of 1771. Soon it became obvious that this farming venture was going to end in failure, for Pestalozzi had no head for business. He blamed no-one but himself for the failure: "The cause of the miscarriage of my enterprise lay not in it but solely in myself and in my pronounced incapacity for any undertaking demanding practical abilities".[7]

The Diary

Despite all his difficulties at this time, Pestalozzi still found time to devote himself to the education of his son, Jean Jacques, as he was significantly called. From the beginning of 1774 he kept a regular diary, which is the first record of his educational principles, and his first experiment in pedagogics. The diary contains the germs of most of the ideas which dominated all his educational thought: to be in no hurry, to make clear both to the sight and to the understanding, to develop the senses, to take nature as guide, to attach more importance

to things than to words, to respect the child's dawning liberty, to assess the psychological moment for instruction.

The influence of Rousseau is obvious in the diary, but it also shows Pestalozzi's independence of thought. "Let us make use of what is wise in his (Rousseau's) principles", he wrote in his "Schwanengesang".[9] Experience taught him that it was at times necessary to oppose nature. He prescribed regular hours of work for his son and did not let the boy's feelings of affection remain dormant. After these early years of intensive teaching, the boy's further education remained casual, for Pestalozzi had little time to spare for his son when his house was full of poor children.

The Poor School

Some time before his farming venture at the "Neuhof" failed, Pestalozzi's house had become a home for neglected children, who were taught to work and learn at the same time. Pestalozzi's idea was to teach poor children to earn their living by their own work as cotton spinners or weavers and he had added a spinning-mill to his farm for this purpose. While working, these children were to learn arithmetic and the catechism by repeating together what they had been told. In the evenings, by way of recreation, the boys were to do gardening, the girls cooking and sewing. Pestalozzi hoped to teach them how to live self-respecting lives, even in poverty. He resolved to give them an education suitable to their condition, even though he was aware of the difficulties: "It is exceedingly difficult to give the poor and lower classes a simple education in accordance with nature, where the education of all those who are not poor or in need is unnatural and artificial to

a high degree".[10]

The poor school opened with about twenty children between the ages of six and eighteen. Pestalozzi considered that the true means of helping these unfortunates was "to call forth, and put into action, the power every human being possesses of satisfying his needs and doing his duty in his state of life."[11] Consequently education was the first consideration in his plan. After a time he became unable to supply the necessary funds for the continued support of his growing institution himself, so he had recourse to an appeal for aid to philanthropists.[12] With the subscriptions he received and thanks to the help of Iselin, the registrar at Basle, who was now interested in education, Pestalozzi was able to overcome this first financial difficulty of his poor school. However, it was not only financial difficulty which led to the eventaul closure of the school in 1779. Many of the children were already hardened in bad habits when they arrived, and they resented beforehand the kind of influence Pestalozzi wished to bring to bear on them.

Pestalozzi's attempt to build up a self-supporting industrial school for poor children had failed. Only the incompleted "Neuhof" building remained to the Pestalozzi family and they were reduced to poverty. Pestalozzi realized he had attempted too much, that he had tried to carry on his experiment on a scale quite out of proportion with his capacities. Yet the poorer he became, the stronger grew his faith in his ideas. He had tested the truth of these ideas in practice and he had realized his true vocation: "My life is devoted to the education of the poor; this is what I seek and nothing else".[13]

Chapter Two - Pestalozzi's First Literary Attempts - His Theory of Education

"The Evening Hour of a Hermit" - the Formulation of his Educational Ideas

A period of material poverty on the "Neuhof" followed for the Pestalozzi family. Then, acting on a suggestion by Iselin, who edited the literary journal the "Ephemerides",[1] that he should continue the pursuit of his subject by writing books for the people, Pestalozzi began to take part in literary competitions, with great success. His first literary effort was a series of aphorisms, published anonymously in the "Ephemerides" and entitled "The Evening Hour of a Hermit".[2] These aphorisms furnish "the programme and key of Pestalozzi's pedagogical system, the plan of a gifted architect who is convinced of the value of the work which destiny has prevented him from carrying out".[3]

In this work Pestalozzi sees man in his ignorance groping blindly for the truth which is only to be found in his own nature. "On which path shall I find you, O truth, that can raise me to perfection?"[4] he exclaims. The infant, learning his lessons of love and gratitude, is on the way to it. It begins in his immediate neighbourhood; true human wisdom rests firmly on the basis of an intimate knowledge of what lies nearest to it, and on the trained capacity for dealing wisely with its most immediate concerns. All specialised education must therefore be subordinate to this general aim. Man can never attain the complete truth, but he does not need it, because his range of knowledge is limited. The way of education is the way of nature. The minds of children should thus not be forced into distant fields or be led into the confusion of word-teaching before they have been directed towards truth by first-hand

acquaintance with the realities of their surroundings; first the thing or object, then the word. All man's native capacities and powers should have the opportunity to develop by use and exercise. The universal aim of all education is the moral culture of the individual. As man is fundamentally social, he must be educated for society as well as himself. In this respect the family is the greatest educative influence. In it all human relations are typified and all man's finest feelings are rooted. The child's love for his parents is the starting place of his love for God, which is the source of all inner peace and restfulness in life. The rulers of men should see in the relations of fathers to their children the noblest pattern of their own obligations to their people. Paternal and filial spirit in family and state are the foundations of political as well as of moral freedom.

Some of the most characteristic of Pestalozzi's doctrines are suggested in the aphorisms. At the time of their publication, however, they attracted little notice.

"Leonard and Gertrude" - The Beginning of Pestalozzi's Influence

Pestalozzi's next literary venture was a more practical and concrete contribution to the literature of social and educational reform. The holiday visits to his grandfather in his boyhood and the years at the "Neuhof" had brought him into intimate contact with the poor and he had endured poverty himself. These experiences were the source of the story "Leonard and Gertrude".[5] It was published in 1781 and afterwards extended to four volumes, the last three published in 1783, 1785 and 1787 respectively. The newspapers were full of the praises of this book when the first volume appeared. It established Pestalozzi's reputation as a writer in Europe,

even if his true intention of revealing the moral degradation of the country people and the means of alleviating it through education was not considered.

Pestalozzi intended to create a kind of "people's catechism, using the limited concepts of the lowest classes, their language, and their mode of thought".[6] In his simple story of village life he wanted to make clear the disastrous effects of a corrupt officialdom and to indicate a means of improvement. Every household in the village of Bonnal suffers from the malicious influence of Bailiff Hummel, who is the local innkeeper and also the land agent. The whole atmosphere of the village is contaminated and the people have for the most part sunk into poverty and degradation. One exception, however, is the household of Gertrude, who is depicted as the model wife and mother. She is able to save her husband, Leonard, from the evil machinations of the Bailiff. Inspired by her action, Arner, the new squire, who is anxious to do his duty to his people, initiates reforms which ultimately lead to the dismissal of the unscrupulous Bailiff.

The plot is of minor importance compared with the vivid description of the rural conditions of the time and of the home influence of Gertrude, Pestalozzi's ideal heroine. Her character and her activities set the example for the doctrine which is characteristic of all Pestalozzi's teachings, that family life is the greatest of all educative influences. In this work Pestalozzi emphasizes the role of the mother in the family and her great importance in education. Education has its starting-point in Gertrude's living-room. From infancy the children are trained to contribute to the family's livelihood. In the living-room work and

lessons go on simultaneously. As they spin and sew Gertrude teaches her children to do sums, because "counting is the foundation of order in the head". She does not hurry them into reading and writing; the first thing is to teach them to speak. She never takes them a step further than they are able to advance from their own observation. "The habit of accurate observation is the first step to practical wisdom", is the remark made by the village schoolmaster of Bonnal, who takes Gertrude as his model. Moral and religious education is given through the example of Gertrude's actions rather than by direct teaching.

The general tendency in the novel is the preference given to practice over theory, to the family over the school, to near objects in the home over remoter ones in the outside world. Common sense is regarded as more important than book-learning. This can be best taught by father and mother, for no schoolmaster can be to a child what his parents ought to be. Pestalozzi considered schools as necessary, but insisted that they must be filled with a parental spirit, for to stimulate a child's activity he never appealed to ambition, rather to the child's love of his parents and teachers, his sense of duty, and his interest in the subject. He insisted on the master "never losing sight of his responsible position, viz. that he has undertaken to represent the parents of his pupil; that, as a parent, he must watch over his morals as well as his literary requirements, he must awaken reflection before he can hope for application; he must suit his labours to the taste of his age, and partake with him in those labours in order that he may enjoy them; in short, the heart of the master must be warm in the cause he has espoused, or success cannot be hoped for".[7]

Pestalozzi later asserted in his "Swansong" that the home education described in "Leonard and Gertrude" contained the germs of the psychologically elaborated system of elementary education he propounded many years later.

Chapter Three - Pestalozzi the Schoolmaster - his Practice of Education Work in the Stans Institute

Despite the years of literary activity which followed, Pestalozzi never abandoned the idea of reforming the education of the children of the poor. It was not until 1798 that he was given an opportunity to put his ideas into practice. In April of that year Switzerland was proclaimed "The One and Indivisible Helvetian Republic" and a system of centralized government and administration on the French pattern was established. Unterwalden, one of the three cantons which had founded the old Swiss Republic, refused to take the oath of allegiance to the new constitution imposed by France. The French Army marched on Stans, the chief town of Unterwalden, and massacred the inhabitants. There were so many destitute children left as a result of this devastation that it was decided to open an orphanage. This institution was to operate according to a plan for a poor school already submitted by Pestalozzi and approved by the authorities. Pestalozzi was given charge of the institution and arrived in Stans on the 7th December, 1798.

Pestalozzi was delighted that his lifelong ambition and his attempts to acquire some influence on the education of the poor had at last found official government recognition. "I was so anxious to be able to realise the great dream of my life", he wrote, "that I would have

started work in the highest Alps almost without fire and water, if only to have a chance to begin".[1] In his "Letter about my time at Stans",[2] he said of his experiment: "My convictions were at one with my aim .... The power of the teacher must be that of the father in the purity of its exercise at home .... I wished my children to realise at every moment that my heart was theirs, that I was sharing their fortune, and that their joy was my joy. I wished above all to win my children's trust and to make them feel their dependence upon me".

There were fifty children at first but this number soon increased to seventy. When the difficulties of the initial period had been overcome, Pestalozzi's untiring and single-handed devotion to his task soon showed astonishing results. The two commissioners appointed to supervise the experiment were unanimous in their praise of Pestalozzi's achievement. The secret of his success at Stans lay in the children's devotion to their master. The lack of a definite plan in his teaching here was intentional; his method was to make use of existing circumstances, learning with the children and through them. Thus he held no discourses in order to teach the children morals, but seized all the occasions furnished by their daily life in order to convey a moral code to them. He wanted to awaken their latent faculties by a procedure he later described as "the result of a simple psychological idea". Whereas the traditional method of teaching started from the material to be taught, Pestalozzi started from the child and centred his education on the child. He tried chiefly to cultivate "the powers of attention, observation, and memory, which must precede the art of judgement and must be well established before the latter is exercised".[3] Whatever the children learned they had to learn thoroughly;

the cleverer ones were employed in teaching others.

Under the strain of the unremitting exertions of the work entailed at Stans, Pestalozzi became critically ill. It was a blessing in disguise when the French Army, in June 1799, having been severely defeated by the Austrians, took over the institute to house some of the exhausted troops. Pestalozzi was taken by friends to Gurnigel, an Alpine health resort near Berne to recuperate. His orphan school at Stans has been described as "the cradle of the modern elementary school."[4]

Work in the Poor School in Burgdorf

In July 1799, a place was found in Burgdorf, the second town in the canton of Berne, for Pestalozzi to continue his experiments. He started work in the Poor School which was provided for children whose parents were not full citizens. His task was to assist the schoolmaster there in teaching seventy-three boys and girls.

The conditions Pestalozzi found in this school were typical of popular education everywhere at that time. The schoolmaster, Samuel Dysli, was a cobbler by trade. The children repeated their lessons aloud to themselves most of the time, creating a terrific noise. Under Pestalozzi's direction they began to answer in rhythm and he made them spell out words orally before they were shown them in print. He began with the shortest words with only one consonant and one vowel, then went on to words of three or more letters. In writing and arithmetic too he spent a long time on the simplest combinations of letters and numbers before advancing to the next stage. He refused to let the children learn anything by heart which they did not thoroughly understand. Dysli

regarded Pestalozzi's efforts with distrust, considering them a "waste of time" when the children should have been learning their catechism. The parents held a meeting and refused to allow their children to be experimented upon.

Work in the Dame School in Burgdorf

Pestalozzi was removed to a small dame school run by a Miss Stähli. Here he carried on his experiments to "psychologise" education. From his birth, he argued, a child learns through sense impressions - nature teaches him. In the same way the teaching given by man should be "nothing else but the art of assisting nature's game for achieving her own development".[5] The course of instruction as well as the material objects which are to be its instruments should correspond with the developmental order of the child's faculties. At every stage the child should not be denied anything already within his capabilities, nor be burdened and confused by anything outside his present mental scope; teaching should thus be psychological. Most important of all, knowledge should first be acquired through sense impressions and only later be expressed in words.

At the end of the scholastic year, in March 1800, the Board of Education reported very favourably on Pestalozzi's teaching. Their report pointed out not only the remarkable progress of the children but also the suitability of the new teaching method, which "could be applied at the earliest age at which instruction is given in the family circle, by every mother, every child that is a little older than the beginner, and even by every intelligent servant in the midst of her household duties".[6] As a result of this report Pestalozzi was promoted to the

Second Boys' School, where he became the only teacher of about sixty children between the ages of eight and twelve.

Work in the Burgdorf Institute

At the end of 1799, as a result of war in Eastern Switzerland, a number of poor children were evacuated from the canton of Appenzell, accompanied by their teacher, Hermann Krüsi. Part of Burgdorf castle was made available as a school for these children. Pestalozzi was asked to take over the responsibility for the education of this group of children and acquired in their teacher his first assistant. He applied for the use of the whole castle and the government let him have the establishment rent-free. They also paid him a salary and were willing to support his assistants. Some boys from the Second Boys' School, others from Burgdorf whose parents were interested in Pestalozzi's experiments, together with the Appenzell children, formed the nucleus of the new institution. With the help of Stapfer, the Minister of Education, a "Society of the Friends of Education" was founded in support of Pestalozzi's enterprise. To make his ideas known to its members Pestalozzi wrote a short report called "The Method",[7] which begins with the words: "I seek to psychologise human education". At the same time he worked on a more elaborate account of his method, which later became famous under the title "How Gertrude teaches her Children".[8]

Shortly after Krüsi had joined Pestalozzi, he arranged for his his friends Tobler and Buss from Basle to come and help him in the new venture. The educational institute was formally opened in the autumn of 1800 for children of parents able to pay a definite though modest school fee. The intention was to combine with it a teachers' training

course of approximately three months. The original three assistants were soon joined by others. Visitors who came to observe the method often stayed on and took part in the teaching.

The day at the Burgdorf institute began at 5.30 in the morning and ended at 9 in the evening. The day was begun with separate prayers for the two denominations, and included more than eight hours of instruction in four periods, interrupted by a short break before meals and a half hour's playtime after them. The general aim of the teaching was to develop the children's own powers and faculties rather than to impart facts. Pestalozzi claimed to attempt nothing but "to lay the foundation to elementary knowledge".

For most lessons the children were divided into groups according to ability and not to age. Spelling and reading were practised with the help of movable letters. In arithmetic lessons pebbles and beans were used until the arithmetical processes were fully understood. Writing began with the drawing of rising and falling strokes and of open and closed curves. The most startling innovation was the use of slates and slate pencils instead of paper and pen; these permitted repeated corrections of the scripts to the point of perfection. Oral work was given to the whole group together; any child knowing the answer called it out, so that a lively but competitive spirit prevailed. The needs of physical education were met by gymnastic and singing lessons, where the boys marched, played or sang in a big hall or in the courtyard; in summer they bathed in the river. At least two teachers were always with them to share their meals and games. A happy relationship existed between teachers and pupils.

Pestalozzi himself no longer taught much now but guided his large community on the model of a family. He looked upon all its members as his children and they called him "Father". His main occupation at this time was to work out the principles of the new teaching method, which he embodied in his work "How Gertrude teaches her Children".

The book takes the form of 14 letters to Pestalozzi's friend Gessner, a bookseller of Berne. In the first three letters he sketches the circumstances which brought himself, Krüsi, Tobler, and Buss to the work; in letters four to eleven he states the results of his reflections and of his experience in the sphere of instruction on the purely intellectual side. The twelfth letter discusses the education of the physical rather than the intellectual powers, and the last two are concerned with the questions of moral and religious training. In this work Pestalozzi meant to show that by reducing knowledge to its elements, and by constructing a series of psychologically ordered exercises, even an uneducated mother could fulfil her natural duty of educating her children. The title of the work recalls Gertrude, his ideal mother. An observation is the base of knowledge, the child should first be exercised in the sensory examination of objects; after this he should be told their names and the names of their qualities. Before this second step, however, he should be trained in the accurate articulation of sounds which will make the pronunciation of words easy to him. Practice in the use of speech should proceed step by step with observation. These steps should be graduated on the principle of uninterrupted continuity, and each word as it is learned should be put into a sentence and repeated after the teacher.

With the publication of this work Pestalozzi once more achieved literary success. Visitors from all parts of Switzerland and Germany came to see "The Method" in application for themselves. Dean Ith, the government inspector, drew up a favourable report on the establishment at Burgdorf castle, on the strength of which the Helvetian government transformed Pestalozzi's establishment into a national institute. The report explained Pestalozzi's principles and noted with approval that no memory drill was involved in the teaching. Everything the children learned was, it noted, the results of the children's own observation and of their own experience.

On the 19th February, 1803, federalism was re-established in Switzerland and the restored government of the canton of Berne again took over Burgdorf castle as a seat of administration. The authorities offered Pestalozzi the disused buildings of an old monastery at Münchenbuchsee to set up his school. His stay here only lasted until October, 1804, when he left for Yverdon, where another castle had been made available to him.

Work in the Yverdon Institute

During the period 1805 to 1806 Pestalozzi was able to spend several quiet months engaged in literary work in a small attic in Yverdon castle, away from the bustle of the institute, working out his system of education in detail. He undertook further research into the general principles of his method and the development of the means of instruction, as well as the organization of educational institutes. The last concerned his never-forgotten desire to found a poor-school with a training course for elementary school teachers. In 1818 he did

in fact found a school for poor children at Clendy, a village very near Yverdon. The pupils were to remain in the orphanage for five years and be trained as teachers, but the original character of this enterprise was soon lost and the pupils of the orphanage were joined to those of the main institute in 1820.

As in Burgdorf, in Yverdon too the children's tasks were firmly prescribed. They had ten lessons daily, the first starting at six o'clock in the morning. The lessons included nature observations, woodwork, gymnastics and various games. Wednesday and Sunday afternoons were given over to long walks. In summer the boys went bathing, in winter skating and tobogganing. The fundamental principle of Pestalozzi's education, the encouragement of the child's natural gifts and powers was practised. "We try to use the subjects of learning which we teach more as instruments to train the intellect than as a means of expanding knowledge", is the key sentence in Pestalozzi's "Report to Parents and the General Public", published in 1807. The lessons were now given by specialists who had worked out their own subject in accordance with the Pestalozzian principles. Pestalozzi remained the head of the institute at Yverdon, but administration as well as instruction became more and more the concern of his assistants. Two important ones were Niederer, a Doctor of Philosophy and a minister who had joined Pestalozzi at Yverdon, and regarded himself as the philosophical interpreter of Pestalozzi's ideas, and Schmid, who gained a great reputation by his mathematical teaching and business capacity.

Pestalozzi carried on the institute at Yverdon for twenty years, despite various difficulties. Troubles arose in the institute from

differences among his assistants, "each disciple interpreted the master's doctrine in his own way".[9] On the 17th March 1824 Pestalozzi was obliged to declare publicly that it was now impossible "to fulfil the hopes which I have awakened in the hearts of so many generous philanthropists and friends of education".[10] The institute was finally closed in 1825.

Pestalozzi spent the last two years of his life back at the "Neuhof", where his grandson had already established himself. Here he took up his literary work again. In his "Swansong"[11] he reviewed his life and expounded his doctrines once more, and in "Life's Destiny",[12] he described the circumstances which led to the destruction of his institute at Yverdon. He died on the 27th February, 1827, and was fittingly buried not far from the village school in the churchyard of Birr.

Chapter Four - Prussian Education in the Eighteenth Century

Schools for the Children of the Artisans and Day-labourers in the towns, for the Peasants in the Country

In the eighteenth century in Prussia the educational needs of the poor children in the country as well as in the towns were often neglected altogether. Schools in the country, where they existed at all, taught only the rudiments of reading, writing, sometimes arithmetic, and the catechism. The poor children in the towns did not fare much better. The number of poor, non-paying scholars in the town "Lateinschulen" (Latin Schools) of the day was very limited. As the "Schreibschulen" (Writing Schools) were expensive, the result was that a great number of children grew up in the towns too with no education at all - except perhaps a knowledge of the catechism - and they either idled their time away or begged in the streets. In some of the larger towns so-called Poor Schools had been established in which children of parents of little means could receive free lessons and in many cases free books and writing materials. These catered for only a few of the many poor children.

Even the regulations of the Prussian kings on the education of their people, that of Frederick William I in 1736, and the "Generallandschulreglement" (General Code of Regulations for Rural Schools) of Frederick the Great in 1763, were only put into effect where the local communities were willing to allocate a reasonable sum of money to their schools.

The Teachers in the Elementary Schools

It was impossible for any schoolmaster to earn a living without exercising some other trade at the same time. It was usually this other occupation which was his real livelihood. An annual income of just over 30 thalers was about the most that a schoolmaster could earn. In 1774 it was ascertained that of 1597 teachers in the Mark of Brandenburg, 184 were receiving only 10 thalers, and 111 so-called "Winterschulmeister" (Winter Schoolmasters) were receiving only 5 thalers per annum.[1] The local communities, when they were exhorted to raise the pay of their teachers, frequently declared that the latter were not worthy of higher remuneration.

According to an ordinance of 1722, only tailors, linen-weavers, smiths, wheelwrights and carpenters were to be admitted to the office of schoolmaster. After a regulation of 1738 which further limited the trades which could take up schoolmastering, teaching in the elementary school became the virtual monopoly of the tailors. However, in 1771 Frederick the Great declared his opinion that "Schneiders schlechte Schulmeister seindt" ("Tailors are bad Schoolmasters"), and in 1779 went on to say that he would prefer to have disabled soldiers as schoolmasters. Now began the reign of the veteran, non-commissioned officers with their wooden legs in many of the schools of the realm. The social standing and esteem of the schoolmaster in Prussia was consequently not very high, although the schoolmasters of Saxony enjoyed a good reputation and were therefore in demand even in Prussia. Typical of the activities of the elementary schools of the eighteenth century were those reported by a Swiss schoolmaster in 1798: "Writing, Reading, Spelling, Learning by Heart.

Learning Old Styles of writing. Voluntary Arithmetic in Winter".[2] If learning of the catechism is added, these were to remain the educational aims and achievements of the Prussian elementary school until Pestalozzi directed his pedagogy towards raising the lower classes from their condition of ignorance and helpless poverty to an awareness of their latent capacities and powers, which he wished to cultivate for the benefit and ennoblement of all mankind. His aim was to transform the elementary school into a universal school, free alike to rich and poor.

Teacher Training

Teacher training institutes - the "Seminarium Praeceptorum", established by Francke in Halle in 1695, is to be regarded as the first of such institutes in Germany - were at first only established for the training of teachers for the higher schools. Of great influence was the "Seminarium Philologicum" founded in Göttingen by Gesner in 1737. Its members were all students of theology, for teaching was considered as a transitional stage before the more remunerative office of clergyman was attained. Even students who wished to study the ancient classics could only matriculate at institutes of higher education as students of theology. The famous philologist F. A. Wolf, when he became the director of the pedagogical seminary in Halle in 1783, took the revolutionary measure of drawing a distinction between the office of teacher and that of ecclesiastic. He specified that his seminary was only for philologists and "students of antiquity". These now became the successors of the "theologians" as teachers in the higher schools.

The State and Education

An important step in the same direction of limiting the influence of the clergy in education was taken at about this time. The idea of the state school was a legacy of the Reformation. In practice, however, the local communities had always had great independence and the clergy had always supervised the schools. Now the state finally began to use its power effectively. State authorities were established, which were entrusted with the supervision of all educational matters and which did not consist entirely of theologians. The state assured itself of a dominant influence from the outset by founding and directing teacher training institutes for the Lower Schools. These began to be established at the end of the eighteenth century with the support of educational leaders and philanthropists, though at first only on a very limited scale.

Chapter Five - Educational Developments during the Eighteenth Century in Prussia

The Idea of State Education in Prussia

By the end of the eighteenth century the idea of a state system of education was no longer a novelty in Germany, but it was still an idea rather than a fact. Compulsory attendance had been proposed by Martin Luther (1483-1546) at the Reformation. His proposals included the establishment of schools for boys and girls everywhere which would teach children for at least one or two hours a day. In several German states in the sixteenth century school systems had been established, including Württemberg in 1559. Compulsory attendance was enacted into law in Weimar in 1619, and Saxe-Gotha had passed a regulation in 1580 stating that the village sextons were to teach the children to read, write and to learn hymns. All these systems were only lay-provided; the purpose remained very much a Christian religious purpose. The Church remained the dominant guide in fact, through the agency of the Princes. National education in the modern sense had never been carried out on a wider scale until Prussia began to develop a state system in the eighteenth century.

The two kings of Prussia, Frederick Willian I (reigned 1713-1740) and his son Frederick the Great (reigned 1740-1786) were both interested in the development of adequate schools for the people, especially for the rural population, which constituted the largest and the most underprivileged part of the people. The Hohenzollern kings were benevolent despots; national education was to be developed for patriotic service to the state. Feelings of loyalty to king and country as well as the Church were to be

instilled and care taken that the lower classes were not educated beyond the needs of their station.

Prussian Education under Frederick William I (1688-1740)

A beginning was made to compulsory education on a national basis with the decree of Frederick William I in 1717. This recognized that elementary schools were impossible under the existing circumstances in many rural districts, but it required that where schools did exist, children should attend daily in winter, and whenever they could be spared from the home in summer, which should be at least once a week. This applied to all children between the ages of six and twelve. They were to be given lessons in reading, writing, arithmetic and the Bible at school. The state was still immensely dependent on the help of the Church in the running of the schools. Gradually it was to become the dominant partner.

The king also set actively to work to establish rural schools wherever they were needed, giving land and money for this purpose. Within the space of a few years he brought about the establishment of more than a thousand elementary schools. The almost insurmountable obstacle which he encountered was the lack of suitably educated teachers. Reliance had to be placed on the tailors and others who undertook school-teaching in order to bring in a little more money. The king urged the better recruitment and training of teachers, a reform which was especially difficult to put into practice in that era. It was significant that the king assumed that it was the business of the state to provide for the education of the people, instead of leaving this matter entirely in the hands of the local and ecclesiastical authorities.

Prussian Education under Frederick the Great (1712-1786)

On ascending the throne Frederick the Great announced that it was his mission "to further the country's well-being, and to make every one of our subjects happy". He continued to pursue the policy of making the internal development of Prussia and the exploitation of her natural resources a chief consideration. His father had bequeathed Prussia "a centralized financial system and internal administration, a code of civil and administrative law, a generally sound economy, in which new industries flourished, and a standing army of about 90,000 based upon a form of conscription in which every military district was required to furnish a quota of men in proportion to its population".[1]

It was only natural that the new monarch's rule should include the development of a national school system as part of the general social reform, particularly as he had expressed his interest in the welfare of all classes, including the poor. In continuing the educational work begun by his father, Frederick the Great went a long way towards realizing the ideals of such educational workers as Basedow, Rochow, Pestalozzi and others. This he was able to accomplish by issuing several decrees concerning education.

The most significant of his decrees was the General Code of Regulations for Rural Schools, issued in 1763. This act laid the foundations of the Prussian elementary school system; many of its provisions were reproduced in later enactments. Several sections of the Code were significant:

Section 1

All children were required to attend school from the age of six to thirteen.

Section 2

Alternatively, they were to attend school until they had learned the principles of Christianity, could read and write well, and could pass an examination required by the Consistory, a body of clerical and lay officers appointed to superintend ecclesiastical affairs in any district.

Section 3

If a child proved itself proficient in the prescribed subjects before the age of thirteen, it was permitted to stop attendance at school, but only on receiving a proper dismissal certificate issued by the teacher, preacher, or inspector.

Section 4

Where it was customary to employ children to look after cattle in the summer, one common cowherd was to be employed so that the children might attend school. If the community was too scattered, the children were to take turns, so that each child would get to school at least three times a week.

Sections 5, 6, 7 and 8

Definite school hours were prescribed. Unmarried young people beyond the school age were to attend a continuation school kept by the schoolmaster on Sunday. Tuition fees were regulated, and if parents were too poor to pay, these fees were to be paid from the Church or Poor Funds.

Section 14

No one was permitted to teach unless he had been examined and approved by the inspector and admitted by the preacher.

Section 25

The village preachers were required to visit and inspect the schools twice a week, and to hold conferences with the teachers with a view to improving their methods of instruction.

Section 26

The Lutheran superintendent and inspector of each administrative district were to inspect all the schools under their direction at least once a year and to report to the central authority.

These summarized sections of the Code indicate the importance attached to the king's attempts to improve the condition of rural elementary education in Prussia. The execution of the law was still left in the hands of the Church authorities, but the authority of the state was now evident.

Unfortunately the law could not be effectively enforced in many places, despite the fact that the king supplemented it with a number of additional regulations intended to decrease "the great stupidity of the peasant children". There was opposition from the teachers, most of whom were too ignorant and uneducated to be eligible under the new regulations. There was opposition from the farmers, who wished to use the children to work on their lands. There was opposition from the nobility who viewed the law with alarm, maintaining that "like cattle, the more stupid the peasant, the better will he accept his fate". The king himself was not completely out of sympathy with some of the views expressed by the nobility.

Despite the reforms regulating the education of the lower classes, his chief interest lay in educating higher officials rather than peasants. He observed: "In country places a little reading and writing will be enough, for if the peasants learn too much they will want to move into town and become clerks".[2]

In line with this policy he undertook the reform of the secondary schools in Prussia, the old "Ritterakademien" (Knightly Academies) and the classical "Gymnasien" (Grammar Schools). The latter went back to 1538, the year in which Johann Sturm established the first Protestant humanistic Grammar School in Strasbourg. This nine-year school had become the leading secondary institution of learning in Germany.

The reform was undertaken at the king's direction by Johann Georg Sulzer (1720-1779), a scholar and educational thinker who was a native of Zürich like Pestalozzi. He had left Switzerland to become one of the scholars and advisors attached to the court of Frederick the Great. In 1745 had appeared Sulzer's "Essay on the Education and Guidance of Children", in which he emphasized a psychological approach to education, dividing childhood and youth into six stages. His plan included sport, manual skills, and science based on observational methods. He proposed that schools should be supported by public taxation and that they should educate all children from the age of six to sixteen without regard to social class or distinction. The influence of many of these ideas was to be seen in the secondary schools in Prussia, and in the legislative measures undertaken by Frederick the Great. In many respects Sulzer anticipated the educational ideas of Rousseau, who was also attached to

the king's court from 1762 until 1765, and Pestalozzi. The view that education should be based on the maturing and cultivating of the child's instincts and capacities was to be of large practical influence in the development of educational theory and practice during the late eighteenth and early nineteenth century.

One significant element in the reform of the secondary schools in Prussia was the introduction, on the advice of another educational thinker, Friedrich Gedike (1755-1803), of the "Abitur" or Grammar School Leaving Certificate. Passing this severe comprehensive examination was required for admission to a university. This reform was effective in raising scholastic standards at both secondary school and university level. If the government had provided the necessary financial support, the lower schools might also have benefited and been improved more rapidly at this time. Under the existing conditions, effective reform in elementary education often depended upon the initiative of educational pioneers such as Basedow and Salzmann, and humanitarian landowners such as von Rochow.

Chapter Six - Educational Pioneers in the Eighteenth Century in Germany

Johann Bernhard Basedow (1723-1790)

Basedow had attracted attention by his work as a teacher in Altona. He was a leading agitator in the movement for a national education free from the domination of the Church. Taking advantage of the interest in education which the appearance of Rousseau's "Émile" had created, Basedow issued in 1768 an "Address to Philanthropists and Men of Property on Schools and Studies and their Influence on the Public Weal". It was an appeal for funds to enable him to prepare textbooks and to organize a school providing an education quite different from that given in the schools of the day, which were dominated by the clergy. He advocated the kind of education proposed by Rousseau, an education that would include a large amount of physical exercise, be suited to the child's growth and experience, and be based on observational methods. The appeal also included the two important suggestions that schools should be open to children of all religious denominations, and that a National Council of Education should be established to have charge of all public instruction.

This appeal met with great success. With the aid of the subscriptions which flowed in from many quarters, Basedow published a book on method, and a manual of information called "The Elementary Work", which was a collection of all the knowledge necessary for the education of children up to the fifteenth year to be used by parents, teachers and private tutors. It was accompanied by a volume containing one hundred engraved pictures illustrating the scientific and practical subjects discussed in the manual. These books were very successful and were

widely acclaimed.

In 1774 Basedow opened his model school, the "Philanthropinum" (so-called because it was to educate "friends of humanity"), at Dessau under the patronage of the ruling prince. He introduced a number of the new ideas on education into his institute. The relations between teachers and pupils were friendly, there were group activities, pupil self-government, handiwork and craftwork, physical education and field excursions. Basedow also believed strongly in the importance of text-books in teaching. His school was never very large and perhaps strangely met with only limited success, owing to Basedow's own incompetence and his inability to get on with his assistants. Despite this, the popularity of his many publications, in which amongst other things he urged the adoption of the new educational ideas and the establishment of competent teacher training institutes, resulted in the founding of numerous schools on the Dessau model in both Germany and Switzerland.

Christian Salzmann (1744-1811)

The most successful of these schools was that established by Salzmann, who had been employed by Basedow for a short time. After disagreements with the latter, Salzmann decided to found a school of his own. He was able to secure a location ideal for the study of nature and geographical features on a farm near the Thuringian Forest. He opened this school at Schnepfenthal in Saxe-Gotha in 1784 with the encouragement and help of the ruler, Duke Ernest II. His first pupil, Carl Ritter, was later to become the founder of the "natural method" in geography.

The number of pupils was generally kept below sixty, in order to maintain the spirit of family life. In addition to providing a certain amount of traditional school work, many of the most important recommendations of Rousseau were carried out by Salzmann. A large amount of physical training, including swimming and skating, was provided. Johann Friedrich Guts Muths (1759-1839), "the grandfather of German gymnastics", was an instructor at the school for many years. Most of the children spent about eight hours a day in study and several in recreation. The younger children were occupied for three hours a day in the study of natural history and "object lessons". School gardening and manual training, as well as many organized excursions were provided. The study of religion was not omitted, but religion was approached by means of moral stories and nature study and the formal learning of the catechism was abandoned.

Salzmann carried out in successful practice the ideas of the new thinking on education, an education adapted to the needs of the child. The school prospered and served as a viable model of the possibilities of a better sort of education. With its experimental methods it can be regarded as the most successful forerunner in practice of the later reforms brought about by Pestalozzi.

Baron Eberhard von Rochow (1734-1805)

Although the schools of Basedow and Salzmann were intended primarily as boarding schools for the instruction of the children of the middle and upper classes and had little immediate effect upon public education, it was not long before the reforms which they embodied were

attempted to some extent in the ordinary elementary schools. The first experiment in this direction was undertaken by Baron von Rochow, an old Prussian army officer turned canon, in schools which were established for the children of peasants living on his estates in Prussia.

It was during a particularly bitter winter that it had suddenly occurred to Rochow that the only way to improve the conditions of the peasants was to provide them with a better and more practical kind of school training which could be the basis of more intelligent methods of farming and living. As the first step in his efforts, he wrote a book in 1772 intended to aid teachers in carrying out his ideas of reform. It was entitled: "Attempt at a Schoolbook for the Children of the Rural Population or for Use in Village Schools".[1] Rochow had been inspired by the publications of Basedow and many of the latter's ideas were reproduced in this work, in which Rochow demanded free education for the people.

The next step was a practical one. In the same year he opened his own model school on his farm at Reckahn. He taught in the school himself at first and then appointed as teacher a young man who had been his secretary for six years. The school soon had over seventy pupils and the novel but successful method of instruction practised here attracted visitors from all over Germany and other countries. The Prussian government even sent official investigators to examine the work; all their reports were favourable. They were particularly impressed with the ease and skill with which the teacher conducted "lessons on things" to a school of seventy-three children. This was accomplished by means of questions which kept up a continual conversation

between the teacher and the class. In all instruction every point was made clear and significant to the children, not by lengthy explanations but by connecting it with their own experience and discussing its application in the practical affairs of their lives.

Similar schools were opened by Rochow on his other estate and their influence was soon evident in the changed social life of the region. This change was described by Rochow himself: "Today at Reckahn the peasants have lost their bestial stupidity thanks to the influence of the children; they believe in the physicians rather than in the sayings of old women. The mortality has diminished on all my estates. Attendance at school, in summer as well as in winter, is now one of the things the parents most prize, and often thank me with tears in their eyes".

Rochow did not remain satisfied with the local results of his educational efforts. To assist in the maintenance of similar schools in other parts of Germany, he prepared two reading books for the use of the lower classes, "The Peasant's Friend",[2] in 1773, and "The Children's Friend"[3] in 1776. The latter became widely used as a textbook. It consisted mainly of short instructional stories or discussions relating to agriculture, home life, and good citizenship and also contained two rhymed prayers for little children. In 1779 Rochow published a book entitled "The Amelioration of the National Character by Means of Elementary Schools".[4] In this work he advocated universal education for national reasons instead of merely religious or utilitarian ones. He wrote that without a national education it was impossible to have a national character, and that this was precisely what was lacking in Germany. A visitor to his school suggested in a report that it was not enough to admire and

praise the founder of this school, his work should be imitated not only in the Mark of Brandenburg, but also in the whole kingdom.

The main emphasis in Rochow's school was on training for practical affairs, but he also provided training in Christian morality. This was achieved without the usual dull memorizing of the catechism, which constituted the religious teaching of the ordinary elementary school. Thus his experiment, although supported by the government of Frederick the Great, aroused the opposition of the clergy. The reactionary government of Frederick William II which followed did not continue to support Rochow; consequently his efforts had no more result than that of once more attracting the attention of Prussian statesmen to the necessity of organizing a system of instruction for the people under the direct control of the state. Rochow's experiment had at least demonstrated to them the possibility of such an organization.

Chapter Seven - Prussian Educational Developments in the Late Eighteenth Century

The Creation of a Central Administrative School Board

In 1787 a Central Administrative School Board ("Oberschulkollegium"), which was to have direction of all the school affairs of the kingdom was created in Prussia. Although this development in Prussian education occurred after the death of Frederick the Great, it can be seen as the culmination of the tendencies of his reign. The creation of the Board had been suggested by the Prussian minister Zedlitz, who had been appointed as the head of the Department of Lutheran Church and School Affairs by Frederick the Great in 1771. It has already been noted that a similar suggestion for such a "National Council of Education" had been contained in Basedow's "Address to Philanthropists" in 1768. Zedlitz was an enthusiastic champion of Basedow's ideas and was especially influenced by Rochow's experiments in applying these ideas to the improvement of rural education. Zedlitz kept up an active correspondence with Rochow and consulted with him concerning many of his own ideas and plans for national educational reforms. In 1788 Zedlitz wrote: "It is wrong to let the peasant grow up like an animal, having him memorize only a few things which are never explained to him. His instruction should include besides religion, reading, writing and arithmetic, also some experience with mechanics, the study of nature and dietetic rules, and some knowledge of government. Certain industrial activities like spinning and weaving should also be taught in the country schools".[1]

In his suggestions for the establishment of the Board, Zedlitz expressed the opinion that such a board, with some degree of expert

permanent membership, would be much more competent to direct school affairs than the Consistories of the Church under a king's minister, as was the existing arrangement. The establishment of the Board, with Zedlitz as president, represented a transition from Church administration of schools under state direction to expert state administration by a specialized authority.

Zedlitz held office for only two years under the new king; Frederick William II (1744-97) was the direct opposite of Frederick the Great in his general attitude towards the education of the people. Instead of aiming to broaden and secularize the elementary schools, he maintained that their chief function should continue to be the teaching of religion, and that he would do his best to see that they were protected from the new ideas of rationalism, naturalism, and deism. There followed a period of reaction during his reign (1786-97) when no further progress was made in elementary education until the reforms at the beginning of the nineteenth century. However, one other step in the preparation for the Postalozzian movement was to be taken.

The Prussian Legal Code ("Allgemeine Landrecht")

Under Frederick the Great was begun the codification of the fundamental Prussian civil law, known as the "Allgemeine Landrecht". The greatest scholars and jurists of Germany were engaged in this undertaking, the results of which were not made public until 1794. Prussia was the first country in which the plans for national improvement and development consistently included the industrial and educational development of the people as the essential factor. Thus the twelfth chapter of the Code was devoted entirely to education. In it were formulated the

culminating principles of the tendencies which had been developing during the century. Real state responsibility started with this Code. It set out in detail the extent to which the state would control schools:

Section 1

"Schools and universities are state institutions, charged with the instruction of youth in useful information and scientific knowledge".

Section 2

"Such institutions may be founded only with the knowledge and the consent of the state".

Section 9

"All public schools and educational institutions are under the supervision of the state, and are at all times subject to its examination and inspection".

TheCode also recognized the equal rights of both Churches, Lutheran and Catholic. While religious education remained an essential part of the curriculum, state schools had to be open to all children, whatever their religious affiliations. Moreover, children of a different religious belief from that taught in the public school they were attending could not be required to attend the religious instruction offered. Within the local school communities that were established, the provision for school support was made a common duty, all heads of households in a given community being required to contribute whether they had children or not, and even if they differed in religious belief from that taught in the public schools. It was made the duty of the parents to send their children to school or to educate them at home from the age of six onwards. The length of compulsory schooling was not fixed in years, but each child was

to stay at school until he had mastered "the knowledge necessary for every sensible person according to his station in life". No teacher was permitted to assume office until he had passed an examination and had been properly certificated. Teachers had to satisfy the Church authorities as to their religion before admission to a teaching post. They were to be paid out of the local school taxes. The state and the Church now had a common responsibility for the good conduct and the upkeep of the schools, although educational provision still remained the responsibility of the parish priest. Thus the Church still remained central in the administration of education, but now as the agent of the state.

Despite the personal interest of the Prussian kings in education and the pressure brought about by the educational enthusiasms in Germany and Switzerland, most of the advanced measures for educational reform in the eighteenth century in Prussia remained paper reforms to a large extent until the beginning of the nineteenth century. There were many difficulties of enforcement, added to the unreceptiveness of Frederick William II to the new ideas on education. However, the enlightened views of the eighteenth century educational reformers, including Basedow, Salzmann, von Rochow, Zedlitz, and the Prussian kings Frederick William I and Frederick the Great had furnished the fundamental basis for the development of Pestalozzi's ideas on the education of the people and their teachers and for the application of these ideas in Prussia in the early nineteenth century.

Chapter Eight - Pestalozzi's Writings in Prussia

By the publication of the first part of "Leonard and Gertrude" in 1781, Pestalozzi first won acclaim and made his ideas on elementary education known in Prussia. Here, as well as in the author's native Switzerland, the work achieved great popularity. The healthy ideas contained in the movement of Philanthropism and many of Rousseau's ideas were preserved and found their further development in Pestalozzi's teachings about a common education. He based his education on a study of child development, on the cultivation of the child's instincts and capacities. "Education, instead of merely considering what is to be imparted to children, ought to consider first what they may be said already to possess, if not as a developed, at least as an involved faculty capable of development".[1]

The experiments of Basedow, Salzmann and von Rochow and the dissemination of their doctrines had prepared the ground in Prussia for an almost universal acceptance of the new trend in educational theory. This new theory of the elementary school was further developed with the foundation of the school by the schoolmaster Glüphi in "Leonard and Gertrude". In the novel the young schoolmaster is shown to be the only person who can effect any basic improvement in the conditions governing society. It had been the sight of the educational activity of "the great mother" Gertrude that had seized Glüphi to such an extent that he had exclaimed: "I must become a schoolmaster in Bonnal".[2] In Gertrude he had a model for his teaching activity: he lets his school be organized by her. He links the instruction with work, in order to link the school with life and to prepare the pupils for life; as the inhabitants of Bonnal

work at cotton spinning, the school there becomes an industrial school, as Pestalozzi had attempted on the "New Farm".

It was Pestalozzi's main concern, however, to bring to the fore the educative force of life itself. To the school he allocates only a helping, secondary and complementary function. The home, the family, village life and work, the duties and commitments involved in personal relationships, these to Pestalozzi achieve "education", they lead the child into the way of truth. Only where life itself cannot fulfil some important function does the school provide some useful aid and lend a hand in the educative process. In this critical epoch of transition from an agrarian to an industrial economy, the school becomes an absolute necessity as an aid to education for life, at a time when moral and intellectual degeneration are rife. The school instructs the mind, it deals with language, number and form, with images, symbols and thoughts. These are new times with their own needs, when a new concept of education is urgently required, when, as Pestalozzi believed, school-learning had become indispensable for even the common people. It was his concept that education through life in the home, at work and in public affairs, together with education at school were to form a whole, to help a man master his God-given task in life, to help him to a full realization of the truth and of his true self. In the novel education is, therefore, from the outset intimately connected with the home and directly suited to the duties the child will probably have to fulfil in the future. Moreover, no limit is set for the more talented to develop their capacities to the full.

By 1801, when "How Gertrude teaches her Children" was published, Pestalozzi's educational ideas had broadened and deepened and he had finally

produced a most effective means of teaching large numbers of children to read, write and add, the result of his early educational experiments in Burgdorf and Stans. Pestalozzi realized that a comprehensive scheme of education must take proper account of the nature of the child and the adult, as well as the nature of the social structure in which the adult's life is to be lived; he meant above all to be a practical educator. A good home was to his mind the ideal educational institution, because it is the centre of parental love and active cooperation for the common welfare. Such a home, as found in "Leonard and Gertrude", is often, however, an ideal hardly to be realized; moreover, a home cannot give the range of education which a large and complex society requires. Under such circumstances schools become necessary, although they must be modelled on the good home in spirit and discipline, indeed the spirit of a well-regulated home should dominate the school. The teacher is "in loco parentis" and must be guided by his love for the children under his care. The discipline, though kind, must be firm. The primary aim of the school is the harmonious development of all the child's powers, to produce well-adjusted men and women; it is only a secondary aim to train future citizens and workers. The emphasis placed by Pestalozzi on the reform of the elementary school through the discipline of a "thinking love" was one of the most valuable factors in the widespread influence of Pestalozzianism.

Pestalozzi's new education was to be based on experience. Since the child did not already have this, experience was to be provided in home and school. Instruction was to be given mainly through the method of sense-perception by graduated activities. The stages of this system were:

confused sensations, clarity and description, definition and classification. All instruction was to be "psychologised", based on the psychological development of the individual. This meant that the teacher would have to start with the simplest elements of each subject or area of skill and would have to follow the natural order of child growth and development. Involved in this process would be the grading of pupils, the presentation of subject matter adapted to the child's stage of growth, the arousal of his interest and the enlistment of his self-activity.

Pestalozzi conceived the plan of a liberal education for the common people in the elementary school. This education was to be social and universal, to bring about the regeneration of the lower classes, who were the most neglected section of the people and usually living in desperate circumstances. This new education was to rouse their will and revitalise their powers. Through education the masses were to become true men and women, free and noble. Schools faced with such a task would require teachers who had the qualities they were to instill and had to be properly trained for their task. Teaching itself was to be regarded as a skilled occupation and moral vocation. The school curriculum was to be expanded, particularly along scientific and practical lines using the method of sense-perception. It was to become a curriculum based on activity and experience. Pestalozzi wrote: "I... desire to facilitate in a general manner the acquisition of the elements of all arts and sciences (by) the lower classes, and to open to the faculties of the poor and weak the doors to art, which are the doors to humarity, and, if I can, burn down the barricade which, in spite of the empty boasts of our vaunted general enlightenment, puts the middle classes of Europe,

with respect to individual power, far behind savages, in excluding ten men out of eleven from the right of every member of society to instruction, or at any (rate) from the possibility of making use of that instruction".[3]

Chapter Nine - Pestalozzi and Prussian Educational Opinion

After the early success of "Leonard and Gertrude" and the renewed interest brought about by the publication of "How Gertrude teaches her Children", the volume of educational literature concerning Pestalozzi's work which appeared at the beginning of the nineteenth century in Prussia is evidence of the intensity of interest in his experiments and ideas. "The literature of educational theory and practice of a less general and scientific character which had already begun to appear in Germany increased enormously. Men who had seen the work at Burgdorf were keen to describe what they had seen, or to apply what they had learned to the special problems of their own country".[1]

It is difficult to ascertain exactly when the educated general public in Prussia took more thorough cognizance of Pestalozzi, his writings and his work. As far as it can be assessed, it was the "New Berlin Monthly Periodical",[2] under the direction of Biester, which first drew attention to him and continued to do so for some time. From Öhringen in Franconia, where he resided as Prussian Councillor of the Exchequer, Justus Gruner, the later friend of the Prussian Minister von Stein, issued on the 15th December, 1802, an enthusiastic "Declaration and Demand for a Subscription for the Pestalozzian Schoolbooks"[3] in the periodical. He refers in this publication to reviews in the "General Newspaper"[4] and the "German Mercury"[5] of December, 1801, enumerates the main works of Pestalozzi, imparts the main points of Dean Ith's report, and asks: "Does it need more, to represent the general importance of this educational discovery? Anyone who desires to investigate coldly

and precisely, let him convince himself by Ith's painstaking report. Anyone who needs to arouse enthusism for the good cause, let him read Pestalozzi's own work. Sincere, powerful, and noble is his style, like his character... That his great work should achieve the great purpose in view, that is surely the warmest wish of everyone who takes a genuine interest in the true well-being of humanity. Pestalozzi himself has no other wish, for which he has laboriously sacrificed a great number of terrible years. Not so that he might reap the harvest, but that humanity should enjoy the fruits of his precious seed".[6] The public notification of Pestalozzi's Elementary Books,[7] the review continues, is thus a pressing need. "For in this way not only the introduction of this method, which is based on the greatest general applicability, will be made possible, but also its more detailed exposition and improvement".[8] Such an enterprise would be no publishing venture for the author or publisher, but would serve the greatest possible diffusion of the great cause. Pestalozzi himself could not defray the considerable expense involved in such an enterprise. It was only his most ardent wish that his work should be safeguarded. Any funds remaining were to be used for the improvement of his Burgdorf Institute and for the establishment of a schoolteachers' seminary, in which young men were to be trained as elementary school teachers according to his method.

The publisher of the periodical, Biester, too, refers to an article by von Voss, the Prussian Minister who administrated the Polish Provinces, of the 11th January, 1803, in which extracts from Ith's report were published, and recommends subscription. With regard to the influential position of this then most eminent Berlin periodical, this

demand undoubtedly did not remain without success, especially as publications during the following years repeatedly carried information and articles about the method. Thus Hinly, a Councillor in the Prussian War Department, published in the March issue of 1803 an article called: "An introduction to the Pestalozzian Method of Instruction".[9] He already quotes Herbart's work: "Pestalozzi's Idea of an ABC of Sense-Perception",[10] and develops intelligently and intelligibly the nature of the method, the basic principles of which he characterizes as: "See and understand, and show afterwards, that you have understood",[11] instead of the usual method practised in the elementary schools of the country: "Listen and remember and recite".[12] This article appeared again at a later date in 1803 in an expanded form under the title: "Attempt at an Introduction to the Basic Principles of the Pestalozzian Elementary Instruction".[13]

Niemeyer, a famous writer on educational theory, contributed a pamphlet describing his attitude to Pestalozzi's doctrines called: "Contributions to the Criticism of Pestalozzian Principles and Methods of Instruction".[14] He closes his work with warm appreciation and enthusiasm: "Anything which awakens such a widespread interest as Pestalozzi's educational ideas have done, must necessarily contain, if we can only view it as a whole, much that is both true and useful". His final words are: "The influence in this case can only be for good, and that in the highest degree, if men will look to the spirit rather than the letter".[15]

Chapter Ten - Pestalozzi and Educational Theory in Prussia

It was at Burgdorf that the stream of famous German visitors, including private individuals and Government officials, began. They swiftly effected the spread of Pestalozzi's ideas to Germany. Amongst the first of these private German citizens and one of the two most influential of Pestalozzi's disciples was the distinguished educational thinker, philosopher and mathematician, Johann Friedrich Herbart (1776-1841). Herbart first visited Pestalozzi in 1799, when the latter was still in the Dame School of Fräulein Stahli in Burgdorf, on his return from Märchlingen in Switzerland, where he had just spent two years as tutor to the three sons of the local bailiff, von Steiger. Here he made a special study of Pestalozzi's methods. An account of his impressions of Pestalozzi's work was given in an address he delivered in Bremen to a group of ladies interested in Pestalozzi's work, in which he said: "The whole field of actual and possible sense-perception is open to the Pestalozzian method; its movements in it (this field) will grow constantly freer and larger".[1] His commentary on the Gessner letters, entitled: "On Pestalozzi's most Recent Publication: 'How Gertrude teaches her Children'",[2] appeared in a periodical in 1802. In the treatise he defended several practices in Pestalozzi's school, about which some questions had been raised. He made the suggestion that Pestalozzi's sense-perception instruction in arithmetic should be supplemented with a study of triangles. This idea he elaborated in a later publication in 1802, (second edition 1804), in which he maintained that mathematics is the key to training in sense-perception and drawing. The book had the title: "Pestalozzi's Idea of an ABC of Sense-Perception". Herbart's publications maintained the great

interest in Pestalozzi. He took a leading part in the spreading of Pestalozzi's doctrines throughout Germany.

From the beginning Herbart was attracted by Pestalozzi's ideas on sense-perception, as is shown by his immediate commentary on these ideas. He interpreted and applied Pestalozzi's methods in a broad way, later creating a science of education on the basis of his elaborations. In 1801 Herbart had paid a second visit to Pestalozzi; he praised the grading of the lessons in Pestalozzi's school, as well as the thorough mastery of the elements which the pupils achieved. Like Pestalozzi, Herbart felt "that to give our children the feeling which comes from clear comprehension was the true object of instruction, and that the only means of attaining this lay in a perfect graduation of the subjects of instruction, a graduation which should satisfy from every point of view".[3] "On the point of view from which Pestalozzi's method of instruction should be judged", he says, "Pestalozzi is especially wanting in respect of sound scientific background, and still more in respect of the cool-headedness necessary to the use of a scientific method or even for the successful mixture and adaptation of learned generalizations out of which orderly prescriptions might have resulted, such as would have been of immediate service to us who would learn from him his art. He cannot, therefore, object to others attempting to set forth some parts of his method in a more orderly fashion, if he has any hope of its becoming widespread".[4]

Herbart was thus able to give more definite form to the vague intuitions of Pestalozzi, and to organize them into a system capable of practical interpretation. It was probably his active support of the

Pestalozzian principle that secured him the nomination to the chair of philosophy at Königsberg in 1808. Here Herbart conducted a pedagogical seminary for advanced scientific consideration of educational problems, as well as a small practice school of about twenty children, which provided opportunities for the experimental investigation of methods of teaching. Herbart himself taught mathematics in the practice school for some time.

Pestalozzi's Influence on Herbart's Educational Theory

Like Pestalozzi, Herbart emphasized moral training. That is, he emphasized the same function of education as did Pestalozzi in his plans for individual reform and social regeneration through education. As Pestalozzi had planned, so with Herbart moral and religious training were to work together to develop the right insight, sentiments and habits.

In the same way as Pestalozzi, Herbart stressed the idea of many-sided development, but formulated his idea of this in terms of interests as the aim of instruction. "The ultimate purpose of instruction", he says, "is contained in the notion, virtue. But in order to realize the final aim, another and nearer one must be set up. We may term is many-sidedness of interest. The word 'interest' stands in general for that kind of mental activity which it is the business of instruction to incite".[5] He emphasizes the active element in interest: "Interest means self-activity. The demand for many-sided interest is, therefore, a demand for many-sided self-activity".[6]

Similarly to Pestalozzi, Herbart applied his formulation of the aim of instruction to outlining the subject matter of instruction in terms of interest. Whereas Pestalozzi's analysis of experience to

obtain the fundamentally different kinds of material was a classification into language, number, and form as including the essential elements in elementary education, Herbart divided the subject matter of instruction into two main groups, corresponding to his two main classes of interests: the scientific, (experiences with 'things'), and the historical or social (experiences with 'people'). Herbart maintained that Pestalozzi's great contribution to education was to proceed to give children experiences instead of assuming that they already had them. The Pestalozzian phase of "apperception", that is, providing a fund of real experiences for understanding verbal instruction in teaching, was expressed by Herbart in the following words: "Instruction is to supplement that which has been gained already by experience and by intercourse with others; these foundations must exist when instruction begins. If they are wanting they must be firmly established first".[7]

With regard to general method, Pestalozzi had established the principles that all instruction should be based on sense-perception; that children should have clear ideas from such experience and be given training in expressing them orally; that in teaching any subject one should proceed from the simple to the complex, from the concrete to the abstract, from the empirical to the rational. The application of these methods was stated by Pestalozzi in the following words: "When a child's sense impressions have resulted in clear and settled ideas, and when he can express these ideas in speech, he feels the need of examining, separating, and comparing them; this is a pleasure to which life itself invites him, and in which he finds the surest aid for development of his judgement and power of thinking".[8] Basing his views on method on

Pestalozzi's fundamental ideas, Herbart said that facts needed methodical treatment, involving four steps: analytical conversation with children concerning their experiences; establishing a number of examples clearly in the mind; formulating the general processes involved; giving children practice in applying the general rule or principle reached in this way. This process involved the building up of associations between subjects instead of merely between principles within the same subject.

Herbartian influence affected especially the methods of organizing moral instruction based on the study and teaching of history and literature, particularly in the lower classes of the Prussian elementary schools.

The second of the two greatest disciples of Pestalozzi who helped to spread his ideas to Germany was the educational thinker Friedrich Wilhelm August Froebel (1782-1852). He was a more intimate disciple even than Herbart. In 1805, on the advice of Gruner of Frankfort, he paid a brief holiday visit of two weeks to the Yverdon Institute at the start of its most brilliant period. Of Pestalozzi's influence on himself he wrote: "It soon became evident to me that 'Pestalozzi' was to be the watchword of my life".[9] In 1808 he took three boys of a wealthy family to whom he was tutor and entered them in Pestalozzi's school, which at this time was at the height of its fame. He came to study under Pestalozzi his recently adopted profession of teacher. He spent two years at the Institute, studying Pestalozzi's methods as they were organized in the various classes. After his first visit he had come away with conflicting judgements; the curriculum had seemed to him to be a patchwork full of gaps, the teaching sometimes good and sometimes

mechanical, often with a lack of system. During his second prolonged visit, however, he had frequent consultations with Pestalozzi and praised the work in sense training and in language, as well as the emphasis which Pestalozzi placed upon the part of the mother in the young child's education. In 1809 he wrote an enthusiastic appreciation of Pestalozzi's methods, concluding: "And thus the Pestalozzian method sets man forth on his endless path of development and culture on the way to knowledge, bound to no time and no space, a development to which there is no limit, no hindrance, no bounds".[10] Pestalozzi was instrumental in directing Froebel's mind to infant development. The effects of the careful study of the system of music instruction used by Pestalozzi's assistants Naegeli and Pfeiffer which Froebel made during his stay at Burgdorf can be seen in his later ideas for his kindergarten. He was also influenced by the work in drawing carried out under the direction of the drawing master, Buss, and the work done in practical subjects. In 1816 Froebel organized an experimental school similar in character to Pestalozzi's schools. The way for the establishment of his kindergarten was paved by humanitarians roused by Pestalozzi who founded infant schools in many parts of Germany during his lifetime.

Pestalozzi's Influence on Froebel's Educational Theory

Both Froebel and Pestalozzi wished education to begin in the earliest years; Froebel was influenced by his Swiss master to make a new attack upon the problems of early education. Froebel was of the opinion that Pestalozzi's system of early training and the happiness and industry which resulted would save children from many faults. His own concept of the kindergarten was based on a complete philosophy of

child development; children were to grow as naturally as plants under the care of an expert gardener. In his work, "The Education of Man",[11] which appeared in 1826, he reiterates many of Pestalozzi's fundamental contentions. In the second sentence of chapter VI of this work, which is headed: "Connection between the School and the Family and the Subjects of instruction it implies", Froebel says: "The union of the school and life, of domestic and scholastic life, is the first and indispensable requisite of a perfect human education of this period [i.e. boyhood]". The book is throughout reminiscent of Pestalozzi. Froebel's "Come, let us live with our children" precisely reflects what he had seen in practice at Yverdon. With regard to the different subjects of instruction, Froebel takes up many points which imitate many of Pestalozzi's practices directly.

Froebel's chief improvement on Pestalozzian methods was that he made practical physical activity and expression the basis of learning. Pestalozzi, while he organized domestic industrial education for the poor, placed relatively little emphasis on similar constructive work in his Burgdorf and Yverdon schools. He made his sense-perception instruction largely a matter of passive observation, instead of associating it with constructive expression. The general psychological value of education by doing was expressed by Froebel in the following way: "Experience and history, too, teach that men truly and effectively promote human welfare much more by what they put forth from themselves than by what they may have acquired. Every one knows that those who truly teach, gain steadily in knowledge and insight.... Again, to learn a thing in life through doing is much more developing, cultivating, and strengthening than to

learn it merely through verbal communication of ideas. Similarly, plastic material representation in life and through doing, united with thought and speech, is by far more developing and cultivating than the merely verbal representation of ideas".[13]

Pestalozzi had emphasized training in domestic labour for poor children, but Froebel showed that every child develops through a playful imitation of adult activities. In the organization of child play he constructed a systematic series of playthings, which were developed gradually by experimentation. Some were known as "gifts" and some as "occupations", but they were all materials for stimulating the child's physical, or motor expression. They included soft balls, a sphere, a cube, a cylinder, small cubes or blocks for building games, sticks to be arranged to form geometrical or artistic forms, paper for folding, and other materials for drawing, modelling, weaving, and so on. His occupations were an improvement on Pestalozzian object teaching. These constructive materials were used for making geometrical forms and "forms of beauty". This was a great deal like Pestalozzi's inventional drawing method, using blocks and splints instead of a pencil, but was developed very fully by Froebel.

Like Herbart, Froebel started with Pestalozzi's Elementary Books, which appeared in 1803, and other discussions of the latter's idea of an ABC of sense-perception. Herbart developed this idea of object teaching in arithmetic in the direction of training in elementary trigonometry. One may compare Forobel's early number lessons with suggestions made by Pestalozzi in his introduction to his "ABC of Number Relations". Froebel's contribution to elementary education was his idea

that the relatively passive observation and description of objects which Pestalozzi described was not as educative as active constructive work with similar materials. Both he and Herbart founded their educational programme and new system of educational thought upon a psychological basis, Herbart upon associationism and Froebel upon activism and the play element in education. Their influence upon educational theory and practice in Germany was fundamental and far-reaching.

Chapter Eleven - Pestalozzi and Individual Practical Educators in Prussia

Prominent among the earlier educational entrepreneurs who established schools on Pestalozzian lines in Prussia and who were thus instrumental in the dissemination of Pestalozzi's ideas in Prussia was Johann Ernst Plamann. He had visited Burgdorf for six months in 1803, attracted there by Pestalozzi's writings and the fame of his school. Here he realized the truth contained in Pestalozzi's educational doctrine and practice. Upon his return to Berlin after leaving Burgdorf, Plamann began to correspond with Pestalozzi and published the "Basic Principles of the Art of Education according to Pestalozzi",[1] as well as several other works showing the application of Pestalozzi's principles to language, geography, and natural history. Then, in 1805, he established, with the authorization of the government in Berlin, an educational institute, the "Plamann Institute", based on the Pestalozzian teaching system, partly as an experiment, but chiefly with the idea of training teachers in the Pestalozzian method. This institute soon achieved wide fame and became a centre for the dissemination of the method. The number of pupils grew rapidly and Plamann had to add a boarding school to his main establishment.

In spite of the king's favour and despite the fact that he had received the royal assent as early as 1803, Plamann had to struggle with innumerable difficulties before he could claim success. The Consistory and the other reactionary school authorities placed obstacles of all kinds in his path. However, the eventual hard-won success of his enterprise greatly influenced the subsequent action of the Prussian government; an immediate outcome of this influence was that they sent

two young men to Plamann's institute with all expenses paid so that they might familiarise themselves with the Pestalozzian Method. Plamann also rendered great service to the cause of the new education by training many famous teachers in the Pestalozzian spirit; Harnisch, Jahn, Kawerau and other well-known educators received their early educational training at his institute.

In Frankfurt on the Main, in the same year as Plamann established his institute, Gustav Anton Gruner (1778-1844), opened his own Pestalozzian school. It was in this school that Froebel first began his educational career, where he was so inspired by what he discovered that he went to Yverdon to study at the source of the new ideas. Later, in 1812, Froebel made the acquaintance of Plamann through "Father" Jahn, the founder of the physical education movement in Germany, and was employed in Plamann's institute for a short time. Gruner himself, a Philanthropist, had gone to Burgdorf as a critic of Pestalozzi's claims and had returned an ardent convert. Amongst other things he had observed in Pestalozzi's school he had been most impressed by a "moral review" which he had heard Pestalozzi give and gave an enthusiastic report of it.

Both Plamann and Gruner thus established themselves as successful practitioners and advocates of the Pestalozzian method of instruction in Prussia at an early date in the nineteenth century. Pestalozzian schools were also founded in Wiesbaden by von de l'Aspée and in Bremen by Betty Gleim.

Chapter Twelve - Pestalozzi and the Prussian Government

The revelation of Pestalozzi's practical system of mass education was given at the peculiarly opportune moment in history when Prussia was actively engaged in laying the foundations of a state system of education and was giving serious consideration to improved methods of teaching. The government thus took a most serious interest in Pestalozzi's new method. It was the concreteness and general applicability of his educational doctrine as expressed in his own writings and in the work of his followers, who had seen the method in practice, that attracted the attention of the Prussian government officials at this time. The king of Prussia, Frederick William III (1770-1840), who came to the throne in 1797, did not share the reactionary and unenlightened views of his father and of the latter's Minister, von Wöllner, on the conduct of elementary education in Prussia. It had been one of the king's first actions to urge the promotion of the prosperity of his people and the improvement of the elementary schools. "It is my earnest desire", he declared, "that the greatest attention should be paid to the education of the people".[1] "It cannot have escaped your attention", he wrote to von Massow, the new Minister who had taken over from von Wöllner, "that I regard education in all my states as an object which deserves all my attention and solicitude".[2] Concerning instruction, he said: "Instruction and education form the individual and the citizen, and both are, as a rule, entrusted to the schools, so that their influence on the welfare of the state is of the highest importance".[3] In a Cabinet Order of the 3rd July, 1798, the

king commanded that particular attention should be given to the elementary school system in town and country and that seminaries, that,is, training institutes for the education of elementary school teachers, should be established. "It is finally time", he affirms in this order, "to provide for the appropriate education and instruction of the children of the townspeople and peasants. Up to the present time there has been lavished almost exclusively on the so-called classical schools the attention which was owed at least to the same extent to the elementary schools in town and country. For the overwhelming majority, for the needy subjects and their poor children, except for individual attempts, almost nothing has been done".[4]

These ideas expressed by the king were in fact Pestalozzian ideas; the king had grasped the concept of education and the idea of educative instruction in the Pestalozzian spirit. Indeed the order goes on to say that "provision must be made for good teachers who are trained in a seminary". Pestalozzi's whole system depended for success on a regular supply of trained teachers.

At the king's instigation an inquiry was begun into the condition of the elementary schools in Prussia. The officials undertaking this task were ordered to make inquiries into suggestions for elementary school reforms, to determine the funds available, as well as possible new sources of funds for the improvement of the elementary schools. The results of these official surveys and inquiries depicted as a whole the most lamentable situation. Funds for elementary education were found to be lacking and it became obvious that the state would have to provide these if any progress on a wide scale was to be made. The schools themselves were found to be mostly deplorable, the teachers employed in them just as bad, and the

salaries paid to the latter lamentably meagre. The children who did attend school, and a great number simply did not comply with the compulsory attendance order, which, like many of Frederick the Great's educational measures, had remained a mere paper reform, were for the most part still subject to the narrowest curriculum. They learned the catechism and perhaps some textual passages mechanically by heart and sometimes, it is true, gained a modest skill in reading, but the art of writing and that of arithmetic were only taught if a special school fee was paid. In addition there was usually a little choral singing.

The new Minister, von Massow, showed the greatest personal interest in the improvement of the elementary school system he even undertook journeys at his own expense in order to gain first-hand knowledge of the condition of the schools. This was followed up with a detailed report to the king about his findings. "The object of reform", he says, "is national education, and the terrain must be all the Prussian states".[5] In a Cabinet Order to the Prussian Consistory in 1799, the demand is made "to combat the all too widespread prejudice, that the schools are and have to be a matter concerning the individual religious factions; for it is not to be denied that the schools are to be regarded as institutions of the state and not of individual denominations; for this reason it is also to be desired, that the religious instruction be limited to the general truths of religion and to the moral teaching common to all church factions".[6] It can be seen from the serious interest devoted to education at government level that Prussia was already treading the path leading to the improvement of the elementary school system and the creation of a national education. In the year 1801 von Massow laid before the king the

draft of a "Plan for the General Improvement of Schools",[7] in which he proposed a "Plan for National Schools and Education"[8] to include all aspects of education; in this project the demand is made for the "closest association of school and industry"[9] in respect of the country school; religious education as such is assigned to the clergy, and the mother tongue is included among the subjects to be taught in the town schools. One recognizes everywhere at this time the government's endeavour to improve the elementary schools, to train and pay the teachers better, and to place the administration of the elementary school system in expert hands. However, the constantly worsening political conditions did not allow the authorities the time, even less the means of creating something effective and lasting in this sphere of public life. All the agitation and lively activity in the Ministry therefore had no direct results, because, before all the educational enquiries and investigations could be concluded, catastrophe overtook the state.

Nevertheless, even at this time, the improved method of instruction employed in the schools of Rochow was alluded to at government level, and, as a consequence of the general interest caused by the discussions of Pestalozzi's work in German periodicals, consideration began to be given to Pestalozzi and his institute at Burgdorf. The king personally had become interested in Pestalozzi's work and desired an expert report about it. On the 23rd April, 1803, he issued an Order in Council to the Consistory and School Authorities in which he remarked: "The Pestalozzian method of instruction, which is spoken of in such very high terms at the present time, has also aroused my attention.... I have therefore resolved to send a man of recognized educational expertise and experience, whom I

can at the same time credit with enthusiasm for everything, that can improve instruction, and also impartiality, so that he will not allow himself to be beguiled by the fascination of novelty, to visit the Pestalozzian Institute in Switzerland and to make a thorough study of the method practised there".[10] Thus the chief school inspector Gedike received the commission to visit Pestalozzi in Burgdorf on his planned journey to Italy and to give his report to the king; but Gedike died on the 2nd May, 1803, before he could undertake the journey.

A plan similar to the king's was realised elsewhere. The Minister von Voss despatched the seminary inspector Jeziorowski to Pestalozzi in Burgdorf to see the work being done there at the end of July, 1803. Jeziorowski stayed at the institute until October of that year. Upon his return he rendered a very favourable report to von Voss, who appointed him director of a seminary in Warsaw and later, when the latter fell to Russia, Jeziorowski became a school inspector in Liegnitz. In a letter of thanks to Pestalozzi for his hospitality, von Voss wrote that "as far as staffing and local conditions in the South Prussian educational systems and also other circumstances allow, I shall greatly urge the main points of your method in the South Prussian schools as they now exist and will gradually be established: lucidity of instruction, practical exercise of speech, exercise of judgement by eye, and arithmetic; it is moreover my intention to make especially capable subjects acquainted with the method in future Prussian seminaries".[11] When von Voss informed the king of Jeziorowski's visit, Frederick William showed that he still had some reservations about the ned education and that he was not yet

prepared to promote the new educational thinking on a national scale in his realm. In a Cabinet Order of the 31st December, 1803, he said that although "an essential improvement of school instruction is to be expected, it is, however, too early yet for the government itself to take steps for the introduction of the method in the elementary Schools".[12] He therefore only gave authorization to von Voss to prepare particularly able seminary students in the method at this time. The fear was expressed that the children of the common masses would be badly educated for their future station in life by an over-emphasis on the new instruction. It was only after further representations by von Voss in a renewed report of the 13th June, 1804, in which he reiterated that he only wanted to achieve the same aims as the king, and that the new method should only be used to teach children to grasp the essentials of the material to be taught and to make instruction more urgent and penetrating by condensing it, that the king, on the 19th January, 1805, authorized the adoption of the method in the elementary schools as well as in the seminaries, although on a non-compulsory basis.

After Gedike's death, the Consistory had been ordered by the king to send another man from the inspectorate to Pestalozzi as soon as possible, but to this the Consistory replied that a man, who possessed all the necessary experience and discernment, had already been with Pestalozzi the previous year and had set forth the scanty value of his method in a specific publication. The man referred to was Soyaux; his work was entitled: "Pestalozzi, his Teaching Method and his Institute".[13] This review, however, does not by any means contain a rejection of the Pestalozzian method, as was implied by the Consistory, but even defends

Pestalozzi against unjust condemnations and attacks. Amongst other things, Soyaux says: "I do not desire to absolve Pestalozzi of faults and errors, perhaps his method finds little approbation, but the spirit of his principles, the aim of his method will surely continue to have a salutary effect. Apart from Pestalozzi, no educator of any note has recommended the method of teaching by sense-perception so urgently, has grasped it in its entirety like this, and has applied it so consistently to the most specific subjects. The idea is stimulated anew, others may perhaps carry it out more successfully. The instruction in language, in arithmetic, in the ABC of sense-perception, in writing, as it is given now in Burgdorf, might only with difficulty be promoted to general validity; we can, however, only regard this method as the outer shell, as the mortal frame of the spirit, which should inspire and animate all methods: the sure, considered step by step progression; the essential urgency to practise the art of true and keen observation more seriously, and to arrange the whole elementary material in naturally consecutive sequence according to firm principles".[14]

Fortunately the king did not let himself be guided by the unfounded judgement of the Consistory. He had by this time been informed of Jeziorowski's visit to Pestalozzi by von Voss and in 1804 he sent the clergyman Karl Witte to Münchenbuchsee, where the Pestalozzian Institute had been transferred for a short time. In the report which Witte made about this visit, the Pestalozzian method is enthusiastically recommended in general; however, Witte comprehended Pestalozzi's strivings rather one-sidedly in several points, and as a result there arose a lively public discussion about the matter, which had the happy result of placing Pestalozzi's aims and endeavours in their true light. The interest in

Pestalozzi now became more and more active; it was recognized more and more in Prussia, that for the new era which was approaching, new foundations had to be laid for a new, national education, which had to link up with the educational processes established by Pestalozzi if it was to achieve all that was demanded of it.

The main tasks which the Prussian government undertook under Pestalozzi's influence were the creation of teacher training institutes for aspiring elementary school teachers, and the reorganization of the elementary schools on Pestalozzian principles, a sound foundation on which Prussia could continue to build later when education meant salvation to her.

PART TWO

PRUSSIAN-PESTALOZZIANISM AFTER 1806

Chapter Thirteen - A New Beginning - the Impetus given to the Adoption of Pestalozzi's Educational Ideas in Prussia by National Disaster

The eighteenth century had been a time of educational experiment in Prussia. At the beginning of the nineteenth century the sound ideas of Philanthropism and the fundamental educational ideas of Rousseau were preserved and found their further development in Pestalozzi's theory of a common education. Not even in his native land did Pestalozzi's views find such glad acceptance and such strong promotion as in the Prussian state. The relation between him and the Prussian leaders, especially the leaders of the educational system at that time was to prove honourable and gratifying for all concerned. The events of 1806 precipitated an upsurge of interest in Pestalozzi's educational system in Prussia.

On the 22nd September, 1806, Frederick William III visited the school institutions founded by Francke in Halle. He was on his way to meet Napoleon in battle. The king walked up and down the long inner courtyard of the orphanage, and the teachers and officials who had been surprised by his appearance heard his comforting assurances of further assistance, wherever it was necessary, as soon as peace had been restored. No-one suspected that the visit would be a farewell for seven years. Three weeks later, on the 14th October, 1806, Napoleon's armies defeated Prussia at the battles of Jena and Auerstadt. Prussia's renown in war, which had already suffered in the campaigns against the French Republic, was obliterated. There followed the crushing treaty of Tilsit in July, 1807, whereby Prussian possessions were reduced to about half their

previous size, and an enormous indemnity which exhausted Prussia's resources had to be paid. The size of Prussia's standing army was reduced to only 42,000 men. Napoleon stripped his defeated enemy of virtually all power over laws, revenue, excise, foreign relations and commerce. The only thing he left untouched, because he considered it unimportant, was education. Prussia was not long in seizing the one loophole left open to it during the years when the domination of Bonaparte in Germany was nearly absolute.

The country seemed to be destroyed, but the catastrophe called into being a new national spirit in Prussia, the nation did not lose faith in itself. In all spheres of state life the work of reconstruction began with renewed strength and courage. In order to retrieve their losses and regenerate the country, Prussian statesmen became convinced that a complete social revolution which would improve the conditions of the common people was necessary. In this time of the greatest national misfortune the government and the people turned to elementary education. A rebirth from within was to be attained: where could it begin more fruitfully than in education for the whole nation? If one held out hopes of liberation and a regaining of former greatness in the future, how could these hopes be better realized than if the youth of the country was educated in patriotism, in loyalty to king, in fear of God, in self-sacrifice, in ideal ways of thinking? All leaders of the state at this time were filled with these opinions and aims. In his "Nassau Memorandum" the First Minister of State, von Stein, declared that "the improvement of the educational institutions, especially the rural schools, and the establishment of these, must advance so that a greater quantity of basic knowledge is spread through the whole nation".[1] The Ministers Altenstein and

Hardenberg were wholly in agreement "that the state can and must if need be use compulsion, so that no person remains uneducated", that "freedom in teaching should not be limited by prescribed regulations", and that "the aim not only must be the cramming of a person with knowledge, but also the cultivation of his brain power and its direction to the higher spiritual and intellectual sphere".[2]

Unaccustomed defeat on the field of battle caused an outflow of agonized re-appraisal and the drastic conditions of peace aroused the fervent patriotism of the Germans. Until this moment there had been a decided lack of nationalist feeling of the greatest Germans of the time. Among these was the philosopher Johann Gottlieb Fichte (1762-1814), one of the number of scholars and men of letters who had been drawn to Berlin by the Hohenzollern policy of toleration. In 1799 he had sought refuge in Prussia when the authorities in Weimar accused him of atheism. In 1805 Fichte had declared himself a citizen of the world rather than of any particular country, but now he became a fervent nationalist. He now urged popular enlightenment as the one means left to regain Prussia's former glory. The salvation of the state, he declared, lay in education, in making good in spirit and intellectual power what had been lost in material strength. He was keenly interested in the teachings of Pestalozzi and had visited him on the "Neuhof" in 1793, when he had been teaching in Zürich, and where Pestalozzi had informed him of his plans for a common elementary education. Fichte had promised to help to exploit Pestalozzi's theories in Germany and now he kept his promise. The movement to introduce the Pestalozzian methods, which had begun before the Jena disaster, was now revived and greatly stimulated by Fichte's

"Addresses to the German Nation",[3] In the ninth of these fourteen public lectures that he delivered in Berlin during the winter of 1807-8, covering the period from the 13th December, 1807, to the 20th March, 1808, he preached above all a renewal of educational principles, emphasized the possibilities of national regeneration to be found in education, and pointed to Pestalozzi, placing him side by side with Luther as a national saviour. He pointed to a "system of national education" as the way out of Prussia's difficulties. He promised deliverance to the Germans through such a system, which he considered would be the beginning of an entire reformation of the human race, enabling the spirit to obtain a complete mastery over the flesh. "Would that the state", he urged, "could look its present position steadily in the face, and acknowledge to itself what that position really is: would that it could clearly perceive that there remains for it no sphere in which it can act and resolve as an independent state except that of education... If we are seeking for an occupation let us seize this"...[4] He declared wholeheartedly that the Prussian reform of education should begin with a consideration of new methods of instruction: "From foreign sources Germany has been infected with self-seeking. She must be built up on a loftier moral plane, for which we require a new system of education"...[5] The duty of carrying out this new plan of education should be given, said Fichte, "to the course of instruction which has been invented by Heinrich Pestalozzi, and which is now successfully carried out under his direction".[6] He proclaimed that "Pestalozzi's essential aim has been to elevate the lower classes and efface all differences between them and the educated classes; but by his invention, taken in its entirety, it is not only

popular education that is realized but national education; and Pestalozzi's doctrine probably has enough power to help nations and the whole human race to rise out of their present miserable state of distress".[7] Although he criticised sharply certain details in Pestalozzi's theory and practice, Fichte nevertheless urged the Pestalozzian school as the true type of elementary school and advocated the self-activity on which the Pestalozzian method of instruction was founded as the starting point of a new national education. He stressed the need of instilling Pestalozzi's spirit in educating a vigorous and loyal people and recommended the Pestalozzian education as the one means of national regeneration for the Germans.

Such words from such an influential voice could not pass unheeded, but the most important fact was that "these ideas of the great prophet of modern education of the people stood in inner accord with the thoughts of the statesmen and philosophers of this epoch".[8] In this time of dire necessity one now seemed to discover in Pestalozzi's teachings, in his principle of methodically unfolding the spontaneous creative power of human nature in every child, the remedy that offered salvation to the nation through education. Buchholz, the author of the "Picture of the Social Conditions in the Kingdom of Prussia up to the 14th October of the Year 1806",[9] had already convincingly pointed out that the mere existence of schools for the people did not necessarily mean that a true elementary education was available. If the spirit of the citizen was to be developed, nothing was more important than the quality and condition of the schools. Without the skill of the teachers, even the best reorganization would bear no fruits. He had depicted the insufficiency of the Prussian schools and he, too, had suggested that the only means of

salvation was the introduction of the Pestalozzian teaching method, as well as the abolition of the rights of patronage. "The Pestalozzian teaching method is", he stated, "of all the inventions of the eighteenth century the greatest and most comprehensive. If the Prussian state is to be helped, this can only happen by the abolition of serfdom and the establishment of teacher training institutes for village schoolteachers based on the Pestalozzian method..."[10]

Chapter Fourteen - Reorganization and Preparation for Pestalozzian Education in Prussia

An entire reorganization of the state was needed in Prussia, a national reform on all levels. Partly as a result of Fichte's exhortations and in reply to other appeals, the Prussian government based this reorganization on a new education of the people. Gradually the machinery of state education began to be established and the ground prepared on which Pestalozzi's spirit could enter. The old Prussian administrative system had partially collapsed after defeat in 1806, but after August, 1807, Baron von Stein set about the programme of reconstruction with renewed zeal. The collapse had revealed the fault of the state to him: it was built from the top downwards. He realized the potential of new forces arising from below, from the common people and it was to these that he turned his attention. If the state could develop and enlist their talents, it would become invincible. He wrote: "We started from the fundamental idea of raising a moral, religious, patriotic spirit in the nation".[1] His programme was "to bind everyone to the state by conviction, sympathy, and cooperation in the affairs of the nation, to give the forces of the nation free play and direct them towards the common good".[2] Serfdom was abolished in principle by the Emancipating Edict of the 9th October, 1807, and attempts were made to provide land for the peasants. In paragraph 12 of the Edict the king declared: "On St. Martin's Day, 1810, all serfdom in all our states will cease. After St. Martin's Day, 1810, there will be only free people!"[3] The Edict prepared the way for social reconstruction: civil rights were

promoted and internal improvements begun. It was designed to remove every obstacle that had up to that time prevented the individual from attaining such a degree of prosperity as he was capable of reaching. Indirectly there lay in this an important elevation of the standing of the teacher, for it was not a matter of indifference for what kind of future the children in the villages were to be educated, whether as serfs or free human beings who could decide their own destiny. It also helped to bring about a more friendly attitude of the parents towards the school and the schoolteacher. The Municipal Act which followed in 1808 laid the foundations of a modern system of government. By this statute the towns received the right of self-administration in the field of education, the government devoting more attention to the provision and supervision of the schools. Any participation in school committees was still denied the teacher, but the new act contained the seeds of a powerful development for the elementary schools and indirectly thereby for the standing of the elementary schoolteacher.

This social and political reform movement paved the way for the scheme of a broader elementary education for the common people. The king was in complete agreement with this plan. He declared: "We have lost in territory, in power, and in splendour; but what we have lost abroad we must endeavour to make up for at home, and hence my chief desire is that the very greatest attention be paid to the instruction of the people".[4] Von Stein maintained that education "must develop love of country, of fellow-men, and God, and must avoid all merely decorative, borrowed, artificial culture".[5] Such an education, he asserted in his "Political Testament", should help to reanimate the German spirit by "a

method based on man's inner nature".[6]

This concern for education was testified to by drastic educational reforms on all levels in Prussia. The Central Administrative School Board, which had by this time become an ineffective and reactionary body, was abolished and a new Bureau of Education was set up in 1808 as a division of the Ministry of the Interior. It has been seen that the idea of state education was not new in Germany, but it was Pestalozzi who convinced the Prussian authorities both of its necessity and practicability at this particular time. The ideas he had worked out in educational practice at Burgdorf and Yverdon gave the stamp of reality to his schemes. Interest in Pestalozzi was further stimulated when at the beginning of 1809 the distinguished scholar Wilhelm von Humboldt (1767-1835) was appointed Director of Ecclesiastical Affairs and Public Instruction. Humboldt had formerly been averse to the Pestalozzian method, but he had nevertheless entrusted his son to the Plamann Institute in Berlin and became a true Pestalozzian, although his interests lay chiefly in the higher institutes of learning. With others he took part in the founding of the University of Berlin (1809-10) and reformed the classical Grammar School on a more thoroughly humanistic plan.

Thus both von Stein and von Humboldt had their eyes fixed on the Yverdon institute and guided Prussia's educational policy accordingly. They were full of understanding for the ideas of G. H. L. Nicolovius (1767-1839) and J. J. Süvern (1775-1829), their chief subordinates, who were keen disciples of Pestalozzi. Süvern, who possessed the most lively, open mind for all ideal aspirations and strivings, belonged to the most enthusiastic supporters of the new method. Nicolovius had met

Pestalozzi at the "Neuhof" on a journey to Italy in 1791. He had been deeply impressed with the man and his work and wrote about him even then: "I have made the acquaintance of a man, who is a man in every sense, purified by the hell-fire of self-knowledge and filled with an apostolic spirit. It is Heinrich Pestalozzi, the author of 'Leonard and Gertrude'".[7] From that time Nicolovius remained devoted to his friend and corresponded with him during all the following years. A letter to Pestalozzi written in 1808 by Nicolovius indicates that he, too, was looking to education for the means of national regeneration: "At last, my venerated, unforgotten friend, I have the pleasure of seeing some rays of thy light penetrate into the schools of my fatherland... Oh, help us to foster the work which thou hast founded!"[8] What Pestalozzi had dreamed of at the "Neuhof", what he had doliberated with Nicolovius in many letters, was now to take place as an act of urgent necessity.

Chapter Fifteen - Pestalozzi and the Prussian Education Leaders

The first initiative for the introduction of the Pestalozzian elementary system of education came from Nicolovius as early as August, 1808, when Minister von Schrötter was still in control of the Prussian educational system. It was just after the time when von Stein had suggested an interim arrangement for the simplification of the administrative authorities in Prussia, in June, 1808. Accordingly Ecclesiastical, University, School and Charity Affairs were dealt with in a special section of the Provincial Department under von Schrötter, to which the Under-Secretary to the Treasury Sack, Consistory Councillor Nicolovius and Professor Süvern belonged. Later Albrecht, a Councillor of the Supreme Court, took Sack's place. On the 25th July, 1808, this new arrangement had been approved by the king, and it was only a few weeks later, on the 23rd August, that Nicolovius suggested within the department that the existing methods of the rural schools, which were directed merely to the learning of reading and writing, should be supplemented by Pestalozzi's method. At the same time he put forward two other decisive measures: to send young men to train with Pestalozzi, and to establish a teacher training institute under the famous educationist Zeller. Süvern agreed wholeheartedly, and even extended these aspirations to include the establishment of a second teacher training institute under the school inspector and institute director, Jeziorowski; already at this time he expressed his intention of creating a plan to include the entire educational system on the basis of earlier and more recent surveys and enquiries.

Von Schrötter agreed to the scheme and wrote to Pestalozzi and to Zeller. The letter to the former is dated the 11th September, 1808, and was drafted by Süvern: "Entirely convinced of the great value of the method of instruction invented and so successfully practised by you, I am willing, by the introduction of the same into the elementary schools, to promote a thorough reform of the school system of the Royal Provinces, and await from this the most beneficial influence on the education of the people. Amongst the measures which I intend taking in order to achieve this aim, one of the chief ones is to send two capable young men to you without delay, so that they may draw the inspiration of your whole method of education and instruction directly at the purest source, acquaint themselves not only with isolated parts of it, but comprehend all its parts in their reciprocal relation and their most profound association, learn to practise it under the guidance of its originator and his assistants, in their social intercourse with you not only cultivate their intellect alone, but also their heart for the complete vocation of education and be filled with the same animated feeling of the sacredness of the profession and the same ardent inclination for it, inspired by which you devote your whole life to it".[1] There then follow enquiries about what kind of young men, according to age, disposition and education would be the most welcome to Pestalozzi, whether on their way to him they should acquaint themselves with other educational establishments, how great the costs would be, and how long a stay would be necessary for the purpose in mind.

On the 21st October, 1808, Pestalozzi answered Schrötter's letter from Yverdon as follows: "Your Excellency's letter of the 11th September filled me with feelings of the deepest gratitude. Moved by the fact that the men, in whose hand the well-being of the people lies, are showing a sincere and active interest in what I have undertaken for the education of the people, I cannot thank Providence enough, that it blesses my endeavours with such great success..."[2] He then went on to give details of the characteristics he would like to see in the student-teachers sent to him: purity and simplicity in manners and morals, with no signs of affectation. He envisaged a minimum period of two years' training, at a maximum cost of sixty French Louis d'or per student per year. He advised that they come straight to him and see other educational establishments on their return journey. Above all he expressed his gratitude that the Prussian government was giving him an opportunity to realize his life-long aspirations. At the same time Pestalozzi wrote a letter to Nicolovius in which he stressed once more "that the young men, who are sent here, should be of pure, noble heart and of simple and unrefined opinion; for my part I intend to do everything for the goal which you seek. The concept is great: the most unfortunate now seek help from the unfortunate one. The notion is elevating: the strength, which misfortune engenders, is now recognized as a higher power, and the wretchedness, which has grown beyond happy unconcern, has finally torn the veil of their powerlessness from the eyes of those reeling under misfortune. Friend! I take comfort in the thought that the time of reaping has drawn nigh for everyone who is willing to work for truth and love".[3]

By the time these letters reached the Central Education Office in Königsberg, the final reorganization of the administrative authorities had been completed and at the same time von Stein had relinquished his office. Count Alexander Dohna took charge of the Ministry of the Interior, under him Wilhelm von Humboldt received the appointment of Director of Ecclesiastical Affairs and Public Instruction, although he did not take up office until February, 1809. Nicolovius and Süvern, and for a short time Albrecht, too, remained members of the department. Even in its reorganization this administrative body held firm to the plans for the introduction of the Pestalozzian system, indeed these plans were even extended in their execution later.

Shortly before withdrawing from office von Stein had drafted a Cabinet Order (on the 6th January, 1809) to Schrötter, in which he declared that the education and instruction of the new generation was now more important than ever. He therefore desired that no more time be lost in implementing the new ideas of reform. The principles to be borne in mind in this reform were that education and school instruction were affairs of the state and that the towns and the country districts had to be provided with as many schools as were necessary. The aim of the schools was not to impart only knowledge, but to form the judgement, the common sense, the moral and religious spirit in children. Of the greatest importance for the new type of education to be given in these schools were the Pestalozzian principles and experiences. Von Stein stressed that schoolmasters had to be suitably educated and trained for their profession. With regard to this he pointed out that the teacher training establishments existing for this purpose in Königsberg and in Dexen (he was referring here to the

teacher training institute founded in Klein-Dexen in East Prussia in 1772) were totally insufficient. The former had very limited funds at its disposal, and the latter was only a private institution, situated in the wrong place and struggling with difficulties. Each establishment was, moreover, only capable of training four students at a time. It would be best, apart from these, to establish new teacher training institutes, perhaps only temporary ones at first so that with every cleric and schoolmaster who was outstanding in teaching, two or three student-teachers could be trained. Nine such non-permanent teacher training schemes for East Prussia and Lithuania had already been suggested in 1805, and this suggestion had only to be followed through. So that the benefit might be seen earlier, schoolmasters already in practice could, wherever necessary, receive in-service training. The directors of teacher training institutes Jeziorowski and Burgund,[4] who had been trained by Gedike, Niemeyer, and Steinbart, and had undertaken educational visits to Pestalozzi, could with advantage be transferred from Posnan and Görlitz to assist in the establishment of teacher training institutes in Prussia itself. Von Stein further recommended that each province should have its own educational authority to supervise the educational system within its boundaries. As regarded the teaching of religion peculiar to each confession, it should be reserved, if possible, for the ecclesiastic of the place. Special attention had also to be paid to the exterior as well as the interior of the schools, to the cleanliness and sanitary conditions of the schoolrooms, and to the regular attendance of the pupils. Some regulations for the inspection of schools followed.

In answer to Dohna's enquiry about these suggestions put forward

by von Stein, Nicolovius explained on the 7th January, 1809, that the specific execution of such a Cabinet Order was no longer necessary, since the reforms were already under way, and that there was no doubt that the reforms already instituted would be realized. He pointed out that a revision of the "Principia Regulativa"[5] issued by Frederick William I and the preparation of a full-scale review of the present situation of the school system of the Prussian provinces was already arranged. According to this any deficiencies ascertained would be remedied, even if only gradually. The Educational Councillor Zeller, he said, had been appointed to organize the elementary school system of the Province of Prussia and gradually of the whole country. To Pestalozzi were to be sent two young men capable of a higher education and training for the pursuit of teaching. Nicolovius declared his belief that through the Zeller-Pestalozzian method, which in its essence was genuinely religious, all differences of denomination, as far as they were obstructive, would be unobtrusively abolished, and that through the teacher training institutes to be established by Zeller, it was hoped that the crying need for good training establishments would be completely alleviated. For the material betterment of the teachers he suggested the levying of a general school tax. Preachers and superintendents were also to be drawn into the teacher training institutes, and once the new method had been introduced, the theologians could also be examined in it "pro ministerio".

Chapter Sixteen - The First Steps to Introduce the Pestalozzian Method into Prussia

The first steps were now taken to put the planned new arrangements into operation. On the 31st January, 1809, the fundamental proposals were placed before the king. It was pointed out in the report that amongst the means which were in accordance with the king's desire to found the inner rebirth of the nation on a radical improvement of the system of education, one of the principal ones was the dissemination of a lively and spiritual method of instruction. The method recommended was that devised and practised by Pestalozzi. Its essence was that it did not follow a course of mechanical learning and practice of limited knowledge and skills, but took account of the innermost basic power of human nature in all the various branches of its expression and formed and strengthened it in accordance with the natural stages of development. It cultivated in its pupils, to whatever nation or class they belonged, what was essential to them as human beings and, at the same time, what was necessary and useful to them as citizens. Moreover, it fulfilled all the conditions of education demanded by the king in his Cabinet Order of the 16th July, 1808: the development of a requisite knowledge and ability, vigorous will, public spirit and a sense of religion. The report continued by stressing that this method could not be introduced by rules and regulations, its successful practice depended upon the inner spiritual inclination of the educator and teacher, whose whole being had to be filled with enthusiasm for it. It would only be possible to transplant it to Prussia and let it strike deep roots by example and instruction on its use. The Department of Public Instruction therefore advised, with the

King's permission, that in order to gain this method in as pure and complete a form as possible, capable young men should be despatched to Yverdon in the Swiss Canton of Waadt, where Pestalozzi himself directed his famous institute. The Department further advised that two suitable student-teachers had already been found to send to Yverdon: Johann Wilhelm Preuss, nineteen years of age, the son of a preacher at Tilsit, and Peter Friedrich Theodor Kawerau, nineteen and a half years of age, the son of a broker at Elbing. In choosing them, particular consideration had been taken of the fact that the Pestalozzian teaching method, directed and guided by the efforts and endeavours of several leading educators, was at this particular time on the point of spreading its influence and development to the higher subjects of instruction too. It had already shown extraordinary success in mathematics, amongst other subjects, and these two young men, as a result of their already acquired knowledge in language and the sciences, were eminently suitable to become involved and participate in the further development of the method, so that they might consequently be of great value and practical use in the realm of higher as well as elementary education in Prussia in the future.

The plan outlining these proposals had been drawn up by Süvern and bore his own as well as the signatures of Nicolovius and Albrecht. It was approved by a Cabinet Order of the 13th February. In this draft, besides Preuss and Kawerau, who were probably former pupils of Süvern from school or university, the young Prussian Henning, who was employed as a tutor in Basle and whom Pestalozzi had recommended in a private letter to Nicolovius, was also named as one of the student-teachers to be sent to Yverdon. On the 16th February Count Dohna accordingly notified Pestalozzi

of the decision to despatch the young men and at the end of March Kawerau and Preuss were the first to set off for Yverdon.

In the meantime Humboldt had taken up his office and had come to Königsberg. Despite his early doubts, he was completely won over to the Pestalozzian method on closer acquaintance with Nivolovius, Süvern, and Zeller, who had by this time also arrived in Königsberg. By a proposal of the Department dated the 7th March, 1809,[1] the number of student-teachers from East Prussia and Lithunia to be sent to Pestalozzi was raised to twelve; at Humboldt's request two of these were sent to Flemann in Berlin, because of the praise which Pestalozzi had accorded to his Berlin disciple and adherent in his periodical "The Education of Man". A fourth student-teacher named Ksiozek was now sent to Yverdon to join the others, and on the 15th August, 1809, Humboldt announced in a letter[2] to Pestalozzi the imminent arrival of Dreist[3] with two boys from Schmiedeberg in Silesia.

On the 6th October, 1809, Pestalozzi wrote that he was highly satisfied with the choice of student-teachers. He expressed his happiness that the Prussian government was sending these young men to become acquainted with the principles of his method and to become imbued with its spirit over a period of three years, especially at this time when the method was being worked out in all its many details in daily practice at Yverdon. He expressed his regret that so many so-called teachers were still engaged in the instruction of dead letters, of mechanical arts. They were not even educators of one single child, let alone were they capable of becoming educators of a nation, imbued with the higher spirit and ideals required for this. He therefore applauded the action of the Prussian authorities in availing themselves of the opportunity of introducing his unifying

method into the land on a widespread scale and hoped that they would soon see results in a new national spirit of regeneration brought about by the new education when the student-teachers returned to Prussia filled with his zeal for the education of all men, including the common people.

Dreist soon arrived in Yverdon to join the four student-teachers already there and he was followed by many others, including Marsch, Patzig, Krätz, Rendschmidt, Braun and Steger. Before their departure, Süvern addressed the student-teachers on the subject of their mission. They were not merely to learn the "school machinery" but to capture the spirit of the master. He told them: "The object of sending you to Pestalozzi is not merely that you may study the external or formal part of this system, or to acquire skill in teaching, but that you may warm yourselves at the sacred fire which is glowing in the bosom of that man, who is full of power and love; that you may walk with a similar spirit in the path of truth and in the observation of the laws of nature; that you may become simple as children, in order to obtain the key with which to open the sacred temple of childhood; that you may never forget that a knowledge of the elementary part of each science is the most difficult to obtain, since it requires a thorough perception of the reality of things; that the characteristic feature of the Pestalozzian method is the fact of its being equally adapted for scientific research and for popular application, since it does not spoil the desire for knowledge by light and unwholesome food, but strengthens it by vigorous nourishment".[4]

The arrival of these first Prussian student-teachers heralded the start of a steady pilgrimage between Prussia and Yverdon which endured as long as the famous institute remained in existence.

Chapter Seventeen - Pestalozzi's Training of the Prussian Student-Teachers

The student-teachers at Yverdon first of all sent back reports on their progress to the Department as a whole. At Humboldt's request this formal procedure was dispensed with and replaced by an informal exchange of correspondence between Süvern and his charges. Humboldt was of the opinion that their views would be ascertained much more freely and in more detail by this method, which would also prove far more pleasant a task for both parties. The comments on life at the Yverdon institute contained in the student-teachers' letters to Süvern provide a very good insight into the various aspects of their training in the Pestalozzian manner.

On the 22nd June, 1809, Preuss reported[1] that the student-teachers now already belonged to the great family which Pestalozzi had gathered around him and that they were doing everything in their power to make themselves belong to it entirely. Pestalozzi, he wrote, had anticipated their wishes by saying straightaway that they could live in the castle in order to be able to be with him often and to learn how one had to deal with children outside the hours of instruction too. Above all, Pestalozzi acted towards them as his children and they in their turn loved and respected him as their father. They had already begun to occupy themselves with some of the elements of the method, namely with the unit and fraction tables in arithmetic, and with accidence in language instruction, in which some of the assistant teachers of the institute were giving them guidance. They had also started singing instruction under Mr. Hoffmann, as Pestalozzi put great stress on this as a first-rate medium of education; indeed the singing of the more practised children was delightful. He himself (Preuss) was also attending the lectures given by Niederer on the rules of German prosody and versification.

A letter from Kawerau bearing the same date related that in order to practise they were soon to begin to instruct several small French boys in German in accordance with Pestalozzi's views and under his direction. They were also soon to take part in the supervision of the small boys in the institute. Besides this activity, Kawerau added that he had to teach Latin for eleven hours a week, as well as being engaged in the teaching of arithmetical tables, accidence, drawing, and singing. Lessons for the student-teachers started at four o'clock in the morning and ended at eight o'clock in the evening; only four to five hours of the time were allotted to having meals and to the pursuit of one's own work and interests. However, this was only the case at the beginning; as soon as one had practised the basic principles of the method for some time, one gained more spare time. In any case everyone else in the institute was occupied in teaching classes from six o'clock in the morning until eight o'clock at night, so that the children were constantly under the supervision of the teachers, who had to watch over them even during their two or three hours of free time between lessons.

In a letter dated the 11th September, 1809, Preuss wrote that it was the subject of mathematics with which he was mostly preoccupied, because this subject, through the efforts of Schmidt, who was considered Pestalozzi's right hand man, had been developed to a degree of perfection which no other subject could boast; also because the characteristics of the method were nowhere expressed more clearly than here. In drawing, he continued, one started by causing the pupils to form, given certain limitations, such as parallel lines, right angles, pentagons and so on, beautiful and pleasing shapes and patterns, which each pupil freely

invented for himself and thereby cultivated the aesthetic sense. With this one combined exercises in perspective drawing, for the practice of visual judgement. In singing one followed the method established by Pfeiffer and Naegeli: one began the lesson by bringing the pupils to a pitch of sureness and soundness in the rhythm of the song and one practised the easy musical times, for example three-four time, until they could properly reproduce it even in the most difficult combination of notes. Only then did one go on to the melody. The teacher sang a note or played it on an instrument, and one did not go on to the following note until the pupils could reproduce it properly and could distinguish it from every note near to it in tone. When they were familiar with four or five notes one let them learn short songs for a change, which consisted only of the notes familiar to them. The learning and retention of the rest of the scale became very easy for them by the certainty of the notes learned earlier, so that their voices attained a range of eleven to twelve notes, within the scale of which there lay everything that one usually sang with boys. Not until then did one proceed to the more difficult times.

On the 12th September, 1809, Kawerau wrote that he had already realized that this educational method had the most beneficial influence on the true education of man, since it renounced the conventional and had as its aim the inner development of the physical, intellectual and moral predispositions and powers of man and, as Pestalozzi had once explained to him in a conversation, it also had the aim of placing those people unfavoured and held back by fortune in a position where they could become good and happy, independent of outward circumstances through the development of their latent talents.

Preuss reported on the 12th December, 1809, that Pestalozzi had often emphatically declared that it was by no means the purpose of his method to want to develop all people to be scholars, rather it was his aim to make men morally religious, understanding, and schooled for their occupations and artistic or technical skills. This, Pestalozzi said, was what all people should become, and it was towards this that his method was striving; unfortunately it could not be brought into full effect in his institute, in a boarding establishment where one had to be governed to some extent by the wishes and demands of the parents. For this reason he urged that the method should be distinguished from the institute.

On the 26th of the same month Henning wrote that the essence and aim of Pestalozzian geography teaching was the clear understanding and recognition of the earth as the explanatory arena of history in coexisting and successive life. The child's world is his environment, his surroundings. Within these he must first of all view the world and learn to understand it, in the clear understanding of his surroundings he must acquire the urge to go beyond his limited horizon; in that which nature has placed before his eyes at his place of birth there must develop his sense for the distant and the standard of all geographic science.

In his letter of the 5th February, 1810, Dreist declared his opinion that it was in the family that the real sphere of education was to be found; in the family itself education had to gain a new meaning, a new importance and a new direction. All institutes, poor schools and boarding establishments were only attempts to imitate the well-organized family as closely as possible. In this derived, secondary sphere of

education, whosoever made this latter education resemble the original, the ideal family, most closely, would prove to be epoch-making.

Henning on the 22nd March, 1810, found that the student-teachers were becoming more and more unified in spirit from day to day. Every Wednesday they met together and discussed the extension of their knowledge and the application of the method on the education of the mass of the people and were proud of their native country and their paternal government.

On the 25th March, 1810, Preuss wrote that he considered it important to draw the attention of children to their natural surroundings very early on and to give them the names of many objects such as animals, plants and stones, for the learning of which the thirst for knowledge or natural curiosity which most children possess provides the best opportunity. He suggested, however, that one should avoid reasoning about it, one should let them make their own observations, for an observation made by himself is inestimably more valuable to a child than any number of the most precise observations which are given to him, in which he has no participation. By early attentiveness to nature the child does not only easily gain a great deal of useful knowledge, but, what is far more important, he learns to recognize the great Creator in nature, and once his heart has been seized by it, then he would also contemplate the smallest moss, the smallest worm with reverence for God, he would revere the Lord in His magnificent creation. In this way, Preuss maintained, one could lessen the apathy which a great number of people unfortunately showed towards the wonders of nature and its countless beauties, one could open people's hearts to its gentle influences and impressions and in this way gain significant influence on moral thinking.

On the 23rd November, 1810, Dreist wrote that the thought of gymnastics for the people, for those classes which needed it, was one of the most elevated and desirable ideas for him, and he believed it would be truly Pestalozzian to start by helping the fathers at the same time as the children.

On the subject of language teaching, Kawerau stated in a letter of the 29th November, 1810, that the main importance was to bring the child to the point where he learned to observe his inner and outer nature and his outward surroundings properly and to express himself clearly and accurately; that therefore observation was the basis of language, and that the child must really have first attained a certain facility and fluency in the language, a considerable reserve of language material, before he became acquainted with the grammatical constructions; that in language exercises one had to proceed from the nearest environs of the child, from which it clearly sees and hears, in short, becomes aware through an inner and outer sense, what it is saying about them.

On their return these student-teachers became the nucleus of a corps of Pestalozzian teachers and were placed in positions of responsibility throughout the Prussian provinces as teachers or directors of teacher training institutes, as directors or teachers in secondary and elementary schools, and as educational administrators, with the deliberate intention of giving new life to the whole organization of Prussian education. These men proved to be diligent Pestalozzians in all their appointments[2] and zealous promoters of reform, and completely justified the hopes placed on them. By this means the schools of Prussia were speedily reorganized upon a new basis. Pestalozzi himself did not

forget his Prussian pupils and in his last letter to the department dated the 9th August, 1814, he wrote: "It is a long time since I have heard anything about the students who came here from Prussia - I hope that the esteemed Department will be satisfied with the success of their stay here, and that they will after a successfully completed war (1813) be employed in a way which will promote the educational designs for the sake of which they were here. We are continuing with success to complete our method more and more and to extend it to several subjects, and I hope that the esteemed Directory, which has for a long time shown so much confidence in my endeavours, will not withdraw this confidence hereafter and will henceforth use the developments of the method in their state".[3]

The students trained by Pestalozzi at Yverdon brought back two main convictions. Firstly, that the first condition of having good schools was to have good schoolmasters. Secondly, that to have these it was necessary to train them.

Chapter Eighteen - The First Steps to Introduce the Pestalozzian Training of Teachers for the Elementary School in Prussia

It has been seen that as a second means for the promotion of the Pestalozzian method in Prussia the establishment of teacher training institutes was vital. The appointment of K. A. Zeller (1774-1840) as Director of the Orphanage and of the Orphan School, and of the teacher training establishment to be attached to these institutions in Königsberg, had been considered as early as 1808. At the end of that year Dohna had renewed his inquiries and Zeller had written to him on the 27th January, 1809, from Heilbronn expressing his interest in such a scheme. On the 7th March, 1809, Dohna and Altenstein presented the proposal which had been drafted out by Nicolovius to the king on the occasion of the presentation of the report[1] which concerned the introduction of a better teaching method into the elementary schools. This report stated, as we have seen, that the method of instruction invented, constantly revised and extended, and practised for a number of years by the Swiss Pestalozzi, had overcome the doubts aroused against it in the beginning by its success in practice and by the assent which educational thinkers had given to the theory on which it was founded. Its undeniable advantages were that it developed all the inner power of youth in accordance with the nature of the human spirit and thus, with sure and speedy progress, imparted a genuine elementary education, which served as a firm basis for every further education and by this natural development at the same time kept the character pure and strengthened it. Its influence on the next generation would therefore be great. In Switzerland several Cantons had already introduced the method everywhere,

the Princess of Lippe-Detmold had done the same, and the King of Württemberg had decided to follow suit, after he had seen the success of this method in the previous year in Switzerland.

In the report the king was reminded that he had expressed himself favourably about this method several times in the past. Now it was only a matter of deciding the means to disseminate the method on a general basis into the Prussian states. Now was the time to advise the introduction of the method when, according to the king's intentions, the powers of the nation had to be aroused by whatever new discoveries were at hand. The main suggestion put forward in the report to accomplish this was that the Educational Councillor Zeller, who was acquainted with the method in all its details and had developed it particularly for the rural schools, and had established teacher training institutes in Switzerland for its general promotion (he was now employed in doing the same in Württemberg), should be called to Prussia to make a start with the introduction of the new education in East Prussia, to establish a teacher training institute at the Orphanage in Königsberg for future teachers as well as teachers already in service, and to continue this work gradually in all the provinces of the kingdom. If the king would grant this proposal, Dohna and Altenstein were of the opinion, in agreement with the Department, that the high aim to help to raise up the nation by the animation of all the powers which were still unused, in order to make the people more understanding and pious, would be achieved in the most effective way, and that by this example, that misfortune did not arouse dejection or despondency but new effort, the admiration and respect of foreign powers would be gained. The financial estimates were also laid before the king for his consideration.

In a memorandum about this proposal Süvern pointed out that however many student-teachers were sent to Pestalozzi, it would take three years before the first step could be taken, and not a moment could be lost. A means of achieving the rapid introduction of the new education already existed in Switzerland, in Canton Zurich. Here the town councillor Rusterholz had conceived the idea of a large training institute and a school for schoolmasters, in which practising teachers as well as newcomers were instructed in the improved method. Carl August Zeller from Ludwigsburg in Württemberg had been in Zürich in 1806 when this new institute had come into being and had been entrusted with its direction by the government. He had achieved great success, so that in 1807 of 204 schoolmasters only 10 were deemed unfit for the instruction of the improved method of teaching, all the others had accepted the new way and were putting it into practice. Zeller's idea, continued Süvern, had been taken up in many other Cantons. The Princess of Lippe-Detmold had corresponded with Zeller and as a result his teaching material had been successfully adopted there. The King of Württemberg had subsequently taken Zeller into his service to reform the school system in his state. Since then Zeller had been resident in Heilbronn.

Süvern suggested that this idea of the training of already practising teachers and supervisors together with aspirants to the teaching profession, which made it possible to introduce the system very quickly, should be put into practice by the Prussian state. The main points on which the planned introduction and extension of this idea depended were enumerated as follows:

1. All educators in each province were to be instructed in the new method.

2. In the four main parts of the Prussian state, Prussia, Mark Brandenburg, Silesia and Pomerania, a Central Institute was to be set up, built onto the Orphanage, to serve as a training institute for future and practising teachers.

3. Preachers, church and school supervisors were to take courses in the new method.

4. As soon as the school inspectors, school and orphanage supervisors had had practice, the best orphanages of the province were to be established as affiliated institutions to train the children in them as teachers and at the same time to train the teachers of the district in the method, as well as to make the local preachers acquainted with it, in order to firmly establish the method in the schools. In this way the method could quickly spread; the state did not lose its established teachers, whilst a generation of children could be educated as teachers. The orphanages could become noble establishments and could save the costs of founding new training establishments. This by no means made the sending of Prussian student-teachers to Pestalozzi superfluous: the best pupils would still be sent to him to return filled directly with his spirit. It would be best if Zeller were given a free hand, with his base in Königsberg, because this was a good meeting place and already possessed the greatest number of educational establishments of all kinds. The Royal Orphanage with its thirty orphans would provide an ideal basis for the new training institute there.

All these proposals put forward by the Department as a whole, and often emphasized again by individual members of it, were granted by the king in the Cabinet Order of the 15th March, 1809. On the 9th June Zeller's installation took place as "privy councillor with a seat and a voice in the government of every province in which he found himself at any time for the organization of the aforesaid institutions".[2] He was also permitted to take with him an assistant, Grieb, who had been trained at Yverdon.

The Prussian authorities had not been mistaken in assessing Zeller's power; he possessed the gift of enlivening people who were spiritually dead and filling them with enthusiasm for his ideas. That he did not work in vain in Prussia in spite of his well-known personal extravagances and peculiarities, is proved not only by the heartfelt gratitude of the Prussian government, but also by the circumstance that his successor, Dinter, was able to attain such excellent results on the ground that Zeller had prepared. Zeller was, as Pestalozzi had said of him, a "genius of feeling",[3] who could arouse and make people enthuse about education. His effectiveness was somewhat blunted, however, by his Swabian pietism and his conceit, which led him into tactless acts and eventually brought about his dismissal.

In Württemberg Zeller had written his work "School for Schoolmasters"[4] on the subject of teacher training. He was now able to put his ideas into effect in Prussia. By the organization of teacher training institutes and schools in the Pestalozzian spirit he founded a new epoch in the history of Prussian education. The Prussian Queen Luise took the liveliest interest in Zeller's educational efforts; she often conversed

with him whenever she stayed in Königsberg and visited his institute there. She had read Pestalozzi's writings "Leonard and Gertrude", "How Gertrude Teaches her Children" and "The Book for Mothers" and was enthusiastic about Pestalozzi's educational endeavours. She too expected the regeneration of the living generation through the general introduction of the Pestalozzian method of education and instruction. In her diary she wrote: "I am now reading 'Leonard and Gertrude. A Book for the People' by Pestalozzi. How refreshing this story of the Swiss village is! How good are his intentions for the people! Were I my own master, I would get into my carriage and go straightway to shake hands with that noble man in Switzerland, to thank him with all my heart. How deep is his love for his fellow men. Yes, in the name of humanity I thank him".[5] Zeller's teacher training institute which the Queen saw in Königsberg was devoted entirely to furthering Pestalozzi's principles and hundreds of young elementary school teachers were educated and trained there. The greatest number of lectures in this and other institutes propounded detailed expositions of the fundamental educational truths advanced by Pestalozzi, although Zeller rejected the Pestalozzian system of teaching dimensions and proportions and in arithmetic teaching omitted the Pestalozzian tables.

Another German educational eader, Wilhelm Harnisch (1787-1864), who had come into intimate contact with Friedrich Ludwig Jahn (1778-1852), the founder of German athletics, in Plamann's institute in Berlin, was also chiefly interested in teacher training. Part of that training was concerned with physical education. Jahn had conceived the idea of restoring his countrymen's morale through gymnastics. The young men who joined his open-air gymnasium - founded in Berlin in 1811 - were taught to regard

themselves as a king of guild for the emancipation of the h'miliated Fatherland, hardening themselves for a future struggle for .iberation. This tradition, linked with Pestalozzi's ideas on physical ducation, became central to German education throughout the nineteenth century. Its schools, called "gymnasiums" after Jahn's, (84 "Gymnasi n" of the Jahn type were established in Prussia), combined physical education with the teaching of German culture as part of the struggle for a unified German empire. In 1812 Harnisch published a book about Pestalozzi's basic principles entitled "Schools for the People, on Pestalozzian Principles". "I have been inspired", he wrote, "by the ideal of a popular education for the development of a community which shall include the whole nation and all the people".[6] The book established Harnisch's reputation in the field of education and made him, at the age of 25, head of a teacher training institute at Breslau.

The extension of the Prussian-Pestalozzian system was largely due to the man who gave it this name, F. A. Diesterweg (1790-1866). He was a teacher and successively director of two teacher training establishments. He was a liberal writer and publicist on education, organizing educational associations and championing the cause of the common schools and their teachers. His significance for teacher training was that he campaigned vigorously and constantly for better salaries for teachers and for improved teacher education.

Chapter Nineteen - The Prussian-Pestalozzian Teacher Training Establishments

Many of the teacher training institutes in Prussia were founded as private establishments which were later turned into state institutions. The founders were usually hard-working clerics, the installations often very poor. In Fritzow by Kammin the pastor's living room served as a school and workroom for thirty pupils. Even Dinter first had a private training establishment in Ritscher where he was the country vicar, and the institute in Alt-Döbern (Niederlausitz) was also originally a private institute which was similarly taken over by the state and extended. By nothing else is the progress in the elementary education system better characterized than by the fact that the preparation of elementary school teachers in special educational institutions now became the rule. A considerable number of schoolmasters still attained office without training, but this was only permitted as an emergency measure because of the shortage of teachers and the unfavourable national circumstances. Educators now expressed their unreserved opinion that the universal training of teachers was a necessary condition for the desired elevation of both elementary education and the standing of the elementary school teacher. Beckedorff's principle that "to acquire good schools, one must have good teachers" became the order of the day.

The theologians who were usually directors of the training institutes had no light task. Even as director Dinter, for example, had 32 hours of actual teaching and lecturing a week. The task was made more difficult by the sparse elementary education of many of the candidates, which provided an unsatisfactory foundation on which to build. Progress

could only be made with a great deal of hard work and effort filling in the gaps in general education in the first instance. The building housing an institute was usually a simple superannuated structure with two or three sparsely furnished classrooms and one or two practice rooms, unless the institute was annexed to an orphanage or a school for the deaf and dumb. In the latter case the director of the main institution was also head of the training institute, which as a rule contained no more than 60-70 students. There was at this time no uniformity in the age or the procedure for admission or the duration of the course, although this usually lasted either two or three years. According to a government decree of the 2nd September, 1810, the religious confession of a student was no longer an obstacle to admission.

The majority of the institutes were non-residential establishments, the students lodging with the local people. If the institute was a boarding establishment, the students paid a small boarding fee but no tuition fee. The state provided financial aid for the more impoverished students in many cases, on condition that those aided students educated in state institutes accepted the first post offered them after their training and stayed in it for the first three years.

The nature of the course offered depended entirely on the director and on the experience and education of the students enrolled. In Dinter's institute in Saxony work proceeded on the principle that it is not the quentity of knowledge accumulated that makes a teacher, but the lucidity, skill and control displayed in the presentation of limited material. Apart from the usual technical subjects, training was given in doctrinal

theology and ethics, in biblical history, in bible study and bible reading, in pedagogy, method, in mathematics, grammar, nature study, geography and history. The teacher must know more than the farmer's boy needs to learn and use, was Dinter's principle. Therefore in mathematics he went as far as the extraction of the square root, practised the beginnings of algebra and the teaching of vulgar fractions. Knowledge of the structure of the human body was also considered essential by Dinter. Even two-year courses tried to include most of those subjects. Freedom, work and love, allied with a religious sense, were the chief means by which Dinter tried to lead his students to their goal. It seemed natural to him that his students should ask questions in lectures, even in the final leaving examination, which was held publicly by an examination committee and usually presided over by a member of the Consistory. The subjects for examination were: catechizing in the upper and lower class, doctrinal theology and ethics, bible interpretation, biblical history, singing, arithmetic, German grammar. In addition every student had to undertake three trial lessons.

In Silesia the orphanage in Bunzlau was organized in Pestalozzi's spirit and in accordance with his method, in combination with a teacher training institute in which the Pestalozzian ideas were to be put into effect. Henning, Dreist and Kawerau were appointed as teachers at this institute. The orphanage school was to have as its main objective a true elementary education, an education which was needed as much by the son of a prince as by the son of a cowherd. This "true elementary education - the connecting of all subjects to be taught with the beginnings or elements existing in human nature and in life"[2] included the following subjects:

religious instruction of a purely biblical nature, the whole range of language teaching - teaching to think, speak, read and write, leading to skill in oral and written expression, singing, arithmetic, geometry, drawing, geography, nature study, history, gymnastics - aiming at physical fitness and dexterity. Amongst the suggestions made by the director are the following: "If the pupil has advanced in the cycle of this elementary education to the point where his ability for observation, thinking and speaking has been practised, the self-educating instinct has been aroused, all intellectual, moral and physical powers have been proportionately increased, then a second cycle can begin for him, which will consider more the needs of civic life in certain social ranks. In teaching one should have complete regard for the Pestalozzian method, one should begin by observation in all things and progress to conceptual comprehension in well-ordered, step by step and uninterrupted sequences, everything developed independently by the pupil, a harmonious cultivation of all intellectual powers, a balance of erudition and ability, of real and formal education striven after, instruction and education being imparted according to nature and prevailing culture".[3]

We learn more about the development of the teacher training establishments at this time by following the development of the training institute in Weissenfels. It was founded by the government of the Electorate of Saxony as an independent state institution in 1794. Instruction was given in eighteen teaching periods by three town teachers in their official residences: the students were former grammar school pupils, who earned their living as private tutors and in addition received ample grants. In 1801 the institute received a director, a senior and

assistant teacher and special teaching rooms were provided. Local supervision of a general nature was transferred to the school superintendant as inspector of the institute: specific supervision and management was a matter for the director. Some of these arrangements unfortunately had a very disadvantageous effect on the growth and development of the institute; a great deal of the students' time was especially taken up by Church musical performances. One must also bear in mind that the state did not possess the power to compel the local communities to appoint trained teachers, indeed the communities mostly preferred the more economical, non-trained teachers, with the result that the state was often compelled to maintain some trained teachers in the institute until employment could be offered to them. On the other hand a considerable number of poor students were forced to leave the institute before the completion of the two-year course because they were unable to provide the continued costs of maintenance; they left to take up posts in schools as lesser paid, untrained teachers.

Conditions became more favourable when the institute came under Prussian control in 1815. A short time before this the institute had received its own building and a special practice school and had become a boarding establishment. After a thorough examination of the existing circumstances, which showed many shortcomings, Harnisch was appointed as director from Breslau and through him Hentschel, Stubbe and Lüben were appointed as teachers in the institute. Harnisch received the independent direction of the institute; this power was thus taken away from the superintendent and it also meant that the disruptive use of the students for Church musical performances was suppressed.

Harnisch made the establishment into a model institute in accordance with Pestalozzi's ideas. About the tuition given in the institute he said: "It is the aim of the institute to educate by instruction and to do this in a threefold way:

1. by causing the instruction to stimulate much thought and activity, that is, to make the greatest demands of the young person;
2. by instruction being given in an attractive way and
3. by enhancing the whole person by having influence on heart and head".[4]

It was the "destiny of the institute", according to Harnisch, "to train teachers for the elementary school". The goal of the elementary school teacher "will therefore accordingly have to be of a more practical than theoretical nature, and the subject of instruction will indeed have to be the (Pestalozzian) method and its practice. Mere factual knowledge, although it is the necessary basis and the condition of all instruction, does not make the teacher, but primarily the science of handling it and skill in the business of teaching. Therefore both the subject to be taught and the method are to be combined in such a way in the training of the student teachers, that they learn at the same time to distinguish between the material things which they receive during instruction and the operation of the teacher, so that their capacity to comprehend and to represent is at the same time occupied and strengthened. This occurs through the constant retention of the student's reflection in the art of teaching, through the process of teaching adopted with him and through the opening of his faculty for self-observation... In this way he becomes, at the same time as he learns himself, a capable teacher of others".[5]

Pestalozzian education in the form which Harnisch had given it

was carried out in its entirety in practice in the institute and the teachers thoroughly schooled in it. Theory and school practice went hand in hand, for the teachers of the institute, as well as lecturing, also gave 10-12 hours of lessons in the practice school as models for the students, who were only called upon to assist in the school and in departmental instruction. At a later date a preparatory institute was established; the preparatory students were used as assistants in lessons and were taught themselves after school was over. This kind of preparatory establishment was Harnisch's ideal; as well as the teachers of the main training institute, tuition was also given by a special teacher for these preparatory students.

To animate the zeal and competitive spirit of student teachers throughout Prussia, three grades of attainment were generally introduced for the First Teachers' Examination. Various advantages accrued on gaining either Grade I or Grade II. Candidates with Grade I could be appointed to permanent posts immediately and were exempt from the Second Teachers' Examination. They had to take this only if they had not found a post within three years of the First Examination. Those with Grade II were at first appointed on a provisional basis. Only when they had proved themselves in the two-year probationary period by "praiseworthy, moral conduct, by hard work in their training, and by faithful and skilful execution of their office"[6] were they permanently appointed, without taking the Second Examination. They were in the hands of the school inspector and superintendent and could take the Second Examination to gain Grade I and thus a better position if they so desired. Those with Grade III had to be satisfied with the lesser posts and were compelled

to take the Second Examination in the training institute after their probationary period. Only those teachers with Grade I were usually able to obtain positions in the town schools, which often went beyond the bounds of learning of the rural elementary schools.

At Yverdon Pestalozzi had developed the idea of a liberal professional training of teachers; liberal, that is to say, as opposed to a merely mechanical training in the employment of particular means, liberal as differentiated from mastering a particular technique. The necessity of securing a good general education for future teachers in elementary schools in Prussia gradually led, under Pestalozzi's direct influence, to the abandonment of the idea that teacher training institutes should be devoted primarily to professional studies. Pestalozzi's ideal demanded first a good liberal education free from all professional bias and lastly a period of purely professional training. It is true that his ideas were of the first significance in teacher training in Prussia, but in variance to his ideal there often developed in the training institutes a mixture of academic and professional elements in which the academic tended more and more to displace the professional. Neither at Burgdorf or Yverdon had Pestalozzi hinted at a suggestion of such a conflict of aims in teacher training.

The Prussian teacher training institutes established on Pestalozzian principles became and remained for a long time models for the whole of Germany. In 1806 Prussia had eleven training establishments, by the time of Pestalozzi's death the number had risen to 23. Those founded during this time of expansion were: Amberg and Innsbruck (1809); Braunsberg (1810); Zittau and Esslingen (1811); Dillingen and Eichstädt (1813);

Cöslin (1816); Potsdam, Graudenz, Neuzelle, Eisenach, Bautzen, Kaiserslautern, and Friedberg (1817); Neuwied (1818); Erfurt and Mörs (1820).

Chapter Twenty - The Work of Pestalozzian Educational Administrators for Elementary Education in Prussia

Besides the directors of teacher training institutes, there were capable school administration officials who had great influence on the formation of the elementary school system through the introduction of a better method on the basis of the Pestalozzian education into the schools and by the improvement of teacher training at an administrative level. After Zeller's appointment to Königsberg in 1809, there followed in the same year the appointment of the preacher and experienced teacher Natorp (1774-1846) as Ecclesiastic Councillor in the Ministry and as School Inspector of the Electoral Government in Potsdam. Natorp had already devoted himself to education at the University of Halle under Niemeyer's influence; he had not only attended the latter's lectures but had also attended lessons in Francke's school institutions. He had gathered further experience as an institute teacher, and as a preacher in Essen had rendered great service in the organization of the school system there. Here too the elementary schools had been, in Pestalozzi's words, "artificial suffocation rather than educational institutes",[1] and a school commission under Natorp had made a report about the shortcomings of the elementary schools and had put forward suggestions for improvement. His experience here had occasioned Natorp to write his work 'Outline for the Organization of Common Town Schools" which appeared in 1804.

The introductory part of this work contains a discussion of general education in the Pestalozzian spirit. "It is sad, very sad", he states in the work, "to realize how little the school establishments have

achieved until now for education, for if our elementary schools were of the right kind, then in them there would be laid the foundation for this general education: the senses would be exercised, the attention aroused, the intellect sharpened to reflection, the power of judgement animated, the sense for the beautiful and the good brought to life and the organ of speech formed".[2] He then suggests that a town school should be established with two lower classes for elementary education and three upper classes for the further training of the townspeople's sons who had the time and the means. For these there should be training in mathematics, drawing, technical science, history, geography, nature study, practical logic, French, and constitutional and legal studies. In the lowest classes, according to Natorp's suggestion, the foundation was to be laid with exercises in observation, comprehension and speech, with simple moral tales, drawing, manual work or needlework, singing and playing, and the first reading exercises.

As far as this goes Natorp is the complete Pestalozzian, but he already demands that the Pestalozzian interpretative and speech exercises, which are mostly avoided, should not be separated but should be combined in a simple way with every subject to be taught. About religious instruction he says: "It is high time that one should turn from the soul-deadening mechanization of the abominable system of catechizing and provide a method for the education of the youthful mind which is in accord with the nature of the human spirit; least of all should one hold fast to the prejudice that the inclination towards virtue and religion must best be promoted by the reading of biblical narratives, the learning of the decalogue, the penitential psalms and many biblical texts". One should instead, he

suggests, instil in little children "the simplest concepts of love and right and in so doing allude to God, who is the Creator of all that exists and reveals himself in all His works and ways as a wise and loving Father and a Holy Lawgiver".[3]

As the result of his educational writings and successful application in practice Natorp received the supervision of the Bochum school district from the Prussian authorities. This was before his appointment to Potsdam. In Bochum he held educational conferences where the individual school subjects were first discussed and then applied in the schools in their amended form, and he sought above all to promote the training of an efficient and qualified teaching body. Although completely filled with the spirit of Pestalozzian education, he was nonetheless no blind adherent and imitator; the basic thoughts of the great Swiss educator did indeed find a great supporter in him, but in matters of detail he often went his own way. "As far as Pestalozzi is concerned", he said, "I have only sought with well-considered, reasonable and prudent zeal to secure acceptance for his educational and didactic ideas".[4]

On arriving in Potsdam, he considered it imperative above all to train better teachers in the remodelled training institute there and by organizing courses and conferences for practising teachers to bring the main teachings of the new instructional method into the teachers' world less by way of theory than by demonstration and imitation. He also set out to improve the professional and social standing of schoolmasters by the raising of salaries, the improvement of living accommodation and classroom facilities. In all these directions Natorp's influence was very successful. Thus he could already write in 1811: "In many schools important improvements

are already visible; one finds already a better arrangement of equipment - wall blackboards, Stephani's wall primers (spelling tables), a sufficient number of primers and other school-books, and school slates, all of which are provided in the school inventory; in most places the school money is regularly raised and a fixed stipend paid to the teacher; in some places progress has also been made in the improvement of the teaching method".[5]

Just as Natorp operated in the west and in the centre, so Dinter worked in the east of Prussia. Dinter's importance lies mainly in his extraordinary activity and effectiveness in striving for the improvement of the teaching given in elementary schools; he worked at this as a preacher, as director of a teacher training institute in Dresden (1787-1807), but particularly as a school inspector in Königsberg. He introduced, especially in the last-named position, the ideas gained in recent times from the Philanthropists and from Pestalozzi into the elementary schools, at the same time freeing them of extremes and adapting them to existing conditions. However much, despite his excesses, Zeller had already achieved, the state of the elementary school system in East Prussia was still very poor. "Shortly after my arrival", Dinter relates, "I inspected 43 rural schools and two town classes in one tour, and in none of these was there a child who could compose a letter on his own. On one of my last inspections", he continues, "I found only seven schools out of 67 where the industrious pupils could not do this".[6]

Dinter had to struggle with the greatest difficulties which he mostly did not have the power to eliminate. Above all there was still a lack of professionally trained teachers; as well as the few efficient and qualified teachers there were still many others who only crammed in

the catechism, taught meaningless reading or were mere "Pestalozzianism-mechanizationists". In one school Dinter found a teacher with Pestalozzi's "Book for Mothers" in his hand. When asked what he was doing, the teacher replied that he was practising the Pestalozzian method: he read out the questions and the answers and had them repeated by the class. Dinter's aim was to train such teachers in the true spirit of Pestalozzianism and above all to ensure that the bad teachers were removed from office wherever possible, unless they too could be trained and could familiarize themselves with Pestalozzi's method purified of one-sidedness.

In the schools under his direction Pestalozzian observation practice, as well as thinking and speaking exercises became the foundation of elementary education. Reading was preceded by speaking exercises in which the children had to analyse words and syllables and spell easy syllables from memory. It was a sign of the advances that were made under his leadership that he demanded preparatory exercises before the art of learning to write was attempted, and that these exercises had an orderly gradation. Spelling, essay and letter writing were practised methodically, the former by correct and clear enunication when reading, spelling from memory, copying, and the explanation of simple rules by suitable examples, the latter by accustoming pupils to coherent answering and recounting, reading and transcribing. In arithmetic he did not separate mental and table arithmetic but placed them in the most intimate relation with each other. He would also have liked to include geometry in his timetable, but there was not usually enough time to pursue this.

Wherever religion, reading, arithmetic and writing were deficient in his schools, Dinter did not allow the subsidiary subjects, amongst which

he counted natural history, geography, history, and systematic grammar, to be included in the timetable. However, as soon as any deficiencies in the basic subjects were remedied and it became possible to include other subjects, he demanded above all for the most indispensable exact sciences a methodically planned course of instruction and a fixed place in the timetable, not merely occasional and incidental tuition and random gathering of information through reading.

With regard to instruction in natural history Dinter wanted to have assimilated whatever was important in an economic, technological and religious respect and had influence on life and health; the subject of natural philosophy and physics was to elucidate the causes of natural phenomena and fight against superstition. In both these subjects the procedure in lessons was to be genetic and inductive, that is, to begin with observation and lead to the system and to the laws governing them, for the understanding of these was important in the formation of the intellect.

Although in geography Dinter still began with a systematic review of the earth, he nevertheless followed the demands of Pestalozzi to the extent that he caused it to come after a synthesizing course starting with the home-town and leading to the fatherland; the latter was to be taken into particular account, and it may be said that Dinter stressed the political-statistical factor too greatly. In the teaching of history he freed himself admirably from the old practice which began with the definition of the periods of history and endeavoured to impress on the memory a chronological framework of names and dates. In contrast to this he recommended a biographical-monographical arrangement of the teaching

material, demanded the consideration of the history of civilization and religion and the examination of the course of development of the present from the past, in which the fatherland had to be particularly taken into account once more. He placed special value, too, on religious instruction, for which he opened up new paths. In the other subjects of instruction, as in school discipline, he found no new ways but often made them more practicable.

Naturally Dinter sought most actively to promote teacher training in every way. By now there were four institutes in the administrative district of Königsberg; the course at these lasted two years, but as students had often to be accepted without the necessary preparatory education, the results were not always all that one could have hoped for. A further disadvantage was that only a very limited number of teachers could be trained in the institutes, so Dinter pursued the method whereby other students were trained by efficient practising teachers, headmasters, and in emergency training establishments. He tried to prevent the employment of non-trained teachers as far as this was possible, ensuring at least that all prospective candidates for the teaching profession underwent an examination conducted by the school inspector and the lecturers in the training institutes.

As the result of the activities of such educational administrators as Natorp and Dinter, and the excellent training carried on in many of the newly founded independent teacher training institutes, which provided many varied courses, most of which were based on Pestalozzian ideas, the elementary school teachers gained in general respect and came to be regarded as a professional body. The education given in the new elementary schools began to take on a pattern and to achieve a fame which was to become the envy of the world.

Chapter Twenty-one.- The New Pestalozzian Elementary Schools in Prussia

The serious endeavour which the Prussian government was making to improve elementary education by the introduction of Pestalozzi's ideas was exemplified in 1812. In that year all Germans rallied to the flag and the teachers did not want to lag behind in the fight to free their country from bondage. However, the government made a policy of retaining a number of them in teaching service, especially teachers in training institutes. In a report issued at this time it was stated that the reason for doing this was "because the teachers in the teacher training institutes are trained and chosen with diligence and care to train teachers and educators who are to found an elementary education in the rising generation which is to preserve us for ever from spiritual foundering, through which we have fallen into the extremely wretched situation from which we are just beginning to extricate ourselves".[1] It has been seen that the basis for a great school system had been organized by Frederick the Great, but now for the first time a determined effort was being made to make the elementary school a reality in Prussia, filled with a genuine content and the Pestalozzian spirit. Pestalozzi had said: "I want to subject the mechanical form of all instruction to the eternal laws, according to which the human spirit elevates itself from sensory perceptions to clear concepts".[2] Like Pestalozzi, Prussia now made the education of youth the basis of the whole moral life of the people.

Universal compulsory education now became a fact in Prussia; school administration was made more of a state affair and more than ever

before the authorities turned their attention to school supervision and inspection. In spite of the pressures which were placed on community and state in these times of national distress, steps were taken to build more schoolhouses, especially in the villages, and to improve the needy conditions and provisions of the teachers. Although the Legal Code had recognized the teacher as a state official, it was only at this time that he became this in fact, through the introduction of an attestation upon oath. A new life had been aroused in the teaching profession; Pestalozzi's spirit had seized the hearts of the teachers, the young teachers brought this spirit with them from the teacher training institutes directed by Pestalozzi's pupils and kindled the flame among the older ones.

There had been formed in Prussia a school of educational thought which comprehended the basic concept of Pestalozzi, that the school had to develop and train what existed in the pupil as a germ, an embryo of life, together with a Christian and patriotic consciousness which would bring about the elevation of the Prussian people. By means of a series of periodicals, amongst them the "Rossel Monthly Periodical", Beckendorf's "Year-Book of Prussian Elementary Education", Zerrenner's "Newest German Schoolfriend",[3] the "Candid Year-Books of the Common German Elementary Schools"[4] by Schwarz, the "General Schoolpaper",[5] the ideas of the Pestalozzian system of education were disseminated further and further afield. From the teacher training institutes the new method was spread to all the provinces and in the larger towns the school system underwent fundamental reforms. For example, in Silesia in 1817, the town of Breslau went ahead with the founding of Protestant elementary schools. Five of

these common schools were founded, in addition to Poor or Free Schools for both Protestant and Catholic children from poor homes. The provisions for the teachers in the common schools included wood for heating, two thirds of the fixed school fee for boys of 75 Pfennigs, and a salary of 300 Marks. The local parish and monastery schools usually had to satisfy the educational needs of the Catholic children, but since this need could not be met, the authorities also founded Catholic elementary schools. This healthy attitude of educational provision for all without regard to denomination manifested itself throughout the various Prussian provinces.

The older Pestalozzians in Prussia became the instructors of a great number of their successors who took up posts in the new schools, and in this way the traces of an improvement of the elementary school system soon became noticeable. The task of the elementary school was now considered in the Pestalozzian sense. The new school was to be neither a Church school nor a learned school, but an institute to develop and practise the child's capacities for a formal education in the new spirit. The harmonious development of all the child's powers became the prime concern, and the curriculum was extended according to Pestalozzian principles. Pestalozzi recommended instruction by carefully graded steps, employing object lessons for sense experience and using the oral approach to all subjects; this basic idea of observation came to be employed universally in the Prussian schools, the step by step development and progress of the power of thought and speech. The curriculum was reformed "to answer at least in part to his (Pestalozzi's) fundamental doctrine that the schools should prepare for life".[6] New methods of teaching and presentation were worked out, based upon the tenet that "interested observation is

the child's natural way of collecting material which the mind spontaneously, though imperfectly, systematises".[7] The course of instruction in the elementary school was usually divided into three periods, sometimes four, each of two or three years. In the first of these, from the age of six to eight or nine (the lower limit of compulsory school attendance had been fixed at six), the senses were exercised for three hours daily in the approved Pestalozzian manner to form a sound basis for later instruction. The subjects of instruction themselves were "systematised, illustrated, and variously prepared for school purposes by competent authorities who grasped the true teacher's point of view".[8]

Chapter Twenty-two - Arithmetic in the Prussian-Pestalozzian Elementary School

"If I look back and ask myself", Pestalozzi said, "what I have really done towards the improvement of the methods of elementary instruction, I find that in recognizing observation as the absolute basis of all knowledge, I have established the first and most important principle of instruction".[1] Calling attention to the fact that learning to read and memorizing the catechism had become the fundamentals in the so-called elementary education given to the people until recent times, he declared: "In Europe the culture of the people has ended by becoming an empty chattering, fatal alike to real faith and real knowledge; an instruction of mere words and outward show, unsubstantial as a dream, and not only absolutely incapable of giving us the quiet wisdom of faith and love, but bound, sooner or later, to lead us into incredulity and superstition, egotism and hardness of heart... Everything confirms me in my opinion that the only way of escaping a civil, moral, and religious degradation is to have done with the superficiality, narrowness and other errors of our popular instruction, and recognize sense impression as the real foundation of our knowledge".[2]

What Pestalozzi meant by the "necessity of basing instruction on sense perception" can be best illustrated by the following examples from his own works with regard to arithmetic. In his "Journal" of 1774, Pestalozzi described how he tried to teach his son arithmetic: "I tried to make him understand the meaning of numbers. At present he knows only their names without attaching any precise meaning to them. The child has been in the habit of associating no difference of meaning with the various names of numbers he pronounces... Why have I been so foolish as to let

him pronounce important words without taking care at the same time to give him a clear idea of their meaning?"[3] In "Leonard and Gertrude" we are given examples of how he followed up this theory: "The instruction (Gertrude) gave them in the rudiments of arithmetic was intimately connected with the realities of life. She taught them to count the number of steps from one end of the room to the other; and two of the rows of five panes each, in one of the windows, gave her an opportunity to unfold the decimal relations of numbers. She also made them count their threads while spinning, and the number of turns on the reel, when they wound the yarn into skeins. Above all, in every occupation of life she taught them an accurate and intelligent observation of common objects and the forces of nature".[4]

The general significance of Pestalozzi's influence on the development of elementary arithmetic can be summarized by the following words: "The evolution of the teaching of primary arithmetic extends over a period of about 200 years, although numerous sporadic efforts at teaching the science of numbers to young children had been made long before the founding of the Francke Institute at Halle (1694)... It is, however, to Pestalozzi, at the beginning of the nineteenth century, that we usually and rightly assign the first sympathetic movement in this direction, and it is the period from that time to the present that has seen the real evolution of the teaching of arithmetic to children in the first school years".[5]

Oral instruction and objective methods formed the basis of Pestalozzian elementary arithmetic. As in all other subjects, Pestalozzi used arithmetic lessons too for purposes of language instruction at the same time. This mixture of training in general observation, number combinations and oral expression can be illustrated by a typical lesson from Pestalozzi's own school. First of all the teacher rearranged some beans on his desk, asking the children to look away while he did so. The teacher then asked if any change could be seen in the position and number of the beans. The pupils observed that the beans were further apart, now lying in a crooked row with the germs on the right side; there was no change in the number, there were eight as before. The teacher asked them what he was now doing; they replied that he was taking away two beans, leaving six. The teacher then wanted to know what one said when two beans were taken from eight beans. He received the correct answer that two beans taken from eight beans left six beans. This kind of number work with actual objects was followed by work with charts in which appeared various combinations or groupings of straight lines or dots, each line or dot being considered as a unit. This sort of Pestalozzian number chart or teble, which was intended as an objective aid to bring the facts in teaching number combinations before the pupil's perception, formed a prominent feature in most Pestalozzian schools. According to Pestalozzi, the arithmetical "mental processes" of the pupil were the most important factors in arithmetic study. This was interpreted to mean either the special mental operations concerned in working out a particular problem, or the general mental processes of judging and reasoning, which Pestalozzi believed could be trained. Two consequences

resulted in practice from this emphasis on the child's thinking: firstly, in order to eliminate the old emphasis on "ciphering" according to rule, all written arithmetic was postponed until the child had made considerable progress in mental or oral arithmetic; secondly, to assure that the pupil retained real number concepts instead of mere words, all elementary number combinations were learned by the arranging and grouping of material objects, lines or charts, instead of being simply memorized. New text-books were not slow to appear in Prussia, in which the idea of the acquisition of formal dexterity was subordinated to that of training for actual life by means of concrete examples. It is true that Joseph Schmid, von Türk, and Kawerau, all at one time or other Pestalozzi's pupils or members of his staff, each published books on mental arithmetic which emphasized its formal value, that is, the logical training which is given by abstract mathematical exercises, but even for them all early work with numbers was based on concrete methods.

This basic principle of the Pestalozzian system of arithmetic, dissolving all the rules into their elements and resting them on the evidence of the senses, was developed and refined in the Prussian elementary schools. The first step was to make the children count the objects which surrounded them in class. When they could accomplish this with ease, the teacher would give them numerous small objects such as beans, pieces of wood, and so on, to enable them to enlarge their number capacity. The four fundamental rules of arithmetic, addition, subtraction, multiplication and division, could then easily be interwoven. For example, give five beans, how many would the pupil have to add to make eight; how many would he have to give to his friend, if he was to keep only four for himself; how

many beans would each one receive, if six beans were to be divided between two boys; how many times would the pupil have to receive three beans from his friend, if he wanted to have nine. Every time a pupil was unable to answer, the beans or other objects were placed before him, so that he could find and work out the answer in a practical way. When these preparatory exercises had been practised for some time, abstract numbers were introduced, their import usually indicated by the Pestalozzian charts of lines or dots. This was done in the first instance with very low numbers, and the progress to higher ones was very gradual; after some time, arithmetic in figures was united to mental arithmetic, and abstract accounts were intermingled with others of an applied nature. The theory of fractions was also deduced from the evidence of the senses, and afterwards the proportions were explained and retained by numerous exercises. Lastly, arithmetic was applied to geometry, a subject largely neglected by Pestalozzi, but neither algebra nor the extraction of quadratic and cubic roots were taught in the rural schools, usually because of lack of time, although the town schools often taught these too.

It has been observed that every elementary school was usually divided into at least three sections, even when there was only one teacher, and the whole arithmetic course was distributed accordingly. In the first section or class (6-9 years), the preparatory exercises were practised, including mental arithmetic in whole numbers for the four fundamental rules. In the second class (9-12 years), progress was made to mental arithmetic in the decimal system, arithmetic in figures in whole numbers, and fractions with figures and without. The third class learned proportions and applied all that had been learned to actual examples, with figures and without.

The course adopted for teaching geometry was very similar. It did not begin with definitions, but with instruction through the evidence of the senses. The regular geometrical bodies were shown to the pupils and they themselves were encouraged to find out the differences without explanation. Thereupon the teacher would point out the forms, explaining planes and lines as the boundaries of the bodies. The theories of form and space were not separated; lines, planes, and bodies were always treated together, as constituting one object. The three divisions of classes were observed here too. In the first, the knowledge of the forms of the bodies was acquired through the senses, in the second comparison and measuring was carried out, and in the third the knowledge of proportions was consolidated. The material was arranged by the teachers according to Pestalozzian principles, so that the succeeding instruction did not only appropriately follow the preceding, but was also partly deduced from it. At the same time the teacher had to avoid problems which had little connection with the business of life, and had to see that he introduced in his instruction the kind of material and learning that occurred in the mechanical trades, such as that of carpenter, cabinet-maker, brick-layer, wheelwright, cooper, and so on.

Chapter Twenty-three - Language Teaching in the Prussian-Pestallczian Elementary School

From the third class that Pestalozzi taught at Burgdorf in 1800, we receive one of the clearest examples of Pestalozzi's object teaching as applied to the study of the native language. One of the pupils wrote: "The language exercises were the best thing we had, especially those on the wall-paper of the schoolroom, which were real practice in sense impression. We spent hours before this old and torn paper, occupied in examining the number, form, position, and colour of the different designs, holes, and rents, and expressing our ideas in more and more enlarged sentences. Thus he would ask: 'Boys, what do you see?" Answer: 'A hole in the paper'. Pestalozzi: 'Very well, say after me: I see a hole in the paper. I see a long hole in the paper. Through the hole I see the wall. Through the long narrow hole I see the wall. I see figures on the paper. I see black figures on the paper. I see round black figures on the paper. I see a square yellow figure on the paper. By the side of the square yellow figure I see a round black one. The square figure is joined to the round figure by the large black stripe', etc."[1]

The primary purpose in teaching through observation and real experience in this way was to ensure that the children retained real and clear ideas instead of mere words and hazy notions, learning the right word for the right thing. This led to a subordination or elimination of book study, which had two important effects on the teaching of language in the Prussian elementary school. Firstly, the teacher now became an active instructor of groups of children instead of merely listening to

individual recitations. Secondly, children were now given training in oral expression, which had had practically no place in the schools before. This oral method assumed two extreme forms: the teacher either simply questioned the children about their experience and told them nothing, or he told them everything, his words being substituted for those of the text-book. With Pestalozzi himself oral instruction usually took the form of concert recitation, as illustrated in the above example, the children repeating after him a series of statements. This was perhaps the poorest form of oral instruction, as it involved neither useful knowledge in the teacher nor active thought by the children, but merely imitative shouting. Pestalozzi's own lessons thus often pursued the formal end to an unjustifiable extreme, but the formalism of his own practice does not detract from the soundness of the principles he laid down.

The main objective in oral observational teaching was to give children training in proper ways of speaking, leading to oral composition. Once more we can take an example from "Leonard and Gertrude" to see how Pestalozzi meant this to be achieved. In the book Gertrude displays no haste in teaching her children to read and write, but she endeavours to train them to speak at an early age. In the work she asks what use it is for a person to know how to read and write if he cannot speak, since reading and writing are only an artificial sort of speech. While there were many crudities in Pestalozzi's method of language training, this was developed to include the principles that a child should have clear ideas to be expressed, based on real experiences, that his vocabulary should be systematically enlarged in expressing these ideas, and that he should be

trained to keep in mind an increasing fund of ideas and express them in order. A description of a language lesson observed in a Prussian-Pestalozzian school involving a 6-8 year age group gives us some idea of the application of this method in practice: "For six months or a year, the children are taught to study things, to use their own powers of observation, and speak with readiness and accuracy, before books are put into their hands at all. A few specimens will make the nature and utility of this mode of teaching obvious. In a school in Berlin, a boy has assigned him for a lesson a description of the remarkable objects in certain directions from the school-house, which is situated in Little Cathedral street. He proceeds as follows: 'When I come out of the school-house into Little Cathedral street, and turn to the right, I soon pass on my left hand the Maria Place, the Gymnasium and the Anklem Gate. When I come out of Little Cathedral street...'".[2]

The tendencies to formalism in Pestalozzi's language teaching exerted almost as great an influence as his beneficial reforms. Amongst these tendencies was the teaching of words or symbols without giving the learner an appreciation of the real meanings they were intended to represent, the use of particular devices or exercises to carry out a certain educational principle without appreciating the real spirit of the principle, and establishing an almost inflexible routine in the teaching of lessons administered in a mechanical way. Pestalozzi himself realised the danger of degeneration into formalism and warned: "I know too well how it will be; this poor husk, which is but the mere outward form of my method, will appear to be its real substance to a great number of men who will endeavour to introduce this form into the narrow circle of their own ideas, and will

judge of the value of the method according to the effects it produces in this strange association. I cannot prevent the forms of my method from having the same fate as all other forms, which inevitably perish in the hands of men who are neither desirous nor capable of grasping their spirit".[3] Strangely, Pestalozzi recommended and carried out in his school the practice of having children memorize lists of words. Herbart and other visitors commented on this anomaly. These lists of nouns and adjectives were made up from the dictionary by the teacher and memorized by the children. Pestalozzi's defence of this was: "These lists of words are placed in the hands of the child, merely as exercises in learning to read, immediately after he has gone through his spelling-book; and experience has shown me that it is possible to make the children so thoroughly acquainted with these lists of words that they shall be able to repeat them from memory, merely in the time that is required to perfect them in reading; the gain of what at this age is so complete a knowledge of lists of names, so various and comprehensive, is immeasurable in facilitating the subsequent instruction of children".[4] This seemed to many of the educators of the time to be utterly inconsistent with the theory of basing instruction on sense perception that Pestalozzi so strongly emphasized.

There was another large group of formalized Pestalozzian practices which resulted from the extreme application of the principle that in the process of instruction the teacher should proceed from the simple to the complex. With Pestalozzi this principle was bound up with the desire to "mechanize" instruction. Describing his work in the second school in which he taught at Burgdorf in 1799, he said: "I once more began drying my ABC

from morning to night... I was indefatiguable in putting syllables together and arranging them in a graduated series; I did the same for numbers; I filled whole notebooks with them; I sought by every means to simplify the elements of reading and arithmetic, and by groping them psychologically, enable the children to pass easily and surely from the first step to the second, from the second to the third, and so on. The pupils no longer drew letters on their slates, but lines, curves, angles, and squares".[5] Shortly after this, when Pestalozzi was explaining his experiments to a visiting French-Swiss official, the latter remarked: "I see, you want to mechanize instruction". "He had hit the nail on the head", said Pestalozzi, "and supplied me with the very word I wanted to express my aim and the means I employed".[6] Later, in his "Swansong", Pestalozzi went on to elaborate this idea, saying that he wanted to "psychologise" instruction: "I now come to consider the idea of elementary education from the point of view of the means of instruction. From its very nature, it demands the general simplification of its means, which simplification was the starting-point of all the educational labours of my life. At first I desired nothing else, but merely sought to render the ordinary means of instruction for the people as simple as to permit of their being employed in every family. And so in every branch of popular knowledge or talent, I set to work to organise a graduated series of exercises, the starting-point of which was within everybody's comprehension, and the unbroken action of which, always exercising the child's powers without exhausting them, resulted in a continuous, easy and attractive progress, in which knowledge and the application of knowledge were always intimately connected". Closely connected with this practice of using a

minutely graduated series in each subject was the emphasis on the mastery of each step or element before proceeding to the next.

The influence of these principles in the teaching of reading was to fix and stereotype the synthetic method of beginning with long drills on the letters, and then proceeding to syllables, words, phrases, and sentences. The first step in this alphabet-syllable-spelling method of teaching reading was described by Pestalozzi as follows: "The spelling-book must contain the entire range of sounds of which the language consists, and portions of it should be repeated daily in every family... No-one imagines to what a degree the attention of infants is aroused by the repetition of such single sounds as 'ba, ba, ba, da, da, da, ma, ma, ma, la, la, la, etc.'"[8] The spelling-book provided for the teacher contained all the possible combinations of vowels and consonants for such drill. After these had been mastered, whole words were learned by spelling them. As had been the case in Salzmann's school, Pestalozzi provided large movable letters to be inserted in a frame by the teacher as a means of class instruction. Pestalozzi's attempt to solve the problem of the teaching of reading was never quite satisfactory to himself, but he never succeeded in improving on his purely syllabic method. Despite their imperfections, his methods of language teaching were largely copied in the Prussian elementary schools. A report on a lesson in a Prussian school employing these means describes how the children were drilled on the elementary sounds of letters and syllables till they were mastered, then they were prepared to begin reading: "The letters are printed in large form on square cards; the class stands up before a sort of rack, the teacher places one upon the rack... (and says), 'What letter is that?'

(The pupil answers), 'H'. He places another. 'What letter is that?' 'A'. 'I now move these two letters together, thus: HA. What sound do these letters signify?' 'Ha'. (And so on, adding a letter at a time, the teacher proceeded until he had formed 'hard', 'hard fist', 'hard fisted', 'hardfistedness'). In the next higher class the reading proceeded as follows according to the report: "The sentence is first gone through within the class, by distinctly spelling each word as it occurs; then by pronouncing each word distinctly without spelling it; a third timenby pronouncing the words and mentioning the punctuation points as they occur (and so on until the sentence is finally read with expression). Thus one thing is taken at a time, and pupils must become thorough in each as it occurs, before they proceed to the next".[10]

It became an object of educational controversy how far the native language was to be taught in the elementary schools in Prussia. One opinion held that it should not be extended beyond reading, writing, and some easy composition, but another maintained that a sound knowledge of the language is intimately connected with a knowledge of our own conceptions and feelings, and also with an acquaintance with external objects; that the language frequently indicates distinctions, founded in nature, but not obvious to careless observers; and that on account of these things nothing is more conducive to the cultigation of the minds of children than an accurate insight into the structure of their own language. In addition the advantages arising in grammar schools from the study of ancient languages were pointed out, and it was considered not improbable that similar advantages might be obtained by a study of the native language

alone, if properly conducted. Instruction in the mother tongue was thus usually divided into two different courses in the schools. In one the children were made acquainted with the internal structure of the language, with its laws and rules; in the other it was studied as the means of expressing conceptions in speech and in writing.

The best means of teaching children to read perhaps occupied educational reformers in the early nineteenth century in Germany the most. With the example of Pestalozzi before them, numerous experiments were tried. The main conclusion that one seemed to reach was that the quickest way was to teach reading and writing together. As a preparatory step, some Pestalozzian exercises were usually practised. Children were made to pronounce simple sounds and words to give more pliancy to the tongue in the manner that has already been described, and as in Pestalozzi's method, they had to draw lines in different directions to obtain steadiness in the hand. From this point reading and writing proceeded together so that they could alternately aid each other. In the process of learning to write, orthography was gradually attended to; and the same object was further pursued, as has been seen, by the analysis of many words which occurred in reading. Attention was then directed to reading; with the proper accent and emphasis, and calligraphy was united with the use of the most natural and proper expressions. These exercises were followed by compositions of various kinds, by attempts to attain propriety in reading poetry and songs, and lastly, by recounting tales and events and giving descriptions of natural objects. This was called the practical course of teaching the native language; many teachers thought it

sufficient, if they only added the most necessary and obvious rules of grammar and construction. Others thought it advantageous in the case of older, more advanced children to enter upon a theoretical course, giving an explanation of individual sounds and words, and treating more extensively the formation of different sentences and punctuation. To render this instruction less tiresome to children and to arrest their attention more effectively, the teacher would give it in continuation and conjunction with sense perception of objects, an acquaintance and knowledge of which the children obtained in what was called "Knowledge (or study) of the external world", and finally some exercises on the logical order of expressing conceptions were introduced.

Chapter Twenty-four - Geography in the Prussian-Pestalozzian Elementary School

No subject exhibited as clearly the influence of the Pestalozzian movement on actual practice in the elementary schools in Prussia as the development of the teaching of geography. Practically all the reforms in geography method can be traced back to Pestalozzi and his follower, Carl Ritter (1779-1859). From Yverdon in 1805 we have a good example of a sense-perception geography lesson, as described by a pupil: "The first elements of geography were taught us from the land itself. We were first taken to a narrow valley not far from Yverdon, where the river Buron runs. After taking a general view of the valley, we were made to examine the details, until we had obtained an exact and complete idea of it. We were then told to take some of the clay which lay in beds on one side of the valley, and fill the baskets which we had brought for the purpose. On our return to the castle, we took our places at the long tables, and reproduced in relief the valley we had just studied, each one doing the part that had been allotted to him. In the course of the next few days more walks and more explorations, each day on higher ground and each time with a further extension of our work. Only when our relief was finished were we shown the map, which by this means we did not see until we were in a position to understand it".[1] This idea of local geography, studied by project methods, was further developed by Ritter. Both he and Pestalozzi maintained that this subject should deal with the lives of the people, the country in which they live, and the resources from which they make their living. This came to be called "human geography".

Ritter himself was intimately identified with the general

educational movement of the time. He was, as has been mentioned, the first pupil at Salzmann's school at Schnepfenthal, where he spent eleven years as a pupil, from the age of six to seventeen. In order to prepare himself for teaching, he stayed on at the school for a further year as an assistant master and thus became thoroughly imbued with its methods. He was especially interested in geography even at this time; it has already been noted that instruction at the school included specially organized excursions for geographical and social study. Ritter remained in touch with Salzmann and the school all his life. In 1807, while travelling in Switzerland with two boys to whom he was tutor, Ritter spent a week at Yverdon. He was greatly attracted by Pestalozzi's personality and his efforts for education, and was thoroughly prepared by his training at Schnepfenthal to appreciate what he saw. In 1809 he repeated his visit and wrote to a friend expressing his profound appreciation of the influence of Pestalozzi's views and the geography lessons he had seen conducted by Tobler at Yverdon upon him. Shortly after this journey he set to work on a manual of physical geography, of which he wrote: "My first object in undertaking this work was to fulfil a promise made to Pestalozzi, that I would prepare a treatise, in his method, on geography..."[2] At other times too Ritter referred to the influence of Pestalozzi on him, particularly in a statement in which he said that he had learned to teach geography from Pestalozzi, although the latter knew no geography. In addition, when the first volume of his great life work, "The Science of the Earth in Relation to Nature and the History of Man", appeared in 1817, it was dedicated to Pestalozzi and to Guts Muths, his tutor at Schnepfenthal.

The principles of organization contained in Ritter's mammoth work, which eventually ran to 19 volumes with more than 20,000 pages, practically created the science of geography. It was his work to change the subject from the mere conglomeration of facts to a science containing the general principles of the relations of the influence of physiographic conditions on human activities and social development. The Pestalozzian element associated with Ritter's geography was the necessity and possibility of providing children with real, first-hand geographic experiences by beginning with home geography, instead of asking them to memorize long series of definitions and masses of political, commercial and statistical facts. Henning, Tobler's successor in geography teaching at Yverdon, elaborated these ideas in his work "Guide to Methodical Instruction in Geography", which became the forerunner of an ever-increasing number of books on what the Germans called "home geography".

In the elementary schools this kind of geography teaching also became part of what was called "knowledge of the world". Like every other branch of instruction influenced by Pestalozzi, this began with impressions on the senses. The child first had to acquire an idea of the objects constituting the world about him, before he could bring them into connection with one another. In summer the teacher took the children to the fields and directed their attention to every object that came before their eyes. The distances of the road were estimated, and then measured by paces; flowers were looked at and their individual parts examined, stones were picked up, butterflies, cockchafers, and worms were not allowed to escape scrutiny. The children's powers of observation were directed to the hills and valleys, rivulets and brooks, ponds and ditches,

gardens and meadows, fields and woods. Not the eye alone, but the ear too had to learn to discriminate, and every sound was followed up to discover its origin. The other senses were also exercised, especially in the examination of plants and flowers. This initial course varied in winter, when collections of natural objects, such as different kinds of wood, roots, seeds, mosses, stones, and so on were placed before the children, as well as various materials and metals.

After such a preparatory course of instruction, the teacher would begin the regular course, which consisted of aiding the children to acquire a correct idea of the place in which they lived, of its neighbourhood, the district in which it was situated, of the province to which it belonged, and lastly, of the kingdom. The place in which the children lived, the villages of their immediate neighbourhood, and one or two towns in the vicinity, these would for most of them constitute their world during the entire period of their lives. The school building was usually the first object to which the attention of the children was called. The school-room was first measured by paces and drawn on a small scale on paper; its fixtures were then added. The teacher then began to acquaint the children with the material of which the building consisted and of the tradesmen who had been employed in erecting it, showing them also the tools which they had used. Having impressed clear conceptions both of the whole of the building and all its parts on the minds of his pupils, the teacher would then pass on to the village or town. First a plan of the place was drawn, paying particular attention to the principal points, the inequalities of the surface, roads and paths, the division of the fields, the quality of the soil, the stones and rocks occurring in it. This was followed by

regarding the plants cultivated in the fields and gardens, and the animals which were reared by the villagers. The wild animals of the neighbourhood, the trees and shrubs found in the woods were not omitted. The teacher then led them to consider the inhabitants of the village or town, observing first the number of the population and the trades that were plied. Afterwards note was made of the political and religious institutions, and this part of the instruction usually concluded with an account of the most important historical events which had occurred in the area.

After this the view of the pupils was extended over the district in which the village or town was situated. The teacher would first of all draw the outlines of a large map of the district on a board, and the children were asked to copy it on a smaller scale. Then he inserted the rivers and the most prominent mountains, followed by the neighbouring villages, towns, and the roads connecting them with one another. In doing this, the teacher would point out where a road traversed a range of hills, and where it passed through a river, whether it was spanned by a bridge, ferry, or a ford. If some part of the district was distinguished by a peculiar branch of agriculture, its peculiarities were described. Places where minerals were found were also mentioned, and a short account of them and the manner in which they were extracted was given. Then he would enlarge on the industry of the towns, terminating perhaps with a description of the courts of justice and political institutions. In passing from the district to the province of which the district formed a part, the teacher would continue in the same order; but the information here was of a more general description, and still more so when he passed from their own province to other provinces in the kingdom. He concluded this course with a few notes on the statistics and higher political institutions of the whole kingdom.

If at the end of this course the pupils stayed on at school, the teacher would then pass on to other countries in Europe, and to other parts of the globe. In this instruction he would give only a general view of these countries, and only added details of a few remarkable objects, such as the description of plants distinguished by some particular qualities, strange animals such as alligators and elephants, or an account of some peculiar occupations among distant nations or some extraordinary phenomena of nature, such as volcanoes and earthquakes. This part of the instruction naturally varied according to the knowledge of the teacher himself and his selection of material.

With regard to this type of geography instruction, Harnisch declared himself of the opinion "that a teacher who imparts in this way the knowledge of their own country to his pupils with intelligence, has taught them things of much more importance than he who causes them to learn by heart the names of the capitals of all the kingdoms, and those of all their provinces, on the surface of the globe, and who speaks to them of the history of Greece and Rome, whilst their attention is never directed to the objects which surround them".[3] Ritter, in agreement with Pestalozzi, had indicated the possibilities of this approach even for mature students in the following statement: "Personal investigation must be made by every student in order to understand the results of the investigations of others. Wherever our home is, there lie all the materials which we need for the study of the entire globe... Whoever has wandered through the valleys and woods, and over the hills and mountains of his own state, will be the one capable of following Herodotus in his wanderings over the globe... The very first step in a knowledge of geography is to know thoroughly the district where we live".[4]

Chapter Twenty-five - Drawing, music, singing, religion, history and literature in the Prussian-Pestalozzian Elementary School

Applying the general principle of reducing each subject to its elements, Pestalozzi maintained that the elements of drawing as well as writing are lines and geometrical figures of various sorts, and that long drill in these elements as arranged in his "Alphabet of Form" should be the first step in instruction. We have already seen how writing was taught in connection with drawing according to the Pestalozzian method. Letters were analysed into straight, curved, and slanting lines, into acute and obtuse angles, and so on, and drill was given on these before proceeding to the writing of letters, words, and phrases. Pestalozzi was the first who made the attempt to bring drawing within the range of the elementary school. His practical success is beyond question and his psychological analysis of the problem was sound, but his desire to begin at the beginning and go forward on the principles of his elementary method established a procedure which remained standard for a long time in the elementary schools. Pestalozzi observed that nature gives the child no lines, it only offers him objects; lines had only to be given to him so that he might see objects correctly. The books of Schmid, von Türk, and Tobler on this subject only served still further to stiffen the formal, and to the child, often meaningless nature of the drawing lesson. Here again Pestalozzi's warning that it was the spirit of his work and not its outward form that was important went unheeded; the mechanism survived the spirit which gave it birth.

It remained for some time the object of controversy whether drawing should be taught in the Prussian elementary schools. Many rejected it on account of its uselessness in future life, but others thought that the inclination which nearly all children evince for drawing and making figures of wax or clay, should be seized for the cultivation of their minds. It was observed that besides cultivating their feeling for beauty and taste, this occupation accustomed them to cleanliness and order, two great qualities from a moral point of view. It was further stated that the knowledge of drawing was not useless, but of considerable value in various trades.

Where drawing became part of the elementary school curriculum, the first step consisted in putting before the children different forms, especially the regular geometrical bodies and the crystals of minerals, and then several good prints and pictures. If an opportunity arose, their attention was to be directed to pictures and statues in the church, to the form of the altar, the pulpit, the baptistry, and so on. In looking at the geometrical bodies, they had to be made to observe their planes, edges, and corners, and thus become more intimately acquainted with them. Instruction then began with the drawing of straight lines on a slate, first parallel to the upper and lower edge and the lateral edges, then with an inclination to the right and left; angles, triangles, quadrilateral figures and by degrees a circle were then drawn. In this way a certain facility of the hand and good judgement of the eye were acquired in a short time by means of this preliminary course.

The regular instruction built on this foundation. The teacher would order the children to arrange straight and curved lines with one

another in different groups. They would, for example, fill up the inner space of a circle or quadrangular figure with straight or curved lines in a certain direction, or with both together. These lines could also be drawn with light or heavy pressure, so that the children could begin to form an idea of visual beauty through the contrast of strength and gentleness. The powers of innovation in the child could be greatly excited by exercises of this kind, guided by the teacher, who could from time to time show his pupils drawings in which lines were so combined as to make an agreeable impression on the mind. Those children who displayed a lack of inventive power could be allowed to copy the others.

In the next stage of this course, the teacher would show the pupils prints or lithographs, woodcuts, or pictures as examples, and would accompany this with an explanation, so that the children might understand the true object of a drawing and realise the difficulties. The children were then asked to copy a drawing, the teacher carefully leading them from the more easy to the more difficult, avoiding in the beginning all kinds of perspective representation. The children's efforts at copying were sometimes on a smaller, sometimes on a larger scale than the drawing or picture they had before them. In the town schools architectural drawing was also practised to a great extent. The third kind of drawing exercise consisted of drawing actual objects. The children once more began with regular bodies, such as cubes, columns, and so on. Afterwards these were mixed together, to bring them into a perspective view. Other objects were then added, especially common objects within the children's experience - flowers, different kinds of tools, simple machines. These three kinds of exercises were not strictly separated; the most difficult kinds of

drawing, including heads and landscapes, were excluded from drawing lessons in the main in the elementary schools.

The systematization of instruction in music and singing began under the auspices of Pestalozzi. The work of his assistants, Pfeiffer and Naegeli, aimed at enabling children at the elementary stage of learning to sing from notes, and they applied the Pestalozzian method somewhat rigidly to the solution of this problem. Natorp improved on it in his "Guide to Instruction in Music for Elementary School Teachers", which was published in 1813, by introducing songs at a certain stage. Singing had been introduced into all the schools of Germany at the time of the Reformation, because it constituted an essential part of divine service. In the eighteenth century, however, it had been largely neglected, but was re-established by Pestalozzi and his followers. The preparatory course in most elementary schools consisted of some exercises for the ear. The smaller children listened to the older pupils or the teacher singing short songs which were then repeated by them. As soon as they had learnt to sing several songs, exercises in keeping time and in distinguishing notes were practised; knowledge of written music was gradually added. As they became capable of comprehending the rising and falling of the scale in written music, the song upon which they were next to be exercised was written on the board, so that they might become accustomed to singing from music. Instruction in music was usually extended no further than this; the most important songs were generally learnt by heart with no preliminary instruction, because it was felt that they would be sung with more feeling when prompted by memory. Every child also possessed a song-book in which the words of all the songs he had learned to sing were entered.

At Burgdorf and Yverdon Pestalozzi himself usually gave moral or religious instruction, sometimes this duty was handed over to an assistant. This teaching was mostly confined to moral tales from the Bible or from personal experience. The religious instruction given in Prussia was of a similar nature. However, religious education, despite its inclusion in the curriculum as a result of the demand for an increased number of branches of knowledge in the elementary school, was usually limited to a couple of hours a week. The lessons comprised of Bible study, and still included to a large extent learning the catechism with emphasis on the special dogmas of individual creeds (Catholic or Lutheran), as well as the learning of hymns. The denominational teaching was given by the local preacher in separate classes.

History and literature were subjects which Pestalozzi largely neglected, but in Prussia the arousal of national enthusiasm and patriotism led to an emphasis on the knowledge of the native land, which included "home history" as well as "home geography". History of this local nature was taught by lecture or narrative, the teacher developing at the same time an outline of important facts on the blackboard. Although this kind of history instruction found a place in many of the larger town schools, it must be noted that in most rural elementary schools the teaching of history was incidental to the reading lessons. Two of the most prominent history texts, published in 1813, contained merely the history of kings and battles. Later, under the influence of the Herbartian movement, far greater use came to be made of historical and literary materials, which were expounded by practically all the modern methods of teaching history, including Pestalozzian methods. With regard to literature, as early as 1779 there

had begun to appear a special literature for children, created by Heinrich Campe (1746-1818), an intimate follower of Basedow. Inspired by Rousseau's advocacy of "Robinson Crusoe", which Rousseau considered as the only book fit for children to study, he had started to publish "The Campe Children's Library". The best known of these books was a revised translation of Defoe's work. In discussing the use of Campe's stories for moral instruction in 1806, Herbart said: "The Campe Children's Library alone can supply many valuable contributions for a future choice selection". Campe's "Library" contained fables, moral tales, stories of ancient and modern times, and accounts of foreign countries and peoples. It was the forerunner of many similar works which were used in the Prussian schools.

Under the influence of the Pestalozzian movement the basic number of subjects in the elementary school curriculum was increased to include at least all the subjects discussed; at the same time the subjects which had constituted the old basic curriculum were extended and pursued on Pestalozzian lines. This general improvement in elementary education was effected with the aid of teachers schooled in the Pestalozzian disciplines, many of whom had by this time been properly trained for the business in the new teacher training institutes established for the purpose. However, it must be borne in mind that not all these branches of instruction were pursued to the same extent in every elementary school in Prussia. The increased curriculum was strongly insisted upon in most of the town schools, for in these the schoolhouse was usually large enough to afford three school-rooms and three different teachers. This was the number of rooms and teachers required to carry the whole plan of the curriculum to its termination. In many of the rural schools, despite the reforms carried

out, these facilities were often lacking and the classes often overcrowded, one teacher sometimes having a hundred or more pupils under his care. It was not yet thought expedient by the government to determine by law the number of children which was to compose a class and to be taught by one teacher; such a law would have obliged the local school communities to erect numerous extra school-houses and to provide for the maintenance of many additional teachers. Such demands on the public purse could not be met in full at this time of national emergency, but every effort was made to gradually reduce the numbers in the rural schools under the supervision of one teacher to about fifty or sixty.

Chapter Twenty-six - Reaction

On the 28th February, 1813, the treaty of Kalisch had brought Prussia into a state of war with Napoleon once more. Patriotic fervour had been so instilled into the Prussian people that they showed themselves ready to make any sacrifice to free their country from the invader after so many years of occupation. The king's appeal to the people[1] on the 17th March, 1813, was answered by a massive rallying to the flag. When Napoleon entered Saxony for the second time in October, 1813, he was completely defeated in a three-day battle at Leipzig by the combined forces of Prussians, Austrians and Russians. His subsequent attempt at recovery in March, 1815, was defeated at the battle of Waterloo on the 18th June, 1815.

During the hundred days before Waterloo the king, frightened by the course of events, promised his people a constitution and a popular assembly. Times changed, however. This pledge was forfeited after Napoleon was interned, and gradually not a further development but a regressive movement became noticeable; a period of reaction began to set in which affected education especially and virtually brought to a halt the advance of the true spirit of Pestalozzianism in Prussia. The success of the new schools was retarded by the opposition of officials, the clergy, and the land-owners, who had the legal privilege of selecting the teachers for the schools on their estates. It was the aristocracy above all who did not share the new views and were afraid of the threat to their position of privilege.

Fortunately, by the setting up of an independent Ministry of Public Instruction and Ecclesiastical Affairs on the 3rd November, 1817,

under the direction of Baron von Altenstein, reaction in the sphere of education was kept at bay for a little time and the improvement of elementary education continued: new places were established, teachers' incomes were raised, a further expansion of teacher training was undertaken. In 1819 the Prussian Law of Public Instruction was promulgated, whereby education was now regarded as the definite central concern of the state with the Church as an integral partner with fluctuating influence in law in the conduct of education. One of the provisions of the law was the enforcement of the duty of parents to send their children to school.

Reaction, however, could not be held back for long. Pestalozzi's influence upon the administrators of education in Prussia had been a liberal and humanistic one. Education had been approached on a liberal basis, in the elementary schools much experimentation on Pestalozzian lines had been allowed, and students at teacher training institutes as well as the universities had been permitted to form associations. In 1815 a national association of students, the "Burschenschaft", had been founded. Its watchwords were: "Honour, Liberty, and Fatherland". In 1819, however, a student was responsible for the death of Kotzebue, the dramatist and journalist, who held government office. The authorities seized the opportunity to suppress all student associations and all liberal movements. Teachers charged with liberalism or socialism were thrown into prison. One of the victims was Jahn. This wave of reaction led eventually to the early enforced retirement of many liberal-minded educational reformers, amongst them Harnisch and Diesterweg. Some of the progressive ideas entertained by such men were considered far too revolutionary for

reactionary officialdom. The tendency to expand the curriculum in the elementary schools, which had paralleled the expansion of social life in the earlier years of the century, received various checks from this time on. This opposition was largely due to the fears on the part of government circles of the democratic and rationalistic tendencies which they attributed to the broader-based elementary school system. By the Carlsbad Decrees of 1819 even the teaching freedom of the universities was limited.

There was an especially sharp response when in 1819 Süvern proposed an educational law that outlined a ladder system which would have opened the way to even those on the lowest social level to pass through the elementary schools to the grammar schools and into the universities. It had been realized in more liberal times that it would be necessary to organically incorporate the school system into state life by a comprehensive school law rather than by individual enactments. The task of drafting such a law had been given to a committee under Süvern by a Cabinet Order of the 3rd November, 1817. The draft of their recommendations, comprising 119 paragraphs, was ready on the 27th June, 1819. In the meantime, however, the king had become more cautious, for the state was now secure and he wanted to give the spirit of the age a breathing space in which to settle, to gather itself together, and become more clarified. Everything was therefore to be carried into effect with caution and moderation from now on; with regard to the educational ferment which had been brought into the realm of elementary instruction at Pestalozzi's instigation, this too was to be guided into calmer paths. Von Altenstein had to respect the king's will in this regard and was compelled to advise

his councillors accordingly, especially as the orthodox movement had already gained great influence by this time and was already counteracting the more liberal efforts made by himself and Süvern. Added to this was the fact that the Minister of Finance had no desire to incur further expenses in the state budget for the elementary school system, which he did not hold in high regard.

Under these circumstances it was difficult to create an educational law which corresponded to the spirit of the age in the people, the demands of Pestalozzian educators, and the views of the king and aristocracy. The plan submitted by Süvern would have changed the character of Prussian education and would have meant the culmination of the Pestalozzian influence on the education of the masses. Von Altenstein, however, having himself grown understandably cautious because of the change which had become apparent in the views of the ruling circles towards the liberal development in the country, referred the draft to the highest civil officials and bishops for appraisal and comment. Such a scheme might have received serious consideration a decade earlier when the government had been in desperate straits, but it had little chance after this danger had passed and the ruling classes could breathe freely again. In the interest of the state, of Christianity, and the whole moral order of the world, the authorities stated that nothing could be done to put Süvern's plan into operation.

In disillusionment Süvern gave up his position and died soon after. In his place Beckedorf took over the direction of the elementary education system under von Altenstein. Beckedorf possessed little of the Pestalozzian spirit, he did not understand Pestalozzi and said of him:

"It is true, that he did not follow the true path, but who would maintain that he was completely in the wrong?"[2] There were no longer the words of a Nicolovius or a Süvern. The Church and the state now came closer together in controlling the life of the individual. The government, which had previously favoured the Pestalozzian method amongst the teachers and had formally cultivated it, let it be known that it felt a certain misgiving about instructive methods which were too open, too liberal, it exhorted the Pestalozzians to exercise restraint and moderation. There was talk about the harmful effect of an excessive educational provision for the lower classes, of a need to slow down the precipitation for the development of elementary education. In contrast to earlier days, there was even mention of the "limited understanding of the lower classes".[3] The king now desired an education which was religious, moral and practical for those classes suited to "the situation in which a man is born, to the circumstances in which he finds himself, to the talents and capabilities which are bestowed upon him, according to the inclinations by which he chooses a certain profession".[4] He expressed his fears about an education which went beyond the bounds of class and occupation, because it would awaken pretensions and wants which could not be satisfied, and would thus lead to discontent. Such views of the king and the similar disposition of the controlling authorities served as the basis for the reactionary efforts which came to have more and more sway in the sphere of education. The Pestalozzian view that the individual is centrally important and the state's provision of education for the individual's development benign was abandoned. The individual, according to the new terms, was to serve

the state; his education was to be strictly controlled to his needs and position in life.

As long as von Altenstein remained as the Minister responsible for education and Nivolovius stood by his side, Pestalozzian idealism could not be totally suppressed by the counter movement. Under Minister Eichhorn and Councillor Eilers, however, the danger grew, and when Privy Councillor Stiehl received the direction of the elementary school system under the Ministers von Raumer and von Mühler successively, the overthrow and death of all idealism was certain. Under this "father of regulations", efficiency and direction became the watchwords. The government began to establish strict control over the training of all elementary school teachers. A Cabinet Order of 1822 alluded to the fact that teachers were to be prepared no further than was necessary for teaching in a single-class elementary school. No form of pedagogy was to be included in their training course, only the necessary teaching material given and the method of presenting this information to their pupils, who were to be educated to be good, obedient, Christian patriots. Important Pestalozzian educators were no longer appointed to high positions in education. The Pestalozzian influence was confined more and more to the internal organization of school instruction; an enlightenment harmful to authority was feared from his elementary school method. This authoritarian attitude was in complete contrast with the Pestalozzian spirit of benovolent, paternal interest in the development of the individual which had animated all the leaders of the country at the beginning of the century. Pestalozzi's direct influence was at an end in Prussia.

CONCLUSION

From 1500 to 1800 the elementary school in Prussia had changed very little. Its curriculum was narrow, its equipment meagre, its teachers poorly prepared, and its methods wasteful. By the beginning of the nineteenth century Pestalozzi had become the prophet of a new education, the inspiring personality of a movement of great significance in the history of culture in general and in the history of Prussian culture in particular. In the early years of the century the connection of the original educational undertaking of Pestalozzi with the beginnings of educational reform in Prussia was made the work of individual Prussian educators, writers and administrators. Although the movement for the improvement of the Prussian elementary schools was independent of Pestalozzi in its origin, the climate of desire for national regeneration through education after the humiliation of defeat prepared the ground ideally for the adoption of Pestalozzi's methods at government level. The influence exerted by his educational writings, by his schools and the teachers trained in these became the largest factor in the changing of elementary school practice in Prussia in the early nineteenth century. His educational experimentation had developed oral and objective methods in the teaching of home geography and elementary arithmetic, and synthetic methods of teaching reading, writing, and drawing, which became dominant in the elementary schools in Prussia. The influence of Pestalozzi on Prussian schools was summarised by Diesterweg in the following words: "By these men and these means, men trained in the Institution at Yverdon under Pestalozzi, the study of his publications, and the application of his methods in the model and normal schools of Prussia after 1808, was

the present Prussian or rather Prussian-Pestalozzian school system established, for he is entitled to at least half the fame of the German popular schools".[1]

Times changed. Once the yoke of foreign oppression had been cast off in Prussia, the need for liberal reforms to unify the people in spirit in time of danger was over. The old order began to re-establish itself, those in authority who had been content to relinquish some of their power in time of national need, reclaimed and asserted it to the full once more. Fear of revolution through reform spurred them on to impose new restrictions. In education a "policy of regulations" stifled the freedom of the teachers and destroyed all possibility of further educational growth; the individual was to be subservient to the state in all things. Pestalozzi himself had recognized the dangers of centralized control in education. In 1814 he had written a long article addressed "To the Innocent, the Serious-minded, and the Magnanimous of my Fatherland", which was a testimony to his ceaseless solicitude for the people whom his school and his education could not yet touch. He asserted that the foundations of national welfare were everywhere alike and that salvation lay only in the education of all the children of all the people; he added, however, that children belong to their parents and not to the state. He stated his objection to purely central control, which by making schools mere cogs in the wheel of a great machine, destroyed their individuality and cut off their essential connection with the home life of children. The code-bound schools and code-bound teachers of Prussia in the 1820's could no longer represent the Pestalozzian ideal.

The repression of liberalism and reform in this period of Prussian

educational history did not mean, however, that Pestalozzi's idealism and the traditions of a great time were destroyed for ever. One can kill the body and break down the shell, but the spirit does not let itself be eliminated so easily. An idea as active as the Pestalozzian one, once it has entered the cultural development of humanity, never allows itself to be completely effaced; it has been resurgent time after time in one form or another up to the present day.

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3 Scherer: "Die Postalozzische Pädagogik", p. 241.

4 Ibid., p. 242.

CONCLUSION

1 H. Barnard: "Pestalozzi and his Educational System", C. W. Bardeen, Syracuse, p. 147, (n.d.).

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