A TEXT-BOOK

IN THE

HISTORY OF EDUCATION

BY

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Chronological Table of Educational Development during the Seventeenth and Eighteenth Centuries

Political Events and Personages	Literary Men, Religious Leaders, etc.	Scientists, Philosophers, etc.	Educational Writings and Educators	Educational Events
1600.	Bunyan 1628-1688	Galileo 1564-1642	Ratich . 1571-1635	1619. First Natural Science Association (Rostock).
1618-1648. Thirty Years' War.	George Fox 1624-1691	Hugo Grotius 1583-1645	Comenius 1592 1671	1619. First comp. ed. (Weimar).
1620. Plymouth settled.	Spener (Pietist) 1637-1702	Bacon 1561-1626	Comenius's *Great Didactic* . 1630	1633. First el. school in America (N. Y.).
1648. Peace of Westphalia.	1673. Test Act, Eng.	Harvey 1578 1657	Comenius's *Orbis Pictus* . . 1657	1635. Boston Latin. Grammar School.
1649. Charles I beheaded.	1685. Edict of Nantes revoked.	Hobbes 1588-1679	Milton's *Tractate* . 1644	1636. Harvard founded.
1660. Restoration.	1695. Toleration Act, Eng.	Des Cartes 1596-1650	Fenelon's *Ed. of Girls* . . 1687	1642. School reforms of Gotha.
Louis XIV 1643-1715	Corneille 1606-1684	Boyle 1627-1691	Lasalle's *Institutes*, 1684	1643. Port Royal "Little Schools."
1679. Habeas Corpus Act.	La Fontaine 1621-1685		Locke's *Thoughts* . 1693	1647. Comp. School law in Mass.
1688 English Revolution.	Racine 1639-1699			1693. William and Mary founded.
				1694. First modern university. (Halle founded.)
				1697. Teachers' seminary at Halle.
				1699. Soc. for Prom. of Chris. Knowl. founded.
1700.	Fenelon 1651-1715	Newton 1642-1727	Francke, 1663-1727	1700. Yale College founded.
1713. Peace of Utrecht.	Montesquieu 1689-1755	Leibnitz 1646-1716	Rollin . 1661-1741	1704. First American newspaper.
Queen Anne 1702-1714	Voltaire 1694-1778	Halley 1656-1742	Julius Hecker 1707-1768	1709. First daily newspaper.
Frederick William of Prussia 1713-1740	Pope 1688-1744	Buffon 1707-1788	Rousseau 1712-1778	1724. Compulsory education of both sexes in Saxony.
Frederick the Great 1740-1786	Richardson 1689-1761	Linnæus 1707 1778	Rousseau's *Emile* . . 1762	1746. Princeton founded.
1756-1763. Seven Years' War.	De Foe 1661-1731	Franklin 1706-1790	Johann Basedow 1723-1790	1747. First *real schule* (in Berlin).
1757. British East India Empire founded.	Addison 1672-1719	Hume 1711-1776	Salzmann 1744-1811	1748. First *Lehrerseminar* founded.
1772 Partition of Poland.	Fielding 1707-1757	Watt 1736-1819	Campe . 1746-1818	1751. Academy of Philadelphia founded.
1759-1773 to 1814. Jesuit Order suppressed.	Gray 1716 1771	Lavosier 1743-1794	Pestalozzi 1746-1827	1754. Kings' (now Columbia) College founded.
1775-1783. American Revolution.	Jonathan Edwards 1703-1758	Priestley 1733-1804	Pestalozzi's *Leonard and Gertrude* . 1781	1764. Expulsion of Jesuits from France.
1789. First President inaugurated.	John Wesley 1703-1791	Adam Smith 1723-1790	Knox, *Liberal Education* 1781	1763. Special training required of all German teachers.
1789. States General.	Diderot 1713-1784	Lamarck 1744-1829	Edgeworth, *Practical Education* 1798	1763. Founding of present system of Prussian schools.
Louis XVI 1774-1792	Helvétius 1715-1771	Werner 1750-1817	Jean Paul Richter 1763-1825	1774-1793. Basedow's *Philanthropinum.*
1799. Bonaparte overthrows Directory.	Condillac 1715-1780	Kant 1724-1804	Frederick Augustus Wolf 1759-1824	1783. Sunday-schools founded.
	Burns 1759-1796	Herschel 1738-1832	Bell's *Experiment in Education*, 1798	1784 University of State of New York.
1800.	Schiller 1759-1805	Schleiermacher 1768-1834	Lancaster's *Monitorial System* . 1798	1785. Land endowments for public schools in United States.
		Fichte 1762-1814	Andrew Bell 1753-1832	1785. Webster's *Speller.*
		Laplace 1749-1827	Joseph Lancaster 1778-1838	1794. All Prussian teachers declared State officials.
		Humboldt 1767-1835	Noah Webster 1758 1843	1793. Decree of Rev. Convention on education.
				1794. National Normal School in France.
				1795. Primary education established in France.
				1795. Lindley Murray's English grammar.
				1798. Monitorial System established.

CHAPTER X

THE NATURALISTIC TENDENCY IN EDUCATION: ROUSSEAU

RELATION TO PREVIOUS MOVEMENTS AND TO THE TIMES. — In order to understand the origin of the naturalistic movement in educational thought and practice, one must return to the various phases of the realistic movement in the seventeenth and early eighteenth centuries; for out of these grew two movements which explain the formalism of the eighteenth century against which naturalism arose as a protest. The first of these was the orthodox religious formalism; the second was the rationalistic formalism of *The Enlightenment.*

On the one hand is found the formalism in religious thought and life growing out of pietism in Germany, Jansenism in France, and Puritanism in England. Originating as protests against earlier religious formalism, each of these religious movements degenerated during the early eighteenth century into another type of religious formalism. That against which they rebelled had been a formalism of observance. Puritanism and pietism were returns to the early Reformation emphasis on faith, to the simplicity of a non-ritualistic worship, and the earnestness of an intensely devotional life, which found expression in the conduct of everyday life. Jansenism was an emphasis on faith and an opposition to the ceremonial expression of religious feeling that was in strong contrast to the characteristic beliefs and practices of the Roman Catholic Church in general. These reform

tendencies had degenerated into a type of life that posited ideals impossible of actual realization by the masses of the people or even by the majority of their devotees; ideals which made the simplest amusements and pleasures heinous sins; and which, consequently, perpetuated, even if they did not develop, a piety that on the part of many became affectation and hypocrisy, and on the part of others became fanaticism and a menace. The heinousness of bell ringing and ball playing to John Bunyan furnishes an example of this extreme pietism; but the reaction as seen in the depth and sincerity of Bunyan's religious experience was radically different from the prevailing spirit of a generation or so later. A tone of cant was introduced into literature and social intercourse, and underneath this a frivolity and licentiousness was introduced into the life of the times. There occurred a notable hiatus between profession and action, between faith formally accepted and life actually lived. The resulting hypocrisy was despised by those who, either through weakness of character or through social situation, were compelled to conform, and by those who honestly believed in the impotency of such rigid ideals of conduct and who had greater faith in the genuineness of human nature and the permissibility of the relaxation and pleasures which it craved.

The dominant formalism in France was of a somewhat different type. Here the Church retained all its former power, and exerted a most oppressive influence over thought and action. The reigning monarchs made amends for their licentiousness by persecution and inquisitorial torturing of those who dared question the authority of the Church, and purchased a similar indulgence for their aristocracy by a most intense loyalty to formal orthodoxy. "Ceremonial display and outward magnificence merely veiled moral meanness and inward depravity; punctilious attention to the rites of the Church, and a blind or feigned orthodoxy, only favored the spread of hypocrisy and of a secret and cynical skepticism."

This is the summary drawn by Flint. France had been during the seventeenth century the first nation of the world, and during the seventeenth and early eighteenth centuries had passed through a period comparable to the Periclean or Augustan ages of ancient civilizations. Victorious in war, France had spread abroad her power into other continents and possessed a court more brilliant than any in modern times. The French state was the model of absolutism; French aristocracy had become possessed of all power and wealth. The French language was the language of the courts of Europe and of international communication; French literature had reached a beauty of form not then attained by any other modern language; French manners had attained a refinement and French society a perfection in form and in attractiveness that caused them to be imitated throughout Europe as the highest product of civilization. But the brilliancy of Paris had been purchased at the expense of the provinces; the power of the king had been bought with the slavery of his people; his success in war with the impoverishment of the country; the extravagance of aristocratic society with the sordid lives of the common people. The supremacy of the orthodox Church had been brought about by the suppression of all right of individual judgment; the support of the nobility for the Church and State had been secured by unjust privileges and corrupt lives. In England similar pretentious piety and orthodoxy could exist alongside of laws that enumerated one hundred and sixty-four offenses punishable by death. Nor were these mere statutory forms, for there were many executions for most trivial offenses. Upon the Continent the Inquisition was even yet in operation. In Spain, in 1723, the daughter of the regent of France was treated to the public spectacle of the burning alive of nine heretics as a part of her marriage festivities. France yet forbade the burial of the bodies of heretics in any cemetery; and, in the centers more remote from the "enlightenment"

of the capital, scoffing heretics yet had their tongues torn out. It is true that it was only the books of Rousseau that were burned by public hangmen, but two generations earlier it would have been the author instead of his writings.

The picture has been painted many times, but it takes a large canvas for the details. Sufficient to say, that there prevailed an absolutism in politics, in religion, in thought, and in action that could continue only so long as great ability was found in the rulers and so long as no one arose to lead the masses in revolt. The first revolt was that of the intellect against repression; the second was that of the masses for the rights of the common man. On the thought side these two movements had much in common and are often included together. Yet, in certain fundamental things, like formalism and aristocracy, there was a radical divergence between them. This divergence gave to the naturalistic movement its chief features, and differentiates the latter half of the eighteenth century from the first half.

However, it must be noted, that the two movements cannot be sharply differentiated, and that they are often included together under the term here restricted in its application to the first period alone. Such a use necessitates an odd grouping of men. The quiet, timid, even pious Locke, who may be said to have begun the movement, the satirical Voltaire and Swift, the formalistic Pope and Chesterfield, the emotionalistic Rousseau and Wordsworth, the anarchistic Danton and Robespierre — all participated. Thus in some respects the greatest diversity of ideas as well as of methods are represented. The latter part of the eighteenth century marks the complete break from the old system of thought and of social order, and the origin of the new systems of thought and of instruction which we call modern. But it was the entire thought-movement of the century which produced this. Therefore it is necessary to note the characteristics of both phases in order to understand the social and

intellectual development of the century; but it is the latter phase, the naturalistic tendency, which is of peculiar interest to us, on account of its influence in the shaping of educational thought.

THE ILLUMINATION, OR THE ENLIGHTENMENT, is the term given to this movement of the early eighteenth century, though frequently it is used to include the latter part of the century as well. The latter movement — the naturalistic one — was made possible by the earlier one, — the Enlightenment, — and includes some features common to it. The term *illuminati* possesses greater definiteness and is applied to the group of philosophers, theological writers and "freethinkers" and literary writers of Germany and France in the early part of the century.

This new movement, though it was a most notable step in the development of human freedom, was in its outcome but a new type of formalism, — the second spoken of as resulting from reaction to the earlier realistic movement. This eighteenth-century formalism was materialistic as the former had been pietistic; skeptical and rationalistic as the former had been religious and devotional — or at least ceremonial; aristocratic as that had been democratic. Holding that morality consisted in the observance of form and the preservation of proper outward appearance, it permitted the grossest immorality, as is evidenced by the literature of the times. Rejecting the practices of Puritanism and pietism as hypocrisy and revealed religion as superstition, it became openly atheistic or skeptical, and as with Hume and Gibbon in England and Voltaire and the encyclopedists in France, interpreted life from that position. In its origin it was a reaction against the existing formalism in thought and in belief, and against the absolutism of the Church.

At bottom a protest against antiquated and arbitrary systems of thought and of society, the Enlightenment rebelled

against hierarchy and despotism in Church, State, and society; against superstition and ignorance in thought; against hypocrisy in morals; — though often, as the price of freedom, with the resultant extreme of anarchism in social order, atheism and skepticism in thought, and license in morals. Establishing as its fundamental principle a complete reliance upon human understanding and reason, it opposed all ancient abuses and along with these all forms of tyranny, whether in thought, in government, or in morals. Finally, it attacked the very foundations of all the institutions through which such authority was exercised, thus destroying or eliminating for the time being much that was woven into the very texture of a stable society and is ever essential to it. Through human reason alone was any true estimate of life now to be formulated and human happiness attained.

The aim of the Enlightenment was to liberate the mind from the dominance of supernatural terrorism; to establish the moral personality of the individual independent of ecclesiastical and social forms; to demonstrate the intellectual freedom and sufficiency of man; to destroy the terrorisms over the feelings, the absolutism over thought, the tyranny over action, exercised especially by the Church, and, as supplementing the Church, the monarchy. The Enlightenment posited a supreme faith in the reason of the individual, in justice in the state, in toleration in religious beliefs, in liberty in political action, and in the rights of man. The entire period was controlled by a profound belief in the prerogative of the individual, his right to individual judgment, and to the determination of every question uninfluenced by the beliefs and superstitions of the Church and the traditions of society. Freedom of thought, liberty of conscience, sufficiency of reason for the conduct of life, were thus the watchwords and the keys of interpretation of this eighteenth-century movement.

There were various phases to this new movement now to be briefly stated. Most fundamental among these was the

philosophical phase. In this respect the movement began in England with Locke, who stated the questions to be solved and indicated the source of the answers. Rejecting the older speculative philosophies, he sought the actual source of knowledge, the degree of its validity, and the extent to which human insight reached. All these questions were to be settled by investigation. The philosopher's rule was later formulated into the poet's dictum, "The proper study of mankind is man." They held that all ideas arise from experience; that there are none innate. Sensation to them was the primary source of all knowledge; though reflection was a secondary source. Philosophy delineated the secular view of life, individualism was emphasized, the reason exalted. Sole reliance was to be placed in the human understanding.

If philosophy furnished the fundamental element in the Enlightenment, the religious phase was certainly the most prominent. While Locke wrote in defense of religion, this did not prevent his philosophy from becoming the basis of all attacks upon it. The emphasis on reason was so prominent that the term "rationalism," in its narrower technical meaning, yet indicates that particular movement which opposed both the belief in the supernatural religion of the Church and in the naturalistic religion of the succeeding period. To the rationalists the human understanding was the final test of religious truth. Rationalism rejected revelation either as false or, since merely confirmatory in its main points to the teachings already given by reason, as unnecessary. The orthodoxy of the times, previously mentioned as productive of the pietistic movement and as responsible for the formalism in education, prepared the way for rationalism through its own emphasis upon the importance of logical statement and through its neglect of the spirit of religion.

But to the French philosophers and writers this religious phase of the movement took upon itself a more practical character. There it was not only the formalism of belief, but

the formalism of life and of ceremonial that was objected to; not only the superstition in thought, but the immorality and heartlessness in action that was striven against; not only the harshness of orthodoxy, but the violence and the tyranny, the persecution and the terrorism produced in suppressing all difference in opinion, that called forth the opposition of these men to the one great force, that, as they believed, opposed the exercise of individual judgment, the use of reason, the development of intelligence, and the progress of society. Against the Church, then, they concentrated all their efforts. Voltaire (1694–1788) devoted his long life, productive of literary works numbering among the hundreds, to the overthrow of "The Infamous," as the Church was termed. As Louis XIV remarked, "I am the state," Voltaire, it is said, might well repeat, "I am the century." Voltaire and his co-workers identified the obscurantist ecclesiasticism of the times with Christianity, Christianity with religion, and boldly argued that all religion was an evil, an impediment to progress, a tyrant over reason, and that the Church was the great curse of the times, — was "The Infamy." Judged from the point of view of those attacked, it has usually seemed that the aim of Voltaire and his followers was merely negative and destructive. Yet he chiefly attacked narrow dogmatism, persecution, inhumanity, special privileges, which were in those times all summed up in the Church, and aimed to make them hated by all. His positive aim was to free human thought from the superstition and bondage of tradition, to establish the right of individual judgment, to further the enlightenment of the people and the exaltation of reason. If reason is to be the guide to life and the test of all custom and institutional life, it is necessary to free it from prejudice and superstition. Since, as the *illuminati* held, these are rooted in religion, fostered and preserved by the Church, it is necessary to overthrow the Church and to substitute a religion of reason or of nature. To this modified belief in a natural religion, Voltaire came in the later part of his life.

That phase of the movement which was directed to the organization and life of society was characterized by the dominance of the same unbounded faith in reason. Consequently the monastic custom, the celibate life of the clergy, the ceremonials, and the repressive tyranny of the Church called forth the bitterest attacks because of their "unreasonableness," rather than because of their hollowness and the lack of conformity of ideal with practice. Thus the same standard controlled in regard to social and especially political organization as did in the attitude toward religion. Even in France, the idea of natural rights, of equality before the law, of individual choice as the source of sovereignty, and many of those ideas that became of such tremendous practical importance in the latter part of the century had been often suggested and elaborated. Now commended by reason, they acquired a new vitality, a new meaning.

Another effect of this exaltation of reason deserves notice. Voltaire and his co-workers of the early half of the century were no less aristocrats than those aristocrats of privilege whom they opposed. Whether they expressed it in so many words or not, they held that the lower classes were not amenable to reason, that they were incapable of being educated, that they were but little above the savages, and consequently that for them religion had a legitimate function.

The thought-movement of the early part of the century was aristocratic, because it was rationalistic. It aimed to secure the culture of the few, the overthrow of narrow traditionalism and dogmatism in the lives of those who controlled society and the control of reason among the educated class. It would substitute a new aristocracy of intelligence and wealth for the old aristocracy of family, of position, of the Church. It possessed a cleverness, a wit, a brilliancy that contrasted with the narrowness and dullness of the old; but it was for

the chosen few and had no regard for the masses sunk in degradation and overwhelmed by wrongs and tyranny. While the *illuminati* opposed tyranny and oppression in human thought, they but aspired to profit by participation in the social and political privileges of the few. There was a selfishness and inconsistency about it all that but made more glaring the injustice to the many who must support the privileges of the few.

The intellectualism, the aristocratic tendency of the earlier movement, had developed into a formalism — a formalism of skepticism, of selfish indifference, of polished social intercourse, of stilted forms of an artificial society — that was rational enough to be sure, but that, through its artificiality, had lost all approach to a natural mode of living, and through its cosmopolitanism all national and local feeling. The propaganda of the Enlightenment had been confined to no one country; literature in the vernacular first came to be cosmopolitan through Locke, Pope, and the novelists of England, through Voltaire and the encyclopedists of France and the philosophers of Germany. This stilted wisdom and affected superiority of the learned class, now shunning simplicity as a mark of vulgarity and naturalness as a mark of irrationality, developed into a formalism that was no less repressive to the masses and no less distasteful to many. The formalism of morality into which the pietistic and Puritanic morality degenerated is well illustrated in the English novels of the eighteenth century, especially those of Richardson. The formalism of the Enlightenment is equally well illustrated in the conception of morality, of politeness, and of sympathy revealed in Lord Chesterfield's *Letters*. The later eighteenth century, weary of the formalism of both, became, under the leadership of Rousseau, directed to a new purpose.

THE NATURALISTIC PHASE OF THE EIGHTEENTH-CENTURY MOVEMENT. — Until the middle of the century, philosophy and reason concentrated most of their attacks upon the Church; after the middle of the century, criticism was directed toward the evils of the social and political organization of life. The earlier aim was to destroy the existing abuses; the latter rather toward building up an ideal society.

But there were other more fundamental distinctions between the two movements. The rule of reason had come to be for many no less a tyranny than the rule of authority. As opposed to the earlier belief, the view was now urged that the senses were not always to be depended upon and that reason was not always infallible. On the other hand, the emotions or the inner sentiments, as true expressions of our nature and as opposed to the cold, selfish calculations of reason, were rather to be followed as the guide to right conduct. The movement of the latter half of the century looked toward the improvement of the masses of the people, as the former had resulted in the formation of an intellectual aristocracy.

Rousseau was the leader of the one as Voltaire was the leader of the other: Voltaire a leader in the first because of his brilliant intellectual power and his far-reaching rationalism; Rousseau a leader in the second because of his deep emotionalism and his profound sympathy for the people. "If it is an explanation of the popularity of Voltaire that he said what most were thinking, then we may say that Rousseau was popular because he gave the most perfect expression to what others were feeling."[1] The early movement had led to freedom of the intellect, but yet had tolerated, or preserved for selfish reasons, the formalism of social institutions. Since he had neither the ability nor the training to move with ease in this formal life of society when the opportunity was given him, Rousseau, led partly by personal feeling and partly by sympathy for the common lot made miserable by this indifference of the upper class, revolted most violently and propounded in place of the old law of reason the new gospel of

[1] Willert in *Acton's Cambridge History*, Vol. VIII, p. 28.

faith in nature, in the common man, and in man's ability to work out his own good in life. Contrasting with the majesty of the monarchy, the gayety and luxuriousness of the lives of the nobility, the brilliancy of society, La Bruyère drew a picture of "certain wiid animals, male and female, scattered over the fields, black, livid, all burnt by the sun, bound to the earth that they dig and work with unconquerable pertinacity; they have a sort of articulate voice, and when they rise on their feet, they show a human face, and, in fact, are men." Quoting this, Morley adds: "There is no reason to think that Voltaire ever saw this gaunt and tremendous spectacle. Rousseau was its first voice. Since him the reorganization of the relations of men has never faded from the sight either of statesmen or philosophers with visions keen enough to admit to their eyes even what they dreaded and execrated in their hearts. Voltaire's task was different and preparatory. It was to make popular the genius and authority of reason."[1]

But the task of the second half-century, under the leadership of Rousseau, was to develop a new faith in man, to work out a new ideal in life, to infuse a new spirit into society, and to reëstablish a basis for religion in man's nature. When we take the old period and the new, each at its best, we find a profound difference between them. The same historian sums up the difference between the attitude of the naturalistic period and that of the period preceding the Enlightenment as follows: "Faith in a divine power, devout obedience to its supposed will, hope of ecstatic, unspeakable reward, these were the springs of the old movement. Undivided love of our fellows, steadfast faith in human nature, steadfast search after justice, firm aspiration toward improvement, and generous contentment in the hope that others may reap whatever reward may be, these are the springs of the new."[2]

One other aspect of this difference between the rationalistic and the naturalistic movements, between Voltaire and Rousseau, was their attitude toward religion. Voltaire held that all religion was an illusion to the believer and a deception by the priesthood. The naturalists, while they rejected both the skepticism of the *illuminati* and the old ecclesiasticism which they considered to be the superstition of orthodoxy, held and popularized a "natural religion," which included the morality of Christianity but excluded more or less completely the supernatural element. The criticism of this natural religion does not concern us here any more than does a criticism of the position of the skeptics; but it is important to note that the naturalists believed in religion as an essential part of human society because it was an essential part of human experience. The attitude of the Revolutionary Convention is a just commentary on the difference between the two movements in this respect: they affirmed the belief of the French nation in a Supreme Being and in the immortality of the soul, and accepted the confession of the Savoyard Vicar (from the *Émile*, Bk. IV) as the established faith. Skepticism and atheism were pronounced to be aristocratic and not to be endured.

The general conception of civilization held by Voltaire and his associates eliminated religion; permitted the populace no rights; had no sympathy with the masses; erected a polished, intellectual society, preserving its identity by a cold formalism and its morality by a punctilious observance of stiff rules; accepted reason as a guide in thought, materialism as a standard in morality, and self-interest or rather selfishness as the principle of action. In this conception of society is to be found the animus of Rousseau's contention that civilization is a curse. Of this contrast Flint states:—

"Voltaire's appreciation of civilization was likewise at once very sincere so far as it went, and yet very defective. He had a genuine enthusiasm for culture of a kind; a keen sense of the worth of science, art, literature, and social refinement. But his idea of civilization was most defective. It excluded

[1] *Voltaire*, pp. 27–28. [2] Morley, *Rousseau*, Vol. I, Introd.

all earnest religions of faith, and included nothing higher than intellectual cleverness, moral respectability, and polished manners. It was not the idea of a civilization appropriative of all that is human, comprehensive of all that educates mental and spiritual life, and which, while it should refine and discipline nature, should likewise preserve its simplicity, respect its freedom, and favor individual and national originality; but rather that of a civilization of a special and artificial type, such as can only be local and temporary, and as was to be seen in all its glory in the fashionable *salons* and philosophic circles of Paris in the Voltairian period."[1]

In regard to education in the schools the rationalistic movement had little direct influence, though it controlled the private education of the upper class. The character of this can be judged from the ideals of life and conduct elaborated by Lord Chesterfield for his son. An education of worldly wisdom, a perfection in forms of behavior, a lack of all that is most serious in life, an emphasis on the importance of polite conduct, a higher appreciation of manners and courtliness than of virtue and seriousness, an attention to outward form without regard to inward reality, a smattering of knowledge of all kinds, a purely materialistic judgment of affairs of life, a nature developed to decide all things in the cold light of reason, full command of the body, with opinions never fully revealed, — these constitute the ideals of the education of the rationalistic-aristocratic period. It is but a further formulation of the social realism of Montaigne, in some respects a degenerate one, though in others an advance upon it. The connection so often made between Rousseau and Montaigne is because of their relationship to the intervening rationalistic period; the one contributed to its origin and the other made concrete and gave a new form to its great abstract principles. Yet compared with that advocated by the rationalists, the education of the naturalistic period is about as reactionary as could be constructed.

[1] *History of the Philosophy of History in France*, p. 300.

It is not in the details of the "education according to nature" that we are here chiefly interested; nor in the fundamental distinctions it opposes to the education of the rationalistic period. The main point to notice is that just as the great doctrines of liberation of the common man find their origin in the teachings of Rousseau, so also do the great educational doctrines of the liberation of the child. As the *Contrat Social* contains the germs of the Declaration of Independence and of the American Constitution, so the *Émile* contains the germinal ideas of the kindergarten, of modern elementary school work, and of the entire modern conception of education.

The extravagant form in which the doctrines are stated, the wild emotional vagaries of the author, his offensive personality, his inconsistent career, his evil influence, — political, literary, moral, — should not blind one to the fact that from him we obtain our idea that education starts from the child, that its process is determined by the child nature, and that its aim is summed up in the child's character and social relation; in other words, our idea of all that has since been elaborated as the details of the doctrines and processes of modern education.

JEAN JACQUES ROUSSEAU. — Essentially democratic, as the early phase of the Enlightenment had been essentially aristocratic, forming at once the culmination of the Enlightenment and the basis of nineteenth-century thought and life, the naturalistic movement finds both its origin and its most notable and influential exponent in Jean Jacques Rousseau. To estimate aright the ideas and purposes of this man, to understand the essential principles of the movement itself and its relation to the manifold institutional changes soon to be brought about, especially to gain any conception of its bearing on the development of educational thought, one must be prepared to lay aside all prejudices in the consideration of

a character in whom, probably beyond all others, is to be found the greatest mixture of strength and weakness, of truth and falsity, of that which is attractive and that which is detestable. A man governed wholly by his emotions, possessing the highest ideals with the greatest power of embodying them in words, but the slightest ability to realize them in action, with clear insight, unbounded sympathy, little accurate knowledge and less of disciplined power of mind, he gave an impetus to ideas held and expressed by many others that has made him one of the most powerful factors in all history. Napoleon said that without him the French Revolution would not have occurred; and, while it is impossible to say what would or would not have happened, he certainly caused a more complete revolution in educational thought and practice than any one man or group of men that we have to consider. He it was who first preached the political and social gospel of the common man and gave to him an education as a right by birth. To quote again from Morley: "It was in Rousseau that polite Europe first harkened to strange voices and faint reverberations from out of the vague and cavernous shadow in which the common people move."

Rousseau was born (1712) at Geneva, — a city renowned for its great intellectual and moral vigor, and its influence in these respects on Europe exerted through the dominant Calvinism of the Protestant population of France, England, and Scotland. In Geneva prevailed an earnestness of moral life, purity of domestic relations, simplicity of social order, freedom of government, that were in sharp contrast with the luxury, the wealth, the artificiality, the immorality, the cynicism of Parisian life. It was the memory of these early associations, intensified by the contrast with his later Parisian associations, that undoubtedly furnished the elements of the ideal natural state pictured by Rousseau; for to the burgesses of his native city, who later reciprocated by ordering his books burned by public hangmen, Rousseau dedicated

the work in which this ideal is most clearly set forth, his *Origin of Inequality among Men.* His training in early years was one of indulgence; and, while he was early taught to read, he devoted his early years to the unrestricted devouring of roman— —an experience which fixed in him a native tendency to sentimentality, even to sensuality. A few years of more formal education, very indifferently attended to, failed to make any radical change in his character thus early formed. At twelve we find him apprenticed to a trade, where, according to his own account, he learned more of deceit, idleness, and dishonesty than he did of craftsmanship. Four years later, still consulting only his emotions and the whims of sentiment, he became a common vagabond. But this life, continued for several years, had one merit, in that it strengthened both his love for and knowledge of nature. Converted one hungry day by a bottle of wine, a full meal, and the hospitality of a priest, whom he later makes famous as the Savoyard Vicar, he changed his religion and allowed this chance incident to shape his life for years. It is profitless from our point of view to follow his life in detail, except that one may see in the concrete Rousseau's ideal of education. Of an emotional rather than of a rational character, exalting natural instincts and desires above reason, holding that moral and religious ideas could not develop in early childhood, positing that more was to be derived from association with nature than from communion with books or from the intelligence of others, that proper development came from removing all restrictions and allowing natural tendencies to have full sway, — this conception of education was merely the outgrowth of his own life. The only permanent and elevating interest he seemed to possess throughout this period, as well as the only activity in which he possessed any ability, was music. As performer and as composer, if not as teacher, he possessed considerable talent, and contributed upon his specialty many of the treatises for the encyclopedic publications of his

day. When about forty, his aimless, meaningless existence became possessed of a great idea—an idea which gave point to his sentimental vaporings, to his emotional prejudices and beliefs; an idea that through him was to revolutionize the social structure of his adopted country as well as to modify profoundly that of many others; an idea which when applied to education was to create a new epoch therein as well. In brief, the main idea was simple, and now commonplace enough. Human happiness and human welfare are the natural rights of every individual, not the special possession of a favored class; legitimate social organization and education exist but to bring about the realization of this desideratum. To this he added as a main argument, — the fuse which was to explode the bomb, — science, art, government as then constituted, prevented this realization and hence were objects for destruction.

DOCTRINE OF THE "NATURAL STATE." — In 1749, coming by chance across the theme for a prize essay propounded by the Dijon Academy, — one of the institutions which during the eighteenth century did so much to make France famous in literature, art, and science, — Rousseau was seized with what he terms an inspiration. This indeed was one of those spontaneous convictions reached without any previous rational reflection, which were so influential in the life of this great exponent of the emotions and which were about as near an approach to definite rational processes as he ever reached. The theme was formulated in the question: "Has the restoration of the sciences contributed to purify or corrupt manners?" His answer was the negative one elaborated in the idea of the "natural state," — an idea much discussed during this period and by some even given the same form as that now propounded by Rousseau. But, unlike others, Rousseau furnished in defense of this thesis an emotional fervor and a literary style that carried conviction, and

to him belongs the honor of securing its popular acceptance. Rousseau did but little more than idealize his remembrance of the simple Genevan life and society, together with that of his own aimless, emotional life. As we recognize the primitive man to be, so certainly by his own showing was Rousseau in his worst moments, "lying, faithless, slanderous, thievish, indecent, cruel, cowardly, selfish." But this life had its positive side also; it was entirely spontaneous; it was simple, happy, contented, carnest, honest — in the sense of true to life; herein we find later one of its chief educational bearings. Compared with the life which Rousseau contrasted it with, — the formal, false, hypocritical, superficial, unfeeling, harsh, selfish, cruel, and to him inhuman life of Parisian society, — this life according to nature had much to commend it. Much of the unattractiveness of its form was due to the lack of that sophistication so characteristic of the social life of the times and was more than counterbalanced by its genuineness; while its strength lay in its recognition of the worth of the individual on his own merits, in the bond of sympathy which it recognized as the universal solvent, in its passion for freedom and for independence from the trammels of usage, tradition and tyranny.

Rousseau had now spent several years in contact, though not in sympathy with, the society of culture, wealth and position, on the one hand and, on the other, with that circle of powerful intellects centered around Voltaire which controlled the new thought and influenced most of the political and social hierarchies of Europe. With neither of these societies had he any sympathy; for the one principle which he honestly lived up to throughout his life was the democratic one, — his feeling for the common man, his belief in the worth of the individual. It was this hollow and insincere, though brilliant, witty, wealthy and "cultured" society that was before him when he produced his famous essays and those works for the following thirteen years ending with the *Émile*, which were to render him famous and to revolutionize society.

The argument, if argument it may be called, stripped of all its rhetorical embellishment and wealth of illustration, conveys little of the forcefulness and none of the fervor of the original essay and the subsequent defenses of the theme. Herein we find the negation of the Renaissance in all of its phases, including the rationalistic literary enlightenment then reaching its culmination. This, for us, is the significance of these ideas and of the following which they speedily obtained.

The second discourse, *On the Origin of Inequality of Men*, is devoted largely to an imaginary description of the state of society among primitive men. Here one finds only the physical or intellectual inequality established by nature, which under the natural conditions of primitive life hardly reveals itself and hence causes no diminution of the happiness, contentment, and welfare of man. Man is not then vicious, for he does not know what being good or bad is. He has one primitive virtue, that of pity, which takes the place of laws, manners and customs. It is reflection which isolates man; it is philosophy which leads one to say to a fellow-creature, "Perish if needs be; I am safe and sound." Through difference in natural talent, in environment, but, more than all, through the rise of private property, those social inequalities arose that have been magnified and perpetuated by political society. Political power is developed and organized to protect accumulated property. Inequality, summed up in the distinction between the rich and poor, becomes differentiated into many forms. It is to perpetuate these inequalities, of which modern society consists, that all political power exists.

The idea of this discourse leads to that of Rousseau's chief political treatise, the *Social Contract*, wherein the basal doctrines of the French Revolution as well as of our own Declaration of Independence are laid. Government is the result of a "contract" among the people, by which some are given delegated power to rule, while the remainder of the people give to the governing class some service in return for services performed. Government, thus formed by agreement, can be dissolved when the parties no longer agree. It is to be noted that the conception of the "natural state" is modified in the *Social Contract;* it is no longer the life of the savage that is ideal, but the life in society organized under the rule of the people. Such a society — where the simple tastes and wants of the masses shall dominate and where an aristocracy with its ill-gained wealth, leisure time, and selfish indulgence is wanting — can devote itself to the development of an ideal life, wherein the "natural man" is not hampered, freedom is not lost, and the arts and sciences of polite society are undeveloped.

With the detailed argument of these *Discourses*, full of error as they are, we are not here concerned, but primarily with an exposition of their fundamental ideas and with their influence on educational thought.

THE "ÉMILE" AND EDUCATION ACCORDING TO NATURE. — In this long tale, part novel, part didactic exposition, Rousseau relates the proper education of the youth by showing the training of the child taken from his parents and the schools, isolated from society, and put into the hands of an ideal tutor, who brings him up in contact with nature's beauties and nature's wonders.

Threefold Meaning of Nature in the "Émile." — Though "education according to nature" is given a wider meaning, the doctrine of the natural state, as previously defined, here receives one of its fullest expositions and its most thorough application. In the opening sentence of the work the fundamental principle is stated: "Everything is good as it comes from the hand of the author of nature; but everything degenerates in the hands of man." We receive our education from these sources; from nature, from man, from things. When the training received from these three teachers is not harmonized, the individual is badly educated. "He in whom they all

coincide and tend to the same end, he alone may be said to move toward his destiny and to live consistently; he alone is well educated." Over two of these man has considerable control; over the third, nature, — "the internal development of our faculties," — he has none. Harmony in education is obtained by subordinating the education of man and of things to that of nature.

Nature is a habit, education is nothing but a habit. But habit is used in two senses. Primary dispositions, unaltered by enlightenment, by sophistication, or by suggestion from others constitute nature. Habit in this sense is to be followed; but habit in its usual significance indicates that which is acquired by direct imitation of other human beings, by suggestion, or by obedience to command. Concerning this Rousseau later says: "The only habit which the child should be allowed to form is to contract no habit whatever." As a subordinate connotation throughout the treatise, education according to nature thus indicates that the instinctive judgments, primitive emotions, natural instincts, "first impressions," are more trustworthy as a basis for action than all the reflection, the caution, the experience that comes from association with others. "Before this alteration (by habits of thought and judgment acquired from others) these dispositions are what I call our nature."

The fundamental meaning of "the natural state" in the *Émile* is its social one. This, however, is not, as contended in the *Discourses*, that the state of primitive man is superior to all higher forms of culture. But as in the *Social Contract*, he shows how a state of high culture can be based upon a truer political principle and thus a nobler type of social life than that of the eighteenth century evolved; so in the *Émile* he propounds an education, based not on the forms of society, the meaningless traditions of the school and a misconception or entire ignorance of childhood, but on a knowledge of the true nature of man. As in the *Social Contract* he taught that

the only rights of man, natural rights, were those found in the laws of his own nature, so, according to the *Émile*, education is to be guided by these same laws. The "natural man" is not the savage man, but man governed and directed by the laws of his own nature. Such laws, as are the laws of any other portion of nature, are discoverable through investigation. Most criticisms of Rousseau (and very many of these may be valid) are based upon the fact that Rousseau himself, like most others, was ignorant of the real facts, certainly of the laws, of human nature, and that, despite the lack of actual knowledge, he was given to dogmatizing.

This being, according to Rousseau, the primary meaning of education according to nature, an opposition to society follows as a corollary. "We must choose between making a man and a citizen, for we cannot make both at once." But it must be understood that in a citizen and in society he had primarily in mind the civilization of the eighteenth century. In the *Social Contract* he had shown how a high state of culture, one infinitely preferable to the existing one, could be developed on a different social principle, that of individual choice, instead of that of arbitrary authority. Yet much in the situation is of general significance and is but a new form of the old problem of individual rights and social welfare. The same individualistic solution is given by Rousseau as was given by the Sophists and by the early Renaissance leaders. While Rousseau often suggests a rather vague doctrine of the primacy of self-love and love of goodness among human motives, no harmonization of this conflict is sought or found as it was by the Greek philosophers or the humanists of the reform period. As with the rationalism of the early eighteenth century, so with Rousseau, criticism is negative and destructive, with little of the constructive element in it. The positive interpretation is to be found in the following period: philosophically, with Kant and Hegel; educationally, with Herbart and Froebel.

"The natural man is complete in himself; he is the numerical unit, the absolute man who is related only to himself or his fellow-man. Civilized man is but a fractional unit, which is dependent on its denominator, and whose value consists in its relation to the whole, which is the social organization." Thus does Rousseau hold exactly the reverse of the thought of the present, which conceives the natural man to be the fraction, which finds completion as the social man as a unit in the greater unity of the whole. But this misanthrope, who at the same time was one of the greatest lovers of the common man and who had profound confidence in human nature, held that "the breath of man is fatal to his fellows." This is one of the paradoxes no less striking in his life than in his writings. Education for social institutions, for custom, — as these dominated in Rousseau's period of extreme artificiality, — he held to be mere slavery; by it the true nature of the child is neglected and true happiness overlooked. "The whole sum of human wisdom," he says, "consists in servile prejudices; our customs are nothing more than subjection, worry, and restraint. Civilized man is born, lives, and dies in a state of slavery; at his birth, he is sewn up in swaddling clothes, at his death, he is nailed in a coffin; so long as he preserves the human form he is fettered by different institutions."

Education, according to nature, had a third meaning in the *Émile*. This results, when the author elevates his chief means, contact with the phenomena of nature, into an end in itself. The mal-education which comes from man is to be counteracted by contact, fearless and intimate, with subhuman nature, — with animals, with plants, with physical forces of all kinds. Rousseau was a "lover of nature," and through his teachings began a movement of finer and fuller appreciation of nature, which found its expression in a wide school of literature both on the Continent and in England. Rousseau's conception, however, based upon a wholly misanthropic view of the life of man in society, was not quite so genial, since it led to complete isolation from society and to the preference for the life of the recluse. Both morally and physically he held that "Cities are the graves of the human species."

When applied to education this threefold view concerning the "doctrine of the natural state" resulted in a number of corollaries which were revolutionary.

Negative Education. — The prevailing conception of human nature and especially of child nature, reënforced by both educational and religious teachings, was diametrically opposed to that of Rousseau. Human nature was considered essentially bad; the purpose of religious training as well as of education in general was to eradicate the original nature and to replace it by one shaped under man's direction. Rousseau opposed this idea with the following principle: "The first education then should be purely negative. It consists, not in teaching the principles of virtue or truth, but in guarding the heart against vice and the mind against error."

With him the entire education of the child was to come from the free development of his own nature, his own powers, his own natural inclinations. His will was not to be thwarted.

"Experience or want of power ought alone to supply the place of law in regard to your pupil. Never let him have anything because he demands it, but because he needs it. Let him not know what obedience is when he acts; nor what authority is when others act for him. Let him be sensible of his liberty, alike in his own action and in yours. Is it not very extraordinary that the persons concerned in the education of children should never have devised any other instruments for managing them but jealousy, envy, vanity, greediness, and fear, passions all of a most dangerous tendency, the quickest to ferment and the most proper for corrupting the soul, even before the body is formed? At every crude lesson which you want to drive into their heads, you plant a vice in the depths of their heart. Some foolish teachers think it a great thing, that, to the end that they may

learn the nature of virtue, they thus should become vicious; and then they tell us, with grave countenance, that his nature is such. Yes, truly, as it was spoiled by you. All instruments have been tried but one, the only one which can succeed, — well-regulated liberty."

By this negative education, expounded in most startling paradoxes, Rousseau did not maintain that there should be no education at all; but that there should be one very different *in kind* from the accepted educational practices. In one of his letters in defense of the *Émile* against the many attacks made upon it, the author wrote: "I call a positive education one that tends to form the mind prematurely, and to instruct the child in the duties that belong to a man. I call a negative education one that tends to perfect the organs that are the instruments of knowledge before giving this knowledge directly; and that endeavors to prepare the way for reason by the proper exercise of the senses. A negative education does not mean a time of idleness; far from it. It does not give virtue, it protects from vice; it does not inculcate truth, it protects from error. It disposes the child to take the path that will lead him to truth, when he has reached the age to understand it; and to goodness, when he has acquired the faculty of recognizing and loving it."

Interpretation of Negative Education. — This doctrine applied to physical education demanded the greatest freedom for the child, commended the most simple diet and clothing, condemned all medical treatment, and insisted upon a life in the country and in the open air. When applied to the intellectual training of the child it taught that little attention should be given to the child's intellectual training until after the age of twelve. "Childhood is the sleep of reason." Therefore the child should not be presumed to reason — even to read or work during this period. In its moral application this doctrine of negative education led to the formation of an hypothesis that since has had much influence and some able

interpreters, notably Herbert Spencer. This is the doctrine of moral training by natural consequences: allow the child to suffer the natural results of his own acts without the intervention of human beings to protect or to punish. As interpreted by Rousseau this meant, further, that the educator might correct the child so long as he could make it appear to the child that the punishment came through natural consequences and that human interference had nothing to do with it. If the child is slow in dressing for a walk, leave him at home; if he breaks a window, let him sit in the cold; if he disobeys and gets wet, let him have a cold and be compelled to remain indoors; if he overeats, let him be sick; if he is indolent and will not perform tasks assigned, let him go without food that would come as a result. In fact, let him suffer the natural results of the contravention of any laws of nature or of his own being; so far as concerns opposition from individuals, he should be opposed by no will of man, by no human authority.

While this doctrine has some obvious advantages and contains much truth, there are limitations upon its applicability that render it entirely unsatisfactory as a sole guide. While there is no room for discussion, a few of these may at least be mentioned. The value of such a principle depends altogether upon the pupil's connecting cause and effect; but Rousseau has already taught that, during the period wherein this doctrine is to be most thoroughly applied, the child does not reason. Therefore he would be unable, at all, to receive any *moral* instruction from such a procedure.

Aside from this reaction upon one's self, it is a large question whether the effects upon one's own physical being or individual welfare are the only ones to be considered. The results upon the feelings and the welfare of others are to be considered and cannot be left for development merely to natural love of goodness. Further, if all authority is to be thrown aside, is there no profit in the

experience of others? Rousseau thought, as that experience was embodied in literature, history, customs, institutions, there was little. To those who deny all legitimacy to authority, there is no answer to be made, for the individualism of Rousseau is sufficient; but in this position Rousseau himself was far from consistent.

Further, such a training would lead to the judgment of all acts from consequences rather than from motives, and to the development of prudence rather than of morality. Even granting that this were not true, it is difficult to see how such an education would ever develop *positive* moral character. Positive virtues could hardly be produced through the avoidance of non-pleasurable results to one's self alone, especially when the unreflective character of childhood is taken into consideration.

The practical objection that this method of training would lead to irreparable injury before the child could be educated need not be considered.

While these general principles of negative education underlie all education, Rousseau held that each phase of education, physical, intellectual, and moral, had an appropriate stage. The old attitude toward education — that it was a procedure uniform in character throughout and that the child was to be treated and the child mind to be trained just as the adult would be — Rousseau rejected; but he went to the other extreme and held that development of the child was through sharply defined periods which had little or no connection with each other and that each of these periods possessed an education of its own.

Education from One to Five. — Devoted largely to the statement of general principles, previously summarized, this first book of the *Émile*, treating of the education of the child from one to five, adds little of the concrete. The father is the natural teacher, as the mother is the natural nurse. By these two is to be given the early training, for the most part physical. The substance of the education of this first period is the opposition to the customary restrictions of swaddling clothes, of restraints on freedom, and of indoor life; opposition to the thwarting of natural inclinations and desires, and of punishment for acts before the child can have any conception of wrong or of why punishment is given. It includes extravagant praise of life in the country, of freedom, of sports and games, and of exercise. "The weaker the body, the more it commands; the stronger it is, the better it obeys. All the sensual passions find lodgment in effeminate bodies." "All wickedness comes from weakness. A child is bad only because he is weak; make him strong and he will be good. He who can do everything does nothing bad." These are the principles, however defective, that underlie all this earlier training. Little attention is to be paid to his intellectual and moral development. Effort should be made, even, to restrict his vocabulary. "It is a great disadvantage for him to have more words than ideas, and to know how to say more things than he can think."

1 - 5. Family - Phys.
5 - 12 - critical - Education negative, moral train.

Education from Five to Twelve. — This, "the most critical period of human life," is to be controlled by the two principles already elaborated, that education should be negative and that moral training should be by natural consequences. It is in his description of the proper education of the child during this period that Rousseau manifests most clearly his hostility to the type of education then prevalent. Instead of attempting, as is ordinarily done, to give the child all sorts of ideas, nothing at all should be done toward molding or forcing his mind. Childhood is for its own sake. "Nature desires that children should be children before they are men." The child need not be taught to read, though probably he will pick this up on his own accord. He will hardly know what a book is. "Exercise the body, the organs, the senses and powers, but keep the soul lying fallow as long as you can," is his advice. While the child knows nothing of

books and of that which passes for knowledge, "on the other hand he judges, foresees, reasons on everything which is directly related to him;" for this education is to be largely a training of the senses, such as can be gained by constant life with the forces and phenomena of nature. He measures, weighs, counts, compares, draws conclusions, tests inferences, discovers principles.

Education from Twelve to Fifteen. — This is the one period in life in which the strength of the individual is greater than his needs. As intellectual training has for its general result the multiplication of wants without any corresponding development of power adequate to meet those needs, this is the one period in life in which greatest stress can be laid upon the acquisition of knowledge. What will the child do with this surplus of power and energy?

"He will endeavor to employ it in tasks which may profit him when the occasion comes; he will project into the future, so to speak, that which is superfluous for the time being. The robust child will make provisions for the feeble man; but he will place these stores neither in coffers which can be stolen from him, nor in barns which are not his own. In order that he may really appropriate his acquisitions to himself, it is in his arms, in his head, and in himself, that he will lodge them. This, then, is the period of labor, of instruction, and of study; and observe, it is not I who have arbitrarily made this choice, but it is nature herself who indicates it."

But, after all, there are comparatively few things to be known that are of value. Curiosity — that ardor for knowledge which comes from natural desires, the innate desire for well being, not the ardor for knowledge that is founded on the desire to be considered wise — is the sole motive and the sole guide. The test of all is its practical use. "Let us then reject from our primary studies those branches of knowledge for which man has not a natural taste, and let us limit ourselves to those which instinct leads us to pursue," is his statement of a principle far more widely accepted in this day than in his own. There is little of "book knowledge" even in this period. *Robinson Crusoe*, a study of "life according to nature," of self-help, of the uselessness of most knowledge and of all social forms, is the chief book recommended. Knowledge is to be clearly distinguished from truth and the *useful* from both.

"Since all our errors come from our judgment, it is clear that if we never needed to judge we should have no need to learn; we should never be in a situation to deceive ourselves; we should be happier in our ignorance than we could be with our knowledge. Who denies that scholars know a thousand true things which the ignorant will never know? Are scholars nearer the truth on this account? Quite the contrary: they depart from truth as they advance; because the vanity of judging, ever making greater progress than knowledge, each truth which they learn brings with it a hundred false judgments. It is absolutely certain that the learned societies of Europe are but so many public schools of falsehood; and very surely there are more errors in the Academy of Sciences than in the whole tribe of Hurons."

Among other things, Émile has learned a trade, "less for the sake of knowing the trade than for overcoming the prejudices which despise it." In his long discussions of the importance of the manual and industrial activities in education, Rousseau emphasizes many of the social advantages, without comprehending at all the psychological advantages that are so emphasized at present. At the end of this period "Émile is industrious, temperate, patient, firm, and full of courage. . . . He has little knowledge, but what he has is really his own; he knows nothing by halves. . . . Do you think that a child who has thus reached his fifteenth year has lost the years preceding?"

Education from Fifteen to Twenty. — Hitherto Émile's body, senses, and brain have been formed; it is now time that his heart should be shaped. Hitherto the child has been educated solely for himself and by himself; self-love has been the con-

trolling motive; self-perfection, self-development, the ultimate end. Now the youth is to be educated for life with others and is to be educated in social relationships. Love for others becomes the controlling motive; emotional development, moral perfection the goal.

Rousseau first called attention to the transcendent importance of the period of adolescence in education. "At this stage the ordinary course of education ends; but strictly speaking here one's should begin." Up to this time Émile has not been brought, save indirectly, into contact with others; he has not had to adapt himself to the conduct and interests of others; he has known no motives save those of self-interest and curiosity. He has probably never even heard the name of God. Now his education is to be strictly moral and religious. Previous attachments for persons have been merely the result of habitual association; now they are based on unity in sympathy and upon emotional experience. The whole character of his education changes. "The study proper for man is that of his relations. While he knows only his physical existence, he should solely study his relations to things; this is the employment of his childhood. When he begins to feel his moral existence, he ought then to inquire after his relations to mankind; for this is the proper occupation of his whole life, beginning from the period which we have now reached."

Self-love, in which are latent both good and evil, is now to be turned irrevocably toward the good. The basis of all this is the emotional life. "From the first movements of the heart, arise the first utterances of the conscience; and, from the first feelings of love and hate, spring the first notions of good and evil." As this training was to be secured in the earlier period by the preservation of his native modesty through the negative training, so now, not through precept, but through contact with men, through the example of his tutor, through the study of history, is this development to

be secured. "I do not grow weary of repeating that all the lessons of young men should be given in action rather than in words. Let them learn nothing in books that can be taught them by experience." And yet Rousseau was far from preaching the dangerous doctrine that one should learn to avoid evil through experience of its consequences. "There is no ethical knowledge which cannot be acquired through the experience of others or through one's own. In case the experience is dangerous, instead of making it ourselves, we draw the lesson from history. When the trial is without consequences, it is well for the young man to remain exposed to it." Thus, Émile is taught not only to shun evil, but to do good. Especially the poor and the oppressed call for his sympathy and his assistance. While he is firm in the assertion of his own rights, and is quick to the defense and protection of others, he is an exponent of the virtues of peace. "The spirit of peace is the effect of his education."

In a similar way he receives his religious education. "At the age of fifteen, he did not know that he had a soul, and perhaps at eighteen it is not yet time for him to be informed of it; for if he learns it too soon, he runs the risk of never knowing it." This last clause contains the underlying principle of his teaching concerning religious education. Otherwise, the religious ideas the child gets are mere forms, verbal imitations, worthless so far as real experience is concerned. Rousseau's development of the idea of a natural religion — the confession of the Savoyard Vicar — occupies a large portion of his work. While this is the portion of the treatise that caused the book to be burned by public executioner and the author to be expelled from Paris, we can devote no attention to it here, since it is aside from our main interest.

The Education of Women is treated in the fifth and last book. Though a prolonged treatise, it is of but little interest here, since it does not elucidate at all Rousseau's main principle. In fact, since Sophia's entire education is to be

determined by her future career as the life companion of Émile, Rousseau violates his fundamental idea, that each individual is to be educated for himself and guided by the needs and rights of his own personality. The animus of the entire argument is clearly revealed in this one sentence of condemnation of the prevailing literary education: "A woman of culture is the plague of her husband, her children, her family, her servants, — everybody."

SOME PERMANENT RESULTS OF ROUSSEAU'S INFLUENCE. The Education of Natural Interests vs. the Education of Artificial Effort. — That education is a natural, not an artificial process; that it is a development from within, not an accretion from without; that it comes through the workings of natural instincts and interests and not through response to external force; that it is an expansion of natural powers, not an acquisition of information; that it is life itself, not a preparation for a future state remote in interests and characteristics from the life of childhood, — these ideas constitute the fundamental teaching of Rousseau. The great variety of forms which these ideas have been given during the nineteenth century, even by many who repudiate the doctrines and influences of the "great leveler," are, after all, but new versions of the truth originally proclaimed in somewhat exaggerated form by Rousseau.

The old conception of education aimed to remake the nature of the child by forcing upon him the traditional or customary way of thinking, of doing, and even of emotional reaction; to substitute for the instinctive or "natural" reaction of the child those artificial reactions developed through many generations of religious, intellectual, and social formalism. Human affections were evil, and hence the heart was to be separated from the objects of natural desire. Human senses were untrustworthy, and hence could not be made the basis of knowledge or of instruction. Human inclinations

and instincts, springing from a nature depraved in its essence, were toward the evil and were to be eradicated. Natural interests, as expressions of the nature which both education and religion sought to repress and make over, were to be shunned in all educational processes. To the extent that an activity or task was difficult to perform intellectually and was distasteful emotionally, to this extent it possessed educational value. The first step in the moral education was to "break the will of the child," which in its perverseness but represented the evil of human nature. This was to be followed in his social and moral education by the constant effort to mold the child into the artificial forms of conduct, wherein a real and natural motive was hidden in formal behavior satisfactory to the judgment of the adult, even though it might conceal a motive contradictory to the external expression.

Religious, philosophical, psychological, social, educational beliefs and practices, coincided in this attitude toward the child.

Not only did the religious and philosophical view reject an education founded on the training of the senses, the use of the imagination and the guidance of natural interests and instincts, but, as has been seen in the previous chapter, the dominant psychological views implied the same attitude. The mind as a bundle of faculties was to be developed by exercising these various powers upon appropriate tasks whose value consisted in the difficulties they offered. These faculties were considered to have no necessary connection with one another, hence these disciplines were separate and distinct things; though some faculties were higher than others. The highest was the reasoning power to be developed by appropriate discipline in mathematics, logical disputations, and the languages; but the faculty upon which all the others depended, and upon the successful development of which depended the success of the education, was the

memory. Discipline of the memory then took precedence above all other exercises. The best training for the memory was afforded by the mastery of material which had no inherent interest for the child.

The social ideals of the time favored this same view. The child was considered but a miniature adult — of no value and of no rights until he could mimic the way of the adult. In this most artificial of all ages, in dress, in manners, in deportment, in pleasures, the child was molded on the pattern of his seniors, with the results that child life was almost eliminated from the upper classes. Previous to the Rousseau period, the child as he appeared in literature was merely the adult viewed through the wrong end of the telescope. He spoke as an adult, thought as an adult, acted as an adult. Educationally he studied the same subjects as the adult, — preëminently the languages; approached them from the same logical point of view, through formal grammar; mastered them through sheer effort of memory; made the same formal use of them, in the same artificially organized life.

All the subsidiary precepts of Rousseau were but concrete applications of his one general protest against this entire conception of education. "Take the reverse of the accepted practice, and you will almost always do right," he advised. Hence he reiterated in a variety of forms the thought that, "Whatever may happen, abandon everything rather than have his [the child's] tasks become irksome; for how much he learns is of no account, but only that he does nothing against his will."

Thus in Rousseau is found the negation of the conception of education of the Renaissance and of all of its subsequent development. All of these had considered education to be the making over of the child in the hand of man through the use of literature, religion and similar means, into a being different from the natural being, into one possessing knowledge valued by his fellows, ways of acting approved through

social institutions, ways of reacting emotionally approved by the current religion and morality. To such an artificial product, Rousseau opposed the human being educated through contact with nature, guided by his own natural interests and determined by his own inherent capacities and tendencies. In all the preceding period the educated man was the learned man, the man possessed of social culture; to Rousseau the educated man was the well-developed man.

The dominant views considered the value of any particular training to lie in the effort necessary to overcome difficulties. Rousseau conceived it to be in the interest stimulated in the child. This conflict between the education of effort and the education of interest instituted by Rousseau continues until the present time. The conflict between the elective and the prescribed course in college, between the disciplinary studies and the interest or content studies in the elementary grades, are aspects of the same struggle. The reconciliation in theory and the embodiment in practice are the tasks of the present.

The fundamental truth of the position that he emphasized, and that subsequent experience has striven to realize in practice, is that all educative efforts must start from the instinctive tendencies. The effort to thwart them, to stifle them, to eradicate them instead of to modify or reorganize them is the great error of educators. The reaction of the child against unnatural treatment often results in producing a type of character and a disposition which is then often considered inherently evil. "Their first language, you say, is a tear. I can well believe it. From the moment of their birth, you cross their desires; the first gifts they receive from you are chains; the first attentions they experience are torments."

The Conception of Education as a Process — as the process of living — follows as a corollary from the preceding. Being a process it lasts throughout life, or at least from birth to adult

life, and finds its meaning for any particular stage, not in a future state, but in the process itself: —

"What must we think," he asks, "of that barbarous education, which sacrifices the present to the uncertain future, which loads a child with chains of every sort, and begins by making him miserable in order to prepare for him, long in advance, some pretended happiness which it is probable he will never enjoy? Were I even to assume that education to be reasonable in its object, how could we witness, without indignation, these poor unfortunates, subject, like galley slaves, to never-ending toil, without any assurance that such sacrifice will ever be useful to them? The age of mirth is passed in the midst of tears, chastisements, threats, and slavery."

Education is no longer a procedure, — artificial, harsh, unsympathetic, repressive of all natural inclinations, — by which the child as a little man is made into a big man through the hands of the teacher. But, through allowing natural forces to have their way, it is the process of development into an enjoyable, rational, harmoniously balanced, useful, and hence natural life. The end is reached, not with adult life, but with each succeeding day whenever life has its natural activities, its appropriate duties, and its corresponding satisfactions. Later Rousseau says: "A child knows that he is to become a man, and all the ideas which he can have of man's estate are occasions of instruction to him; but of the ideas of that state which are not within his comprehension, he ought to remain in absolute ignorance. My whole book is but a continual proof of this principle of education."

A Simplification of the Educational Process follows. If education as an artificial procedure, as a making over of the child at the hands of man on the model conventionalized by society, is done away with, the highly elaborated artificial methods of instruction have no further use.

"Let us transform our sensations into ideas, but let us not jump abruptly from sensible objects to intellectual objects;

for it is through the first that we are to reach the second. In the first movement of the mind, let the senses always be the guides; let there be no books but the world and no other instruction than facts. The child who reads does not think, — he merely reads; he is not receiving instruction but learning words."

The latter criticism is as pertinent in regard to much of school work now as in the days of Rousseau. Geography is to be learned in the woods, fields, and hills, by the observation of the position of the sun and the earth, by the study of the stream, the rain, and the changes of temperature; astronomy by the study of the heavenly bodies; botany by the study of plants; the necessary facts and fundamental principles of physics and ch
perimentation; mathematics
activities and in economic r
reading. Geography, histor
at home; only that which ca
should be attempted, and onl
be passed over. "In genera
the thing itself, save when it
for the sign absorbs the att
him forget the thing repres
educational discoveries or re
restatements or other attemp
formulated by Rousseau.

The Child the Positive Facto
belongs the honor of writing
deals primarily with the chil
honor of deriving his educat
of the child. It may be admitted that Rousseau had little actual knowledge of child life and child nature and that his sympathy for children was pure sentimentalism, which was never converted into actual practice; but it is nevertheless true that here first education finds its purpose, its process,

and its means wholly within the child life and the child experience. An appropriate development of childhood is the purpose of each particular stage of education; the child's nature and the child's growth are to determine the process; the child's experience is to furnish the means. All of the pregnant reforms of Pestalozzi, of Herbart, of Froebel, and of the multitude of other reformers of lesser influence thus find their origin in the teachings of Rousseau.

In a similar way sympathy with childhood is emphasized as the qualification for all educational work. "O men, be humane; it is your foremost duty. . . . Love childhood; encourage its sports, its pleasures, its amiable instincts," exclaims the man who forgot much of his own precepts in his own practice. Made theory by Rousseau, made practice by Pestalozzi, sympathy with the child, intellectually, morally, personally, has come to be recognized as an essential in the educative process.

The Foundation of the Nineteenth-Century Educational Development. — Finally, it is to be noted that in Rousseau's teachings, notwithstanding their extravagance, is to be found the truth upon which all educational development of the nineteenth century is based. Rousseau was the prophet denouncing the evil of the old; foretelling, yet seeing vaguely and in distorted outline, the vision of the new. He became the inspiration of those educational reformers who reduced his vagaries to practicable procedure. He was the forerunner of many who, all unconscious of their indebtedness to the despised revolutionist, have followed in the trails he blazed through the forest, until now they have become the broad highway of common travel. The three interpretations which Rousseau gave to his doctrine of nature mark out the lines of educational development during the nineteenth century.

As nature to Rousseau meant the native instincts, tendencies, capacities of the human being as opposed to those acquired through association with his fellows, he demanded

an education which was the unhampered development of these native powers or capacities. Hence the conscious process of instruction must be based upon a study of this native equipment, these natural instincts and interests, and the resulting activities. There grew out from this, especially in connection with the work of Pestalozzi, Herbart, and Froebel, the most important and most fruitful development in the whole history of education. The fundamental idea of this tendency in educational thought derived from Rousseau is that education is a natural process, starting from natural instincts and tendencies to action, guided by principles derived from the study of the child mind in development and the adult mind in its functionings. Thus from Rousseau comes the psychological tendency in education.

In a similar way Rousseau's teaching that the educational material should be the facts and phenomena of nature, that it should consist chiefly in an inquiry into nature's laws, and should be through an intimate, fearless, and constant association with nature rather than man, is the basis for the scientific tendency in modern education. This is not to say that Rousseau's personal or literary influence is responsible for the development of science and of scientific education during the nineteenth century, but that his teachings did lay an educational basis for this tendency and did exert a very material influence in furthering it.

Finally, in Rousseau's teaching that education should aim to develop the virtues of the primitive man, or at least what he considered to be his virtues, that it should prepare the individual to live in a society wherein each should contribute by his own labor to his own support, should be bound by sympathy to all his fellow-men and by benevolence to all that needed his aid, he laid the foundation for, or at least influenced the development of, the sociological tendency in education. In his individualism he clearly emphasized the idea of a social education of a new type. In his emphasis on the

learning of a trade or occupation as a component part of education, in his emphasis on certain fundamental social virtues, in his rejection of the formal education of the times fostered by and fostering in turn the dominant aristocratic classes of his day, in his emphasis upon the emotional and moral as opposed to the intellectual aspect of education, he introduced some of the tendencies that have come to be incorporated, with others already at work in his own times, into the sociological conception of education.

This threefold influence of Rousseau on education and the actual work of the school can be illustrated by the parallel influence which he exerted upon literature. This influence upon literature was more immediate and direct, but not any more real or profound than that on schools. From Rousseau came the great movement in romanticism of the later eighteenth and early nineteenth century. The combination of the heroic in action, the dominance of the passions, the glorification of the sentimental, find here an exposition little less extreme than the more brutal and more frank realism of the earlier period. Attention is turned from personal adventures and social intrigues to the analysis of passions and the descriptions of inner conflicts. The romantic movement in literature is no less a development from Rousseau than the psychological movement in education.

In a similar way Rousseau first made the element of the natural environment a fundamental element in the story of human emotions. With him began the tendency to incorporate into the novel the detailed pictures of natural scenery that should form an appropriate setting for the drama of human life wrought out on the stage of the printed page. The feeling for the beautiful in nature found in him one of its most brilliant and most devoted exponents. In literature, he was the first to revel in the charm of the country and to seek to analyze the influence upon character, of nature, of the mountains, and of the lakes. Thus his influence in education toward the use of natural phenomena as the subject matter and the close contact with nature rather than with books as the method, finds a further parallel in his literary influence.

One further parallel presents itself. Though here Rousseau cannot be said to be an initiator, but rather an imitator of the prevailing English school, he transferred the interest in literature from the palace to the hovel, from the lord and lady to the commonplace mortal. Minute descriptions of the life of the common people and of life in the country, more typical of realism than of romanticism, crowd his one great novel, — the *Nouvelle Héloïse*, — as well as his *Confessions*. Bourgeois morality is exalted; commonplace people occupy the stage hitherto reserved for the quality; the social problems of the masses permit the occasion for the plot, for description and for moralizing. What might be termed a sociological tendency in literature, corresponding to the one in education and illustrative of one great aspect of Rousseau's "doctrine of the natural state," here receives a tremendous impetus.

EFFECT UPON SCHOOLS. — When inquiry is made for the influence of the "naturalistic" tendency on schools, the answer is not immediately forthcoming. So profound a movement does not have its effect immediately. The answer to this inquiry is secured only when the results of these later tendencies, especially of the psychological, are discovered. Immediately the effects were slight; ultimately they were so general as to defy measurement.

In France, where the influence of Rousseau on thought and sentiment was most profound, the old régime was so thoroughly intrenched in the social organization that change could come only as a result of a violent revolution. In addition to this the teachings of the *Émile* were looked upon, as, indeed, they were, as direct attacks upon the aristocracy

and upon the Church. Hence the vested interests and authority of both were invoked against it. Many of the *cahiers*,[1] or books of wrongs and grievances of the early Revolution, contain complaints and recommendations concerning schools. In general, a demand was made for a national plan for education. The work of the Revolution was chiefly to lay the basis for the institutional organization of education. Little was carried out, but much was projected. Only with certain phases, and those not the most important, can the influence of Rousseau be connected. Education was to be universal and to be free; but it was also to be largely political and social. Even this work, the discussion of which belongs more properly under the sociological tendency (p. 731), was largely checked by the Napoleonic reaction.

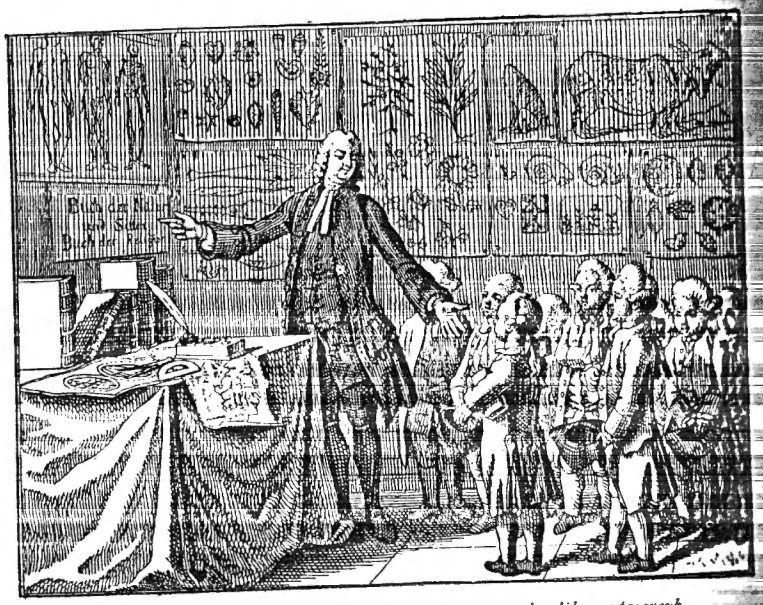
In England, where Rousseau's literary influence was very great and where his social ideas found many converts, his educational ideas received little support. True, they called forth considerable literature on the subject; but as England lacked any system of schools and as education, though controlled to a great extent by custom, was left almost wholly to the individual, there was little response in practice. The more restricted and more common-sense naturalism of Locke, combined as it was with the dominant disciplinary conception, recommended itself much more strongly to the matter-of-fact Briton. The one of these treatises on education of greatest originality was William Godwin's *The Enquirer*. There is nothing peculiarly original in this, — in fact, it does not approach the breadth of interest or of insight of the *Émile*. In simple essay form many of these principles of naturalistic education are set forth. The following paragraph gives, as nearly as a single statement can, the underlying thought of these somewhat scattered essays.

[1] Each of the three estates in every district drew up a *cahier;* the representatives of that estate from every district in the province compiled from these a provincial *cahier;* in the States-general a committee of each estate formed from these a general *cahier* for its own estate, and these were presented to the king.

"According to the received modes of education, the master goes first, the pupil follows. According to the method recommended, it is probable that the pupil should go first and the master follow. If I learn nothing but what I desire to learn, what should hinder me from being my own preceptor? The first object of a system of instruction is to give the pupil a motive to learn. We have seen how far the established systems fail in this office. The second object is to smooth the difficulties which present themselves in the acquisition of knowledge." The method appropriate to this has thus previously been described: "The most desirable mode of education, therefore, in all instances where it shall be found sufficiently practicable, is that which is careful that all the acquisitions of the pupil shall be preceded and accompanied by desire. The best motive to learn is a perception of the value of the thing learned. The worst motive, without deciding whether or not it be necessary to have recourse to it, may well be affirmed to be constraint and fear."

The Work of Basedow, Salzmann, and Campe in Germany was the immediate outgrowth of Rousseau's influence, and represents the first positive formulation in practice of those revolutionary ideas given only a negative form by Rousseau. But with these, as later with Pestalozzi and others, much of the positive formulation was subject to the same criticism that held in the case of the original statement of Rousseau. *Johann Bernard Basedow* (1723–1790) gave in his early career and in his irregular course as a student evidence of his erratic though talented nature and of his unstable character. Becoming professor of philosophy in a Danish Academy (1753) he was later transferred (1763), and, though yet salaried by the government, was soon compelled to give up all teaching on account of his unorthodox views. From 1763 he deluged Germany for many years with a succession of publications, and by his persistency succeeded in making his influence felt in spite of violent opposition on the part of all the traditional orthodox forces. For the first few years he was chiefly interested in reform in philosophical and religious teaching;

most of his publications were of a religious character, propagating Rousseau's idea of natural religion and morality. The one of his books most violently resented was *Methodical Instruction, both in Natural and Biblical Religion.* Coming under the influence of the *Émile*, from 1767 he directed his attention wholly to educational reform. In 1768 he issued *An Address to the Friends of Humanity and to Persons in*



A "NATURALISTIC" SCHOOL, FROM BASEDOW'S *Elementarwerk.*

Power, on Schools, on Education, and its Influence on Public Happiness, which contained a plan for a complete system of reformed elementary education. Advertised through many preliminary publications, supported by subscriptions from all parts of Europe from royalty and commonalty alike, this *Elementarwerk* finally appeared in 1774. At the same time was published his *Book of Method for Fathers and Mothers of Families and of Nations.* This *Elementary Work*, for children, which appeared in four volumes with one hundred plates of illustrations, was a combination of the ideas of Comenius, Bacon, and Rousseau. It was the first step since the time of Comenius to improve the character of the work of the school through the preparation of appropriate text-books and the radical revision of the subject-matter of school work. It aimed first of all to give a knowledge of things and of words quite similar to the encyclopedic plan of the seventeenth-century reformer. This knowledge was primarily a knowledge of natural phenomena and forces; in the next place, a knowledge of morals and of mental phenomena; and, lastly, of social duties, of commerce, of economic affairs. In these latter the Rousseau ideas were approximated. The "natural methods" of Rousseau appeared as the second great feature of the book. Thus through the "method of experience" children were to be taught to read, both the vernacular and Latin, without weariness and without loss of time; and in a similar way the truths of religion and of morality were to be imparted without the accompanying prejudices, narrowness, and formalism of existing religious teaching.

If we are to accept the estimate of the historian of the times, these volumes were soon in almost every home of the middle and upper class in Germany, just as were the *Émile* and the *New Héloïse* of Rousseau in the preceding decade. As Basedow aimed to reform private as well as public education, the effect of this propaganda was profound, even if the character of the education imparted could not be so characterized.

Basedow and his followers, among whom Salzmann and Campe were the most important, soon produced a wholly new literature for children. As for the first time there was an education designed wholly for children, not controlled by the needs, character, and interests of adults, so also this was the first literature designed for children. Concerning the work of these men Schlosser,[1] the great German historian of the eighteenth century, remarks: —

[1] *History of the Eighteenth Century*, Vol. II, pp. 203–204.

"They and their successors and imitators soon deluged Germany with a silly literature for children, and sought to bring up little children in such a way as to make grown people into children. They were zealous opponents of both Jesuitical and pietistic education, because they, as well as the Jesuits, understood how to obtain the favor both of children and parents. They put an end indeed to all pedantry, but we must ascribe to them and their plans the sauciness and pertness of that all-knowing and therefore ignorant and presumptuous generation of youths, who have been superficially educated by them, and of whom we have so many examples."

It is not to be understood that Basedow's work was all positive and constructive. The greater part of it, especially his early work, was critical and destructive; and much that aimed to be constructive was ill-founded, erratic, overpretentious, superficial, and hence ineffective. Basedow himself was even less fitted than Rousseau to be an educational reformer. It is sufficient to say of him personally that he was vulgar, immoral, intemperate, given to the vices of the peasantry from which he sprang without possessing their fundamental virtues; above all it cannot be doubted that he was in some respects an impostor and a mountebank. On the other hand he possessed an intellectual ability, a definite aim to reform the educational practices of his time, a tenacity of purpose worthy of the cause in which he enrolled himself, a rationalistic insight into affairs, and a power of arousing enthusiasm in others. Notwithstanding these defects and the fact that he was totally unable to carry out his own reform plans because he was so unpractical, Schlosser states that "he succeeded in effecting a complete change in the whole nature of education and instruction in Germany, which Rousseau was able to accomplish neither in his native country nor in France."

The Philanthropinum.[1] — In 1774 was founded the long-

[1] A concrete description of the work of the Philanthropinum, translated from Von Raumer, is to be found in Barnard's *German Teachers and Educators*, p. 462.

heralded institution, erected to illustrate the principles of reformed education and termed the Philanthropinum. This institution at Dessau was the parent of many others, more or less short lived, but existing long enough to exert a profound influence on the education of children throughout the Teutonic countries. It is said that educational institutions sprang up everywhere like factories. After the final overthrow of the Philanthropinum, through defective management, "the teachers from Dessau were scattered about in all parts of Germany, and each applied Basedow's ideas according to his own plan, they erected institutions, and converted what had been previously an honorable office into a trade."[1]

The fundamental idea of the reform was "education according to nature," which was interpreted to mean that children should be treated as children, not as adults; that languages should be taught by conversational methods, not through grammatical studies; that physical exercises and games should find a place in the child's education; that early training should be connected with "motion and noise," since children naturally love these; that each child should be taught a handicraft, for reasons partly educational, partly social; that the vernacular rather than the classical languages should constitute the chief subject-matter of education; that instruction should be connected with realities rather than with words.

The objects of the institution were to educate the rich and poor together, to give the former a proper natural education for social activity and leadership and to prepare the latter to teach. Under more competent hands the institution continued until 1793; meanwhile, many similar institutions were under way, two or three of which were widely influential. The strong emphasis upon the training of teachers reacted favorably upon the entire German school system.

[1] Schlosser, Vol. II, p. 205.

The introduction of "turning, planing, and carpentering" into the regular course of study of the Philanthropinum for educational purposes is the earliest practical recognition of the purely educational value of positive character to be found in manual work. School instruction from objects and from pictures here first found an elaboration in actual school work. The connection between the out-of-door life and the process of instruction was made more intimate. The principle that all instruction has a moral because a practical outcome, and that formal moral instruction is of little value when not thus connected, was embodied in their work.

From the later pages of this book it will be recognized that all of these ideas are worked out more explicitly by later reformers, especially Herbart, Pestalozzi, and Froebel. However crudely they were realized in the work of Basedow, his work was of sufficient merit to command the approval of Kant, while the general ideas and the man himself received the commendation of Goethe. Though Basedow was without question much of a charlatan in his educational work, as he was also a drunkard and an impractical visionary, at the same time his work undoubtedly initiated the reform movement in the German schools. His methods of instruction in geography, physics, nature study, history, geometry, and arithmetic were as revolutionary and as fruitful as those of Pestalozzi, and his application of them was quite as successful. But since the later reformer came to a clearer consciousness of the principles underlying the new, and gave the Rousseau influence the particular tendency in regard to method along which it afterward developed, further considerations of the movement must be given in that connection. However, it is well to remember that the common practice of attributing the reform in education throughout the Teutonic countries to Pestalozzi is an erroneous one, and that at an earlier period Basedow had exerted as profound an influence toward practical reform as did Pestalozzi a generation later.

The latter reformer but continued along slightly different lines the movement initiated by Basedow and popularized by his followers.

Joachim Heinrich Campe (1746–1818) was the leading follower of Basedow, his successor at Dessau, the founder of a philanthropinum at Hamburg, and the author of a great number of works embodying the idea of the new education. His *Robinson der Jüngere* (1779) was the model for Wyss' *Swiss Family Robinson*, familiar to children of every land. The didactic character, the penchant for information, especially for that of natural phenomena, the familiar moralizing, the religious coloring, one might almost say the cant, that pervades this little volume is characteristic of the entire movement. Among Campe's works are many for teachers. He also translated the works of Locke and Rousseau as a basis for the educational reform movement.

Christian Götthelf Salzmann (1744–1811) was, next to Basedow and Campe, the most prominent of these exponents of the new education and a most voluminous writer on education. Most of these writings sought to combine a strong religious and moralizing tendency with the naturalistic tendencies of Rousseau. As with Campe, Salzmann, in his attempt to embody these ideas in a new educational material, produced many popular works for children.

These men were followed in turn by a multitude of minor educators, many of them pretenders, who sought to take advantage of this serious reform movement, merely for their own advantage. As the philanthropinist movement was an eminently practical one, this was most easily accomplished.

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TOPICS FOR FURTHER INVESTIGATION

1. What ideals of education can you discover in Lord Chesterfield's *Letters to his Son?*

2. What agreement is there between the educational ideas of "the Enlightenment" and those of Montaigne?

3. What parallels and what connections can be discovered during the eighteenth century between the development of either philosophical, religious, or political thought and educational thought?

4. In their educational bearings what similarity is there between "the Enlightenment" and the fifteenth-century Renaissance?

5. What justification can you find in the *Émile* and in the other writings of Rousseau for this threefold interpretation of the naturalistic doctrine?

6. What concrete evidences and results of each aspect of naturalistic education are to be found in the *Émile?*

7. To what extent is Rousseau correct in his contention that education should be negative?

8. What defects can you point out in Rousseau's ideas of moral education?

9. What are the details of Rousseau's ideas of the education of women, and wherein do they controvert his general educational principles?

10. To what extent did Jefferson and the early American statesmen owe their ideas on education to Rousseau; or to what extent, at least, is there a similarity between them?

11. What similarity and what differences of views between Rousseau and Locke are to be found? Between Rousseau and Montaigne?

12. What basis does Rousseau offer for the doctrine of self-activity emphasized by Froebel? For the doctrine of interest?

13. To what extent are Rousseau's principles of education applicable at the present time?

14. Which of Rousseau's ideas concerning education would be rejected now?

15. Give a statement in positive form of the ideas stated negatively by Rousseau.

Chronological Table of Educational Development during the Nineteenth Century

Political Events and Personages	Literary Men, Religious Leaders, etc.	Scientists and Philosophers	Educational Writings and Educators	Educational Events
1800.	Goethe 1749 1832	Hegel 1770–1831	Pestalozzi, *How Gertrude Teaches* . 1801	1803. Sunday-school Union f.
1804. Bonaparte emperor.	Wordsworth 1770-1850	Cuvier 1769–1832	Jacotot 1770–1840	1805. Public School Society of New York.
1807. Class distinctions and serfdom abolished in Germany.	Byron 1788–1824	Comte 1798 1857	Herbart, 1776–1841	1806. University of France f.
1814. Bonaparte at Elba.	Scott 1771–1832	Faraday 1791–1867	Froebel 1782 1852	1806. Neef introduces Pestalozzi in United States.
1815. Congress of Vienna.	Coleridge 1772–1834	Hamilton 1788–1856	Thomas Arnold 1795–1842	1808. First treatise on education published in United States.
Frederick William 1797–1840	Irving 1783–1859	Liebig 1803–1873	Rosmini 1797–1855	1809. University of Berlin founded.
1810–1830 Freedom of South American States.	Cooper 1789–1851	J. S. Mill 1806–1873	Herbart's *General Pedagogics*, 1806	1808–1811. Von Humboldt head of German schools.
1817. Wartburg demonstration for freedom.	Emerson 1803 1882	Herbert Spencer 1820–1903	Horace Mann 1796–1859	1804–1844. Fellenberg's School at Hofwyl.
1830. July Revolution in France.	Thackeray 1811–1863	Buckle, *History of Civilization* 1857	Rosenkranz 1805–1879	1811. National Society for Promotion of Ed. of the Poor.
1830. Reform bill in England.	Dickens 1812–1870	Darwin, *Origin of Species* 1859	George Combe 1788–1858	1813. First State superintendent of ed. in United States (N.Y.).
1833 Slavery abolished in British colonies.		Agassiz 1807–1873	Froebel, *Education of Man* . . . 1826	1814. British and Foreign School Society.
1846. Corn laws repealed.		Darwin 1811–1882	Spencer, *Essay on Education*, 1861	1818. Lancaster comes to U.S.
1848 French Revolution.		Wallace 1820	Alexander Bain 1818–1887	1821. First legislative aid for education of women (N.Y.).
1851. New French Empire.			Henry Barnard 1811–1900	1821. First High School (Boston).
1854. Crimean War.			Stoy . 1815–1885	1827. All schools free in Massachusetts.
1870. Franco-Prussian War.			Otto Frick 1832–1892	1835. Cousin's *Report* published in United States.
1871. German Empire founded.			Tuiskon Zeller 1817–1883	1837. Mount Holyoke seminary for women.
1871. The Union of Italy.			R. H. Quick 1831–1891	1837–1849. Mann Secretary of Mass Bureau of Ed.
				1837. First kindergarten.
				1837. First city superintendent of schools.
				1838. First State normal school in United States (Mass.).
				1843. School Board in New York City.
				1850. Kindergartens forbidden in Germany.
				1860. First kindergarten in U.S.
				1861. First Ph.D. in U.S.
				1862. Morrill land grant for agricultural and technical education.
				1867. Elective system at Harvard.
				1867. United States Commissioner of Education.
				1867. All State schools free in New York.
				1869. English Endowed School Act.
				1870. Elem. Ed. Act in Eng.
				1873 Kindergarten part of public school (St. Louis).
				1890. Berlin School Conference.
				1896–1897. University of France reorganized.

CHAPTER XI

THE PSYCHOLOGICAL TENDENCY IN EDUCATION

THE GENERAL CHARACTERISTICS. — These three tendencies, the psychological, sociological, and scientific, growing out of the thought of the later eighteenth century, developed together and are not always clearly distinguishable in time, in place, or in personnel. So far as its full effect on schools was concerned, the psychological tendency, relating chiefly to educational method, had some precedence in time over the scientific tendency, relating chiefly to subject-matter, and over the sociological, relating both to subject-matter and to organization. As the direct outgrowth of the naturalistic tendency, the psychological tendency has the logical claim to first consideration.

In the summary of the general educational results of the naturalistic movement, it will be recalled that all those influences, save possibly one, related to the method of education as method grows out of the nature of the child. The psychological tendency was simply the clarifying and developing of these positions; for certainly the basal thought of the psychological tendency was that education is not an artificial procedure, by which one comes into possession of a knowledge of the forms of language and literature or of formal knowledge of any sort, but that it is a natural process of growth from within, of an unfolding of capacities implanted in our nature. In other words, education was considered as a development, or organic growth, which could be hindered or helped by the methods in which the natural capacities or activities were treated. The great difference between the

Chronological Table of Educational Development during the Nineteenth Century

Political Events and Personages	Literary Men, Religious Leaders, etc.	Scientists and Philosophers	Educational Writings and Educators	Educational Events
1800.	Goethe 1749 1832	Hegel 1770–1831	Pestalozzi, *How Gertrude Teaches* . 1801	1803. Sunday-school Union f.
1804. Bonaparte emperor.	Wordsworth 1770-1850	Cuvier 1769–1832	Jacotot 1770-1840	1805. Public School Society of New York.
1807. Class distinctions and serfdom abolished in Germany.	Byron 1788–1824	Comte 1798-1857	Herbart, 1776-1841	1806. University of France f.
1814. Bonaparte at Elba.	Scott 1771-1832	Faraday 1791-1867	Froebel 1782 1852	1806. Neef introduces Pestalozzi in United States.
1815. Congress of Vienna.	Coleridge 1772-1834	Hamilton 1788–1856	Thomas Arnold 1795-1842	1808. First treatise on education published in United States.
Frederick William 1797-1840	Irving 1783–1859	Liebig 1803–1873	Rosmini 1797–1855	1809. University of Berlin founded.
1810-1830 Freedom of South American States.	Cooper 1789–1851	J. S. Mill 1806-1873	Herbart's *General Pedagogics*, 1806	1808–1811. Von Humboldt head of German schools.
1817. Wartburg demonstration for freedom.	Emerson 1803 1882	Herbert Spencer 1820-1903	Horace Mann 1796–1859	1804–1844. Fellenberg's School at Hofwyl.
1830. July Revolution in France.	Thackeray 1811–1863	Buckle, *History of Civilization* 1857	Rosenkranz 1805-1879	1811. National Society for Promotion of Ed. of the Poor.
1830. Reform bill in England.	Dickens 1812–1870	Darwin, *Origin of Species* 1859	George Combe 1788–1858	1813. First State superintendent of ed. in United States (N.Y.).
1833 Slavery abolished in British colonies.		Agassiz 1807–1873	Froebel, *Education of Man* . . . 1826	1814. British and Foreign School Society.
1846. Corn laws repealed.		Darwin 1811–1882	Spencer, *Essay on Education*, 1861	1818. Lancaster comes to U.S.
1848 French Revolution.		Wallace 1820	Alexander Bain 1818–1887	1821. First legislative aid for education of women (N.Y.).
1851. New French Empire.			Henry Barnard 1811–1900	1821. First High School (Boston).
1854. Crimean War.			Stoy . 1815–1885	1827. All schools free in Massachusetts.
1870. Franco-Prussian War.			Otto Frick 1832-1892	1835. Cousin's *Report* published in United States.
1871. German Empire founded.			Tuiskon Zeller 1817-1883	1837. Mount Holyoke seminary for women.
1871. The Union of Italy.			R. H. Quick 1831–1891	1837–1849. Mann Secretary of Mass Bureau of Ed.
				1837. First kindergarten.
				1837. First city superintendent of schools.
				1838. First State normal school in United States (Mass.).
				1843. School Board in New York City.
				1850. Kindergartens forbidden in Germany.
				1860. First kindergarten in U.S.
				1861. First Ph.D. in U.S.
				1862. Morrill land grant for agricultural and technical education.
				1867. Elective system at Harvard.
				1867. United States Commissioner of Education.
				1867. All State schools free in New York.
				1869. English Endowed School Act.
				1870. Elem. Ed. Act in Eng.
				1873. Kindergarten part of public school (St. Louis).
				1890. Berlin School Conference.
				1896–1897. University of France reorganized.

Rousseau ideas and the psychological principles was that the former were mostly negative and destructive; while the psychological tendency was the effort to state these ideas in positive form and to give the influences a concrete formulation in actual school procedures. In one respect the central thought of the psychological tendency, as expressed by its leading exponents, was a radical advance beyond that of Rousseau. The naturalistic tendency had opposed most violently the dominant education of the school, whose spirit and purpose were represented in the disciplinary conception of education. The psychological tendency, on the other hand, sought a reconciliation of the conflict between the old "education of effort" and the new "education of interest." But since the old remained intrenched for many decades of the nineteenth century, and the work of the new was to destroy it by conflict, it was this latter aspect of conflict rather than that of reconciliation that was ever most prominent. The fact that the rank and file of the new educators — those that followed the lead of the few great exponents without having their grasp of the problem — emphasized almost exclusively the importance of *method*, and in this connection the importance of interest also, led to emphasis upon conflict rather than upon reconciliation. For while the philosophical statement of theory by the leading exponents of the new recognized the importance of effort, it was in regard to details of method that the conflict was most apparent and seemingly most irreconcilable. Having in mind, then, simply the historical aspect, and that chiefly as it affected the schools previous to the last twenty years, one may say that the psychological movement, as here limited, continued the period of conflict. The attempt at reconciliation becomes prominent in the contemporary aspects of thought and practice, in which the psychological tendency becomes fused with other nineteenth-century tendencies, and is to be considered in the concluding chapter.

However profound may have been the effort of Herbart and Froebel to effect this reconciliation, in the popular conception there was an irreconcilable opposition. A brief extract, contrasting the main ideas of these two views, taken from a review of one of Pestalozzi's works by Caroline Frye in her *Assistant of Education*,[1] will serve as an illustration.

"Of the second work, Pestalozzi's *Letters on Early Education*, we have little to say. A book written for the inhabitants of Mars, if there are any, would almost as much come under our task of criticism. If there be a people between the Alps, in the bosom of whose offspring there is an innate principle of faith and love, that needs only to be cultivated and cherished by the sacred power of innocence, to produce pure morality and exalted devotion, this book belongs to them. It need not have been put into English, or any language into which the word of God has been translated; for it belies it utterly. We have no such children to educate, and therefore the book is useless to us. I could not help comparing the following passage, one among many such, of Pestalozzi — 'I would, in the first place, direct your attention to the existence and the early manifestation of a spiritual principle, even in an infant mind. I would put in the strongest light that there is in the child an active power of faith and love; the two principles by which, under the divine guidance, our nature is made to participate in the highest blessings that are in store for us. And this power is not, as other faculties are, in a dormant state in the infant mind. While all other faculties, whether mental or physical, present the image of utter helplessness, of a weakness which in its first attempts at exertion only leads to pain and disappointment, that same power of faith and love displays an energy, an intensity, which is never surpassed by its most successful efforts when in full growth' — we could not help comparing with curiosity this dream of Socinianism, with some sentences from a Christian author[2] we happened to take up on the same day: — 'No sooner do children begin to act at all, but we discover how universally sin has pervaded all the sources of intelligence. There is a greater pleasure in reflecting on the images of crime than

[1] Vol. IX, p. 363. [2] Newham, *On the Principles of Education.*

on the character of piety; the conscience is enfeebled and oppressed; its voice is stifled and its actions perverted; the imagination delights to revel over scenes of iniquity, and is difficultly carried forward to anticipations of future happiness, glory, and praise: the will is enslaved by selfishness; the imitation of all that is wrong is most easy, — of all that is right is most onerous, — the judgment is prone to perpetual error; the evil passions grow and flourish, while the good are educated with difficulty.' The Christian mother will compare these opposing principles with the testimony of Scripture and of her own heart, and will have no difficulty in deciding in which author to study the principles of education."

The emphasis upon interest and the conception that education is but a development of germs, or powers, implanted in the child's nature, formed but part of a large thought which constituted an essential of this tendency. The idea that education should be according to nature, which constituted an aspect of the thought of the sense-realists as well as that of Rousseau, now took more definite shape as a newer conception of human nature tends to take the place of the old one that had prevailed so long. This newer conception in education was closely bound up with that which at the same time was taking shape in philosophy and in science. Educationally "nature" now came to indicate the nature, or mind, of man; and the principles upon which education was to be based were now sought for in the principles of activity and of development of the human mind. It is true, however, that the scientific formulation of these principles of psychology, as based upon an accurate scientific knowledge derived by observation and experimental method, was hardly begun before the middle of the nineteenth century, and that the application of these to education is yet largely the work of the future; but the movement itself was begun in the early part of the century.

However much the Middle Ages had modified the psychology of Aristotle, no advance was made until the opening

of the modern philosophical and scientific movement, which was the source of the educational movement described under the term sense-realism. Descartes, and after him Hobbes and Spinoza, had emphasized the relationship between physical and mental processes. While this was the key to the solution of the psychological problems, its general significance was not grasped until later. Locke, who was not primarily a psychologist, attempted to show that all knowledge is due to the data given by sense-perception and reflection. This again emphasized the dependence of the psychical upon physical processes and the importance of training of the sense organs; but its chief immediate influence was that upon the associative theory of knowledge, which practically controlled throughout the eighteenth century. With the opening of the century there came a marked development of the idea of psycho-physical parallelism, due especially to Herbart and Hartley. Herbart investigated the origin and development of space and time relations — aspects of the mind's activities previously held innate — as connected with sense perceptions and physical processes. Herbart mentioned experimentation and experience along with metaphysics and mathematics as the three sources of knowledge of the mind. Yet, so far as his dominant attitude is concerned, he is yet classed with the old psychologists, who based their interpretation of mental phenomena on metaphysical grounds. But in completely throwing over the old psychology of the faculties, he is held to be the founder of the new. So in Herbart, who played so important a part in this educational development, psychology finds the dividing line between the old and the new. Pestalozzi's gropings after these principles of education, founded in a new and truer conception of the human mind, were purely empirical. Even the interpretations reached by Herbart have had to be reformulated — many of them to be entirely rejected. But the significant

truth reached was the conviction that this more accurate interpretation of human nature, based upon a careful scientific study of the mind, was now possible, and that an adequate conception of education and any formulation of more fruitful processes of instruction must be based upon the results of such study. To this general tendency, vague and indefinite as it was in its application to education, we have here given the term psychological. The most that can be essayed in this limited space is an account of what those of the leading innovators in this line attempted.

One further characteristic of this tendency which, as just seen, may not be quite adequately characterized by the term psychological, is that it aimed at improvement in the character of education; whereas the complementary movement, which in the same general way may be characterized as sociological, aimed at the more general diffusion of education. The interest of the men included in this group, or — more accurately — the modifying influence of these tendencies included under this term, was directed chiefly to the improvement in the method of instruction, in the spirit of the schoolroom, in the character and training of the teacher, and in the popularization of a broader and truer conception of the nature of education.

Thus there followed a sympathy for childhood, a knowledge of the child, of the child mind, of the child's interests and abilities, that were wholly unknown in previous periods and entirely absent from the schoolroom in all previous ages. While the actual knowledge of the child mind was at first slight and for a long time was gained by empirical means alone, yet educational practice came to be based upon a study of childhood, and the theories concerning education came to be formulated from data gathered during actual contact with the child.

Consequently, the chief interest in education was diverted to an entirely different phase of the educational process. For

many centuries, it will be recalled, the interest in education was in the secondary and higher stages. All the early reformers, the realists as well as the humanists, thought especially of the acquisition of foreign languages and literature as the chief work of education. Little or no attention was given to the elementary stage. Comenius, it is true, wrote of infant and vernacular schools, but he supervised and wrote text-books for the Latin schools. The chief immediate interest of almost all those participating in this new tendency, notwithstanding the fact that Herbart made use of the Greek and Latin for his educational instruments, was in the elementary stage. Pestalozzi's ideas and practices are limited to work in reading in the vernacular, to writing, and to arithmetic. While Froebel wrote concerning the philosophy of education as a whole, his practical work and influence was confined to the earliest stages. From that time to this the formulation of educational theory and the improvement in educational practice has, with few exceptions, related primarily to elementary education. Since most educational principles have been formulated with the problems of elementary education only in mind, and since many such principles have been projected, without sufficient adaptation, to apply to higher stages, when applicable in the given form only to those conditions from which deduced, this condition has often resulted in confusion.

A fundamental conception of the psychological tendency — that education is the process of the development of the individual — accorded with the individualizing tendencies of the later eighteenth and first half of the nineteenth century, and with the ideas of social progress, of biological development, and of evolution in all its scientific and philosophical implications, that during the same period were becoming clarified. Though stated in quite different terms now, the thought and even the form accepted for two or three generations was that given by Pestalozzi; namely, that education was "the har-

monious development of all the powers of the individual." The same general idea, in different terminology, due to more accurate knowledge of psychology, is now expressed in terms of "organization of acquired habits of action or tendencies to behavior." This conception of education in terms of individual development is an essential feature of the psychological conception of education, and is one great contribution of the late eighteenth and the early nineteenth century to education. Nevertheless, this conception has its sociological significance and coincides with the tendency to universal education in one respect; namely, if education is the process of development of the individual, if it is at basis a natural rather than an artificial process, it is a process through which all human beings go and a process from the regulation and direction of which all can profit. Consequently there results an emphasis upon popular and universal education that was not possible so long as the chief interest was in higher education, and so long as education was the process of giving to the child or forcing on the child the ideas, emotional reactions, and activities of adults.

PHILOSOPHICAL ASPECT OF THE MOVEMENT.— Closely related to the psychological tendency was the philosophical. So closely related in fact that instead of two movements the psychological movement may be considered as possessing two aspects, one practical and concrete, which through experimentation attempted to work out general principles, the other metaphysical in its characteristics and aiming at the formulation of the logic of education. It is only the former that can be considered here, since the men representing the practical movement — Pestalozzi, Herbart, Froebel — but expressed the dominant ideas gained from the thought movement typified by Kant, Fichte, Schelling, Schleiermacher, and Hegel. As occupants of chairs of philosophy, these men found it part of their duty to lecture on education, yet

with most it was of subsidiary interest. The one man who represented both movements was Herbart. There are many of less prominence in both groups, especially in more recent times, whose writings, though of value, and whose influence, though of importance in their respective countries, cannot be discussed here.

The Philosopher Kant (1724–1804) had as a part of his scholastic duties the delivering of a course of lectures upon education. The notes of these were published in 1803 under the title *On Education* (*Ueber Pädagogik*). Much in these was carried over from his philosophy and ethics; much was common to the thought of the times. In fact, his work reads like a combination of the familiar ideas of Locke and Rousseau, in which the extreme naturalism and freedom of the French emotionalist is tempered with much of the discipline of the English rationalist. The groundwork of the treatise is given in the first paragraph: "Man is the only being who needs education. For by education we must needs understand nurture (the tending and feeding of the child), discipline and teaching, together with culture. According to this, man is in succession infant (requiring nursing), child (requiring discipline), and scholar (requiring teaching)." While the germs of development are in nature, it is only through education that they are perfected. "There are many germs lying undeveloped in man. It is for us to make these germs grow, by developing his natural gifts in their due proportion, and to see that he fulfills his destiny." Thus is suggested one of the earliest harmonizations of the education of interest (nature) and the education of effort (discipline). While Kant follows Rousseau in insisting on the education of the child for himself, yet he maintains that his education must be "not for the present, but for a possibly improved condition of man in the future." The treatment of the subject divides into four topics; through education man must be made subject to discipline, must be supplied with

culture, endowed with discretion, and be made moral. Through discipline the unruliness of nature is subjected to reason. Through culture, consisting of information and instruction, ability is brought out which later may be applied to various ends determined by moral and practical education. Through discretion one is enabled to conduct himself with propriety and refinement in society. Through moral education one's disposition is so trained that he chooses only good aims in life. This latter, so neglected in education, is in reality its highest end.

Johann Karl Friederick Rosenkranz (1805–1879), the successor of Kant and Herbart in the philosophical chair at Königsberg, published a *Philosophy of Education* in 1848, which was largely an interpretation of the philosophy of Hegel in educational terms. Man's true nature is his ideal nature, found at birth only in germ but developed by a process of education. This process consists in the putting away or suppression of his first or animal nature by a process of "estrangement" and of gradual approximation to his ideal nature by an assimilation of those things which belong to culture. Education is a process of "self-estrangement" and of "identification" with the self of that which was previously foreign and existed only in the ideal. Through the application of this principle to various phases, a philosophy of moral and religious as well as intellectual education, of discipline, of method, and of the history of education is worked out.

The interest felt in the formulation of the problems of education by this group of men is largely of a theoretic character; the practical bearing is given through those mentioned in the other group.

The Phrenological Movement. — One other aspect of the psychological tendency, in its earlier form, needs to be mentioned at least on account of its historical association. This was the widely popular "science of phrenology," now so discredited that its advocacy is immediately condemned as

charlatanism. In its earlier stages, however, this movement had a far more respectable following and an educational influence of no mean character. The major premise of the doctrine of the phrenologists is the belief that all nature is governed by law and that there is a close relationship between the physical and psychical; its minor premise, that many mental functions have localized brain centers. Both are accepted by present science. Modern investigators have, however, rejected its conclusion that any mental trait is proportionate in strength to the size of a given identified portion of the brain organism and that this importance is indicated by external conformations of the skull. That it was no charlatanism in its day is indicated by the men who were prominent leaders in the movement and by its educational influence. Lavater and Spurzheim in Germany, George Combe in England, Horace Mann and Fowler in the United States, were its chief exponents. In Germany the movement soon coalesced with the more scientific psychological movement; in England it realized itself in the demand for scientific education; while in the persons of Fellenberg, Combe and Mann, in their respective countries, it revealed its practical importance. As the "science of mental faculties" it was an extremely empirical and practical psychology that appealed to many men with little scientific training.

THE PESTALOZZIAN MOVEMENT. **Character and Significance of his Work.** — It must be understood at the outset, that much more is included under this subject than the personal work and influence of Pestalozzi; for it is a very common error to overestimate the importance of this one reformer in the history of education, and a gross exaggeration to attribute to him the entire educational reform movement of the early part of the nineteenth century. On the contrary, Pestalozzi but made positive and concrete the negative and general educational principles enunciated by Rousseau; and,

as we have seen, there were many others, notably Basedow and his group, who were successfully engaged in the same work. Pestalozzi himself says of these: "Ignorant and impractical as I was, but with my power of comprehension and simplifying, I was at the same time the lowest hedge schoolmaster and also reformer of instruction — and this in an age in which, since the epochs of Rousseau and Basedow, half the world had been set in motion for this purpose." On the other hand, the ideas and practices generally grouped under his name are largely due to the work of his assistants and of the innumerable teachers of succeeding generations who have labored along the lines first indicated by him. No one has been more insistent than Pestalozzi that his ideas were not realized by himself or by his assistants, and that it was for the future to work them out in reality. He it was who first made clear and forced upon the public the position that the whole problem of education was to be considered from the point of view of the developing mind of the child. This view was not wholly original with him, for it had been suggested by others; but he first made the schoolroom world conscious of its importance, and therein lies his greatness. Around him centered the controversy concerning the new point of view of method in education, and to him and his followers was due the initial propaganda. To his co-laborers should be credited much of the concrete statement of the new ideas; to his successors, including the great number of unnamed but earnest and clear-sighted teachers everywhere, is due the perfecting of them. Later educational theorists, especially the two considered in this chapter, possessing all of the practical insight of Pestalozzi, with fuller philosophical penetration than his, together with broader knowledge, have built upon his work a more extensive and stable structure of educational doctrine than could the Swiss reformer.

In his writings there are many blunders, — there must be some for there are many contradictions; and the man who

boasted that he had not read a book in thirty years, in an age when all advance in thought was crystallized in literature, could hardly avoid some error. His practices were full of absurdities, — how otherwise could he have explained the many failures in the application of ideas held to be the only correct ones? The desire to be novel at every point in the rejection of the old school routine led to many mistakes and eccentricities. Von Raumer, the historian of education and a student in the Institute at Yverdun, remarks: "The source of the internal contradiction which runs through the life of Pestalozzi was, as we have seen from his own confessions, the fact that in spite of his grand ideal which comprehended the whole human race, he did not possess the ability and the skill requisite for conducting the smallest village school." But no one has been more just than Pestalozzi himself in recognizing the limitations of his work, in realizing that the particular form which he gave to his ideas was but tentative, and that these great ideas even were possessed in rudimentary form only. In the preface to his work on method, written twenty years after the appearance of the first edition, he says: "If these letters [*How Gertrude Teaches*] may be considered in some respects as already answered and partly refuted by this time, and thus appear to belong to the past rather than to the present, yet if my idea of elementary education has any value in itself and is fitted to survive in the future, then these letters, so far as they throw light on the way in which the germ of the idea was developed in me, may have a living value for every man who considers the psychological development of educational methods worthy of his attention."

The point made emphatic by the reformer is often overlooked by his expositors and disciples. The significance of our study of Pestalozzi in connection with the general psychological tendency in education is not in the finality of his views, but in that which he states, — that here we may see

the development of the germs of modern educational ideas. Even in an examination of the practical work of Pestalozzi it is evident that the embodiment of his ideas was very imperfect and his success in their formulation only partial. Here again we may listen to his own appreciation of his work and that of his co-laborers. Surveying his work from near the close of his life, he remarks: "But the cry 'We can do it,' before we could; 'We are doing it,' before we did, was too loud, too distinct, too often repeated, partly by men whose testimony had a real value in itself and deserved attention. But it had too much charm for us; we made more of it than it really said or meant." And in another place: "The highest attainment (in popular education) can only be reached by means of a finished art of teaching and a most perfect psychology; thus securing the utmost perfection in the mechanism of the natural progression from confused impressions to intelligent ideas; this is in truth far beyond my powers."

In the face, then, of his lack of any philosophical and organizing ability, his lack of accuracy, of consistency, of persistency, and of practical success, it becomes necessary to restate the basis of his importance in educational history. What he did do was to emphasize the new purpose in education, but vaguely perceived, where held at all, by others; to make clear the new meaning of education which existed in rather a nebulous state in the public mind; to formulate an entirely new method, based on new principles, both of which were to receive a further development in subsequent times, and to pass under his name; and, finally, to give an entirely new spirit to the schoolroom.

The significance of much of Pestalozzi's work was that it was experimentation now substituted for tradition as a basis for educational work. Hence its value lies, not in any particular form of experiment, but in the final results attained; or, since we are even yet far from finality, in principle or practice still to be attained. In much, then, Pestalozzi was a learner

rather than a teacher. "My views of the subject," said he, "came out of a personal striving after methods, the execution of which forced me actively and experimentally to seek, to gain, and to work out what was not there, and what as yet I really knew not." Consequently, more than in the case of any other man in the history of education, it is necessary to study his life and experience in order to understand his ideas, for these are not always the same, but develop. They are the direct outgrowth of the experimental life which he led.

Life and Works. — Heinrich Pestalozzi (1746–1827) was raised in a fatherless family, where the sympathy, watchful care and loving insight of a mother furnished a training in place of that which might have come from the more masculine virtues of a father or from the world at large, and gave to him his purpose of introducing into the school the ideal of home relationships and to bring about the improvement, even the regeneration, of the masses of the people. As he said, "I will put skill into the hand of the mother, into the hand of the child, and into the hand of the innocent; and the scorner shall say no more [of the improvement of the masses] — 'It is a dream.'"

He was early influenced by the naturalistic movement, especially by the *Émile*, and became an ardent revolutionist, as all humanitarians then must have become. Abandoning in turn his preparation for the ministry, for the law and for public service, he entered finally upon an agricultural life, with the double purpose of improving a waste tract of land through new methods of cultivation and of living a life in accord with the prevalent naturalistic ideals. Practical success in these lines he failed to obtain; but the failure gave him an opportunity for trying an experiment even nearer his heart's desire, the founding of a philanthropic institute for destitute children. Meanwhile he had been experimenting in the attempt to bring up his one child according to the ideas of the *Émile*. Experience led him to see many of the

deficiencies as well as the excellencies of this negative treatise and put him on the road toward his life's great task, in the positive formulation of these ideas. His first educational work, entitled *A Journal of a Father*, — one of the earliest examples of child study, — was a further result of this experience.

The philanthropic venture mentioned above was an educational experiment as well, for it was but an application of the doctrine advocated by the naturalists, that the character of individuals is shaped by their environment. Reduce this to as nearly natural conditions as possible, they held, and character will be formed or developed. So Neuhof became a refuge for some score of beggar children, or children of poor parents who gave them no care. The development of the factory system of labor had already begun to accentuate the economic division of the people and to produce a poverty-stricken class, whose children were much more neglected than those of the peasantry and of whom no care was taken save by the poorhouses or charitable institutions that but increased the moral and industrial evils. From 1775–1780 Pestalozzi conducted what was probably the first "industrial school for the poor." The children were engaged in raising special farm products, in spinning and weaving of cotton and in other occupations. While so engaged they also spent some time in reading and committing passages to memory and especially in arithmetical exercises. There was no real connection between the occupations and the intellectual activities, but Pestalozzi demonstrated at least that the two could go on together. The combined functions of manager, farmer, manufacturer, merchant, schoolmaster, was beyond the ability of the reformer. This, together with the fact that the children were practically the refuse of society, and that their parents and people in general were without any appreciation of his enterprise, but were rather hostile to it, led to its abandonment.

During the next eighteen years Pestalozzi, as a participant in the revolutionary movement, devoted himself chiefly to literary work. For nearly two years he served as editor of the *Swiss Popular Gazette*, published under the authority of the Directory of the revolutionary government, and intended as a means of extending the educational and political propaganda of the revolution. Throughout these years from 1780–1798 Pestalozzi produced many articles, some on social reform subjects, but most on education. The fundamental thought of all, whether on political or educational subjects, was the same; namely, that social and political reform was to be brought about by education — not the current education, but a new education that would produce a moral and intellectual reform of the people. This, now, is a truth complementary to the partial one upon which he based his work at Neuhof. The earliest one of these purely educational works was *The Evening Hour of a Hermit*, published in 1780. This consisted of one hundred and eighty propositions which contain the germs of all his later more concrete work combined with the naturalistic doctrines of Rousseau. Their character can be indicated by a selected few.

"All the pure and beneficent powers of humanity are neither the products of art nor the results of chance. They are really a natural possession of every man. Their development is a universal human need." "[redacted] which develops the forces of humanity, must be easy and open to all; education, which brings true wisdom and peace of mind, must be simple and within everybody's reach." "Nature develops all the forces of humanity by exercising them; they increase with use." "The exercise of a man's faculties and talents, to be profitable, must follow the course laid down by nature for the education of humanity." "This is why the man, who, in simplicity and innocence, exercises his forces and faculties with order, calmness, and steady application, is naturally led to true human wisdom; whereas, he who subverts the order of nature, and thus breaks the due connection between the different branches of his knowledge, destroys in himself not only the true basis of knowledge,

but the very need of such a basis, and becomes incapable of appreciating the advantages of truth." "When men are anxious to go too fast, and are not satisfied with nature's development, they imperil their inward strength, and destroy the harmony and peace of their souls." "When men rush into the labyrinth of words, formulas, and opinions, without having gained a progressive knowledge of the realities of life, their minds must develop on this one basis, and can have no other source of strength."

The most popular of all his writings, the one that exerted the most influence, was his *Leonard and Gertrude*, the first volume of which was published in 1781. Written as a novel, it popularized the idea that he initiated in practical reform a generation later. This new education was to consist in a moral and intellectual *development* of the child and, in turn, was to produce a similar reform in society at large. The purpose of the book was to depict the simple village life of the people and the great changes caused therein by the insight and devotion of a single ignorant woman, Gertrude. By her industry and patience and skill in educating their children she saves her husband, Leonard, from idleness and drink. Neighbors, children, and neighboring families are finally brought within the influence of the new ideas; and by the simple methods of this peasant woman this new purpose in education effects the reform of the entire village. What was done in Bonal, Pestalozzi held could be done in every village. This was his mission in life: to work out in detail the methods of this education that was to effect the regeneration of society by securing for every child that moral and intellectual development which was his natural right and inheritance. Written as a "book for the people" it failed, as a matter of course, in reaching the ignorant masses; and the three succeeding volumes, designed to give the reading public, reached by the first, a more detailed knowledge of the new education, failed to interest it at all. In reading this simple

tale it is difficult for one now to understand its popularity and influence. But coming in a period of romanticism, it appealed to the popular fancy, and in a period of social agitation it appealed to the enthusiasm and hopes of the thinking classes. Were it not for the germs of the great movement contained therein, it would survive now only as a juvenile moral tale.

While there were many other educational treatises produced by him during this period, but one can be noted here. That is his *Researches into the Course of Nature in the Development of the Human Race*. Into this brief treatise Pestalozzi put three years' labor in the endeavor to give a philosophical formulation to his own ideas, which at that time were but a restatement of Rousseau's theses. As he possessed neither the philosophical insight to state the logic of his own ideas or practices, nor the literary skill to improve upon Rousseau, he was in this unsuccessful.

In 1798 there occurred a complete change in Pestalozzi's career. Hitherto he, like others, had been theorizing about the new education, concerning which he knew little concretely, and criticising the old — the evils of which were patent on every side. He announces, as if by inspiration, "I will turn schoolmaster"; for he at length realized that the way to establish education as the means to social reform was to demonstrate in a practical way its efficiency. No more remarkable testimony concerning the value and the validity of his fundamental educational ideas can be found than that this man who did not begin to teach until after fifty years of age and who, from the practical point of view, failed in every enterprise he undertook in his long life, should, after all, have had more influence than any other one person in the educational improvement of the nineteenth century. One chief reason for this was that his ideas were the results of experimentation. Consequently the truths reached were not completed and closed formulas, but rather suggestions for the guidance of the work of education, which, since

the concrete personal elements to be dealt with are never fully determinable in advance, must always partake somewhat of the nature of experimentation. Where, as it readily could, the Pestalozzian influence realized itself in the imposition of fixed formulas of procedure, there the least benefit resulted. Where spirit and purpose prevailed, it became the germ of the broader educational thought and more intelligent practice of the latter part of the nineteenth century. But even if credit be given to Pestalozzi only for this more restricted influence, it is something to have established scientific experimentation, rather than mere theorizing or mere empiricism, as the source of educational truths.

In the year mentioned, Pestalozzi's connection with the government publication having ceased, he accepted the charge of those children in one of the districts of Switzerland made orphans through the massacre of the people by the French soldiery. With these orphans at Stanz were first worked out the germs of the new educational practices. Here again, as in the case of his earlier experience, his fundamental purpose was to combine educational activities with handwork. But now he saw not only that the two could be carried on together, but that, if an approach differing from that of the ordinary schoolroom was made, much of the experience that was most valuable for mental development came directly from those activities in which the children were immediately interested. Pestalozzi's own statement of this work is full of the meaning of the new truth. "Here is the principle upon which I acted: Seek first to open the heart of the children, and, by satisfying their daily needs, mingle love and benevolence with all their impressions, experience, and activity, so as to develop these sentiments in their hearts; then to accustom them to knowledge in order that they may know how to employ their benevolence usefully and surely in the circle around them." In this, as in all of Pestalozzi's later work, we find the key to his educational influence, — the essential to reform is a new

method and new spirit in all educational works. The fortunes of war terminated this experiment in less than a year.

In the following year Pestalozzi, now a discredited visionary, was accepted as assistant teacher in the village school at Burgdorf. In the elementary school of this village, Pestalozzi taught for more than a year with slight satisfaction to the villagers, who saw little commendable in his rather erratic innovations. But for the cause of educational reform this brief experience was fraught with great importance, for here was first worked out the significance of the object lesson, not as a mere means of gaining knowledge of the word, or even of the thing, as with Comenius and earlier reformers, but as a means of mental development. Here Pestalozzi first announced his great aim, "I wish to psychologize education." The recognition that the public failed to give was furnished by some friends among the progressive officials of revolutionary and hence philanthropic bent, and by some schoolmasters, appreciative of the great significance of these new ideas, who now attached themselves as assistants. To these Pestalozzi owed the avoidance of complete failure and the educational world the carrying to a successful issue of this first stage in modern educational reform. A private school, partially endowed by the government, was established, where for some four years experimentation, both with the pupils and teachers along the line of the new thought, continued.

The great purpose now clearly held before him was to answer the fundamental educational question which was a challenge to the existing education respecting its purpose and its means. These inquiries were to determine what knowledge and what practical abilities were necessary for the child, and how they could be furnished to the child or obtained by him. This period produced Pestalozzi's most systematic work — *How Gertrude Teaches her Children* (1801) — which was an attempt to answer the above questions. At least it is the

most definite answer Pestalozzi himself gives to these questions. But its value lies more in its suggestiveness and in its indication of the fundamental problems with which the author was struggling than in the specific answers it furnishes to the questions raised. This work at Burgdorf, directed both toward the education of the children and the training of teachers, was watched with great interest by publicists and philanthropists, was assisted by the government, and was widely discussed through pamphlet and magazine controversy. But again withdrawal of the meager though necessary support, on account of political changes, together with disagreement among the directors of the institute themselves, led to its abandonment, and Pestalozzi withdrew to Yverdun for his last and longest experiment.

Among this French-speaking people, with whom he believed his reform would make more rapid headway, Pestalozzi labored for twenty years. Here, more than hitherto, the work was directed toward the training of teachers and direct experimentation in reforming educational practices. Text-books were compiled, numerous explanatory and controversial articles were published, students were trained for various European countries, and visitors were welcomed from almost every civilized people. The object of the work was a further definition of the problems raised at Burgdorf and the propagation of these school reforms. But the task of managing the institute, not to mention that of conducting a world reform, was too great for the old enthusiast, who was past sixty before the institute was founded and who never possessed the ability for practical management. The impracticability of the founder, together with the dissensions, both private and public, of his assistants, did much to discredit his work of reform, and render it profitless to study his life further in detail.

(*a*) *As to Purpose.* — Throughout his long life Pestalozzi was moved by a convic-

tion that we have found to be common to most educational reformers since the early Renaissance; namely, that education is to become the chief means to social reform. This idea, however, possessed a peculiar significance during the latter half of the eighteenth century, since that was a period in which the greatest variety of remedies for social evils were advocated. New religions, no religions; new governments, no governments; new societies, no society — all were suggested. Socialism, anarchism, communism, pure individualism, atheism, deism, naturalism — all found their advocates. Every form of Utopia found its devotee, while the practical means chosen by all was revolution. Throughout all this period of turmoil, especially during the period of his literary activity, the voice of Pestalozzi in suggesting education — a new education — as the means for social regeneration became clearer and clearer.

Few among those that in previous periods had held education to be the means for social regeneration had considered that it was necessary for the masses. Such as had, were chiefly the Reformation leaders, who viewed the entire subject from the religious point of view. Even those, such as Comenius, who took a broader point of view and held that the education of the masses in every phase of knowledge was desirable from reasons other than the purely religious, were far from the thought of Pestalozzi. The latter had in view an entirely different conception of education — one that had little or nothing to do with the comprehensive encyclopedism of Comenius, but that related solely to the development of the child's nature, mental, moral, physical. In other words, what Rousseau had demanded in a theoretic way, for one individual, *Émile*, Pestalozzi demanded for every child, no matter how poor and humble his surroundings or how limited his capacities. Hence Pestalozzi's demand for universal education of the masses possesses an entirely new significance, — a significance only grasped when one conceives the difference between the old conception of educa-

tion and that which he held. The peculiar turn which Pestalozzi gave to Rousseau's doctrine concerning the detrimental influence of the arts and sciences was that through their identification with education, popular education comes to be a mere form without any resulting benefits for the masses, while the learned classes grow into greater knowledge, power, and indifference to the needs of the masses. In his *How Gertrude Teaches* he says: —

"Europe, with its system of popular teaching, has fallen into error, or rather it has lost its way. On one side it has risen to an immense height in the sciences and arts; on the other it has lost the whole foundation of natural culture for the bulk of the people. No part of the world has risen so high; no part has sunk so low. Our continent resembles the great image mentioned by the prophet; its golden head touches the clouds, but popular instruction, which should bear this head, is like the feet of clay. In Europe the culture of the people has become vain babbling, as fatal to faith as to true knowledge; an instruction of mere words which contains a little dreaming and show which cannot give us the calm wisdom of faith and love, but, on the contrary, lead to unbelief and superstition, to selfishness and hardness. It is indisputable that the mania for words and books, which has absorbed everything in our popular instruction, has been carried so far that we cannot possibly remain long as we are. Everything convinces me that the only means of preserving us from remaining at a civil, moral, and religious dead level is to abandon the superficiality, the piecemeal, and infatuation of our popular instruction, and to recognize intuition as the true fountain of knowledge."

(1) [redacted] — In defining the new conception Pestalozzi started, as did Rousseau, with the contrast between the accepted educational usages and the natural development of the child. Speaking of children in their early years he says: —

"Their power and their experience both are great at this age; but our unpsychological schools are essentially only artificial stifling machines for destroying all the results of the power and experience that nature herself brings to life in them. You know it, my friend. But for a moment picture to yourself the horror of this murder. We leave children up to their fifth year in the full enjoyment of nature; we let every impression of nature work upon them; they feel their power; they already know full well the joy of unrestrained liberty and all its charms. The free natural bent which the sensuous happy wild thing takes in his development has in them already taken its most decided direction. And after they have enjoyed this happiness of sensuous life for five whole years, we make all nature round them vanish before their eyes; tyrannically stop the delightful course of their unrestrained freedom; pen them up like sheep, whole flocks huddled together in stinking rooms; pitilessly chain them for hours, days, weeks, months, years, to the contemplation of unnatural and unattractive letters, and, contrasted with their former condition, to a maddening course of life."

The connection between nature, education, and instruction is yet more clearly indicated in the following: —

"Whatever, therefore, man may attempt to do by his tuition, he can do no more than assist in the effort which the child makes for his own development. To do this so that the impressions made upon him may always be commensurate to the growth and character of the faculties already unfolded, and, at the same time, in harmony with them, is the great secret of education. The knowledge to which the child is to be led by instruction must, therefore, necessarily be subjected to a certain order of succession, the beginning of which must be adapted to the first unfolding of his powers, and the progress kept exactly parallel to that of his development."

Or again: —

"Sound education stands before me symbolized by a tree planted near fertilizing waters. A little seed, which contains the design of the tree, its form and its properties, is placed in the soil. The whole tree is an uninterrupted chain of organic parts, the plan of which existed in its seed and root. Man is similar to the tree. In the new-born child are hidden those

faculties which are to unfold during life. The individual and separate organs of his being form themselves gradually into unison, and build up humanity in the image of God. The education of man is a purely moral result. It is not the educator who puts new powers and faculties into man, and imparts to him breath and life. He only takes care that no untoward influence shall disturb nature's march of development. The moral, intellectual, and practical powers of man must be nurtured within himself and not from artificial substitutes. Thus, faith must be cultivated by our own act of believing, not by reasoning about faith; love, by our own act of loving, not by fine words about love; thought, by our own act of thinking, not by merely appropriating the thoughts of other men; and knowledge, by our own investigation, not by endless talk about the results of art and science."

These somewhat extended quotations give Pestalozzi's conception of education more clearly than would a similar amount of exposition. Education is but the organic development of the individual, — mental, moral, physical. This development comes in each of these phases by doing, through activities initiated by spontaneous desire for action, which leads to growth, and along lines predetermined by the nature of the organism,— the child. It does not come by forms of procedure established by custom. To quote the definition in its more traditional form, education is the natural, progressive, harmonious development of all the powers and faculties of the human being.

Starting from the new purpose that Pestalozzi gave to education, the elevation of the common people from their ignorance, squalor, and misery, he was compelled to give to it a new meaning. His early experiences taught him that their material degradation could not be removed save by the removal of the intellectual and moral poverty and depravity. The removal of this, or rather the growth of the individuals composing the submerged portion of humanity into the moral and intellectual maturity for which they as well as the chosen few were destined, constituted education. He found in each

individual the germs of all the powers, sentiments, faculties, aptitudes that were needed for their successful, satisfactory, and useful participation in their walks of life and in the satisfaction of the needs of society. Directed, as it was, toward giving the child possession of forms or of merely acquainting him with them, — forms of religious thought through the catechism, forms of thought through the mere ability to read words, forms of practical or scientific procedure through the mere memoriter knowledge of mathematics, or the forms of culture through the dead languages, — the existing education did not accomplish this adjustment. Real education was to do none of this, but something infinitely greater: to develop in the child the elements of power implanted there by nature, by furnishing to him in appropriately selected and graded series the materials of experience needed as a basis for the natural exercise of these capacities. The novelty of all this was not in the new conception of the nature and powers of man, their development and manner of action, but in the application of this to education, — or more distinctively, — to the schoolroom. The school-teacher has to deal with these powers of action directly and his function is to furnish appropriate means and material for activity. Pestalozzi's insistence that there was a natural order in the development of the child's mind and that all educational activity should be based upon or guided by the knowledge of that growth, is not a pretension to the accurate knowledge of those laws of the mind's activity and development. That degree of finality was only claimed for him by his disciples of a later generation. But his is the honor of having first insisted upon the necessity of this knowledge as a basis for instruction, a view which later generations have accepted in their continued endeavor to increase this knowledge which the great reformer sought. This general idea of growth and of organic development through activity had been formulated by Lamarck into a general philosophy or scientific hypothesis, and had received

many special applications. It was Pestalozzi's work to apply it to the schoolroom, and to attempt to organize activities appropriate both to intellectual and to moral development. It is in this work, then, a work specifically related to method, that Pestalozzi exerted his greatest influence, and it is in this connection that he merits the greatest praise.

(c) *Influence on Educational Means and Method.* — The significance of the Pestalozzian reform in method can be appreciated only when the character of the contemporary schoolroom is kept in mind. In the village school in Burgdorf, where Pestalozzi was barely tolerated, even for a few months, as assistant, the master was the ignorant village shoemaker, who "kept" school in his shop and cobbled meanwhile. Kruesi, Pestalozzi's ablest assistant, gives this account of his first appointment as teacher, an office for which he had no preparation, though, as later experience showed, one for which he possessed great natural aptitude: —

"The day of examination arrived. One candidate, older than myself, exhibited his learning. He was ordered to read the first chapter of the New Testament and write some lines, — a task which took him half an hour to perform. I was called in. The examiner placed before me a genealogical table from Adam to Abraham, as a reading exercise. He then handed me an unmended quill pen, desiring me to write something. 'But what shall I write?' said I. 'Write the Lord's Prayer, or whatever you like,' was the reply. As I had no knowledge, either of parts of speech or orthography, or of punctuation [he explained elsewhere that he scattered capital letters at equal distances thinking they were for ornament], the result of my scribbling may be imagined. This was all the examination, and after it we retired. When we were recalled, the chairman informed us that neither had been found overburdened with learning; that one of us was better in reading, the other in writing; but, that since my rival was already forty years old, while I was only eighteen, they thought I would sooner acquire the necessary knowledge. Moreover, since my dwelling [the town had no schoolhouse]

was better adapted for a school than that of my competitor, they had appointed me schoolmaster. No doubt I felt happy at this unexpected decision, though I had no reason to be very proud of my salary, which was only one dollar per week, while my vanquished opponent was appointed policeman, with one and a half dollars per week."

So, we find the village watchman, the bricklayer, the rope maker, the crippled soldier, the widow, or any one whose occupation did not consume all his time or furnish him with complete living, was chosen as schoolmaster. More frequently the convenient house which they occupied was of greater importance than their qualification as teachers. When one turns to the character of the work of the school, the reasons for this can be readily understood. The work of the two schools mentioned above, and, with possible slight alterations, that of all the regions around, consisted of a primer (spelling and name book), a reader (the beginnings of Christian doctrine), the Heidelberg catechism and the Psalter. Besides learning to read, that is, the mere ability to recognize forms of words, the work of the school was pure memorizing of theological or religious texts. This constituted both moral and religious education. The method in which this work was done is thus described by Diesterweg: —

"Each child read by himself; the simultaneous method was not known. One after another stepped up to the table where the master sat. He pointed out one letter at a time, and named it; the child named it after him; he drilled him in recognizing and remembering each. They then took letter by letter of the words, and by getting acquainted with them in this way, the child gradually learned to read. This was a difficult method for him, a very difficult one. Years usually passed before any facility had been acquired; many did not learn in four years. It was imitative and purely mechanical labor on both sides. To understand what was read was seldom thought of. The syllables were pronounced with equal force, and the reading was without grace or expression. Where it was possible, but unnaturally and mechanically, learning

by heart was practiced. The children drawled out texts of Scripture, Psalms, and the contents of the catechism from the beginning to end; short questions and long answers alike, all in the same monotonous manner. Anybody with delicate ears who heard the sound once would remember it all his life long. There are people yet living, who were taught in that unintelligent way, who can corroborate these statements. Of the actual contents of the words whose sounds they had thus barely committed to memory little by little, the children knew absolutely almost nothing. They learned superficially and understood superficially. Nothing really passed into their minds; at least nothing during their school years. The instruction in singing was no better. The master sang to them the psalm tunes over and over, until they could sing them, or rather screech them, after him. Such was the condition of instruction in our schools during the sixteenth, seventeenth, and two thirds of the eighteenth centuries; confined to one or two studies, and those taught in the most imperfect and mechanical way."

This, in Pestalozzi's view, was not education in the true sense of the word. "A man who has only word wisdom is less susceptible to truth than a savage. This use of mere words produces men who believe they have reached the goal, because their whole life has been spent in talking about it, but who never ran toward it, because no motive impelled them to make the effort; hence I come to the conviction that the fundamental error — the blind use of words in matters of instruction — must be extirpated before it is possible to resuscitate life with truth."

This condemnation of the existing school work forms the most often repeated idea in Pestalozzi's writings, and if he had accomplished nothing but the negative destructive work, he would hold an important place in the history of schools. While this was the character of the schools of Switzerland and of Germany, those of other countries were no better, if as good. That such was the condition of the average district school in the United States well into the nineteenth century and of the

average elementary school in England much later is well known.

The character of the school which Pestalozzi would substitute for this has been indicated. The school was to be a transformed home, approximating the same relationships, duplicating the same spirit, seeking the same ends; that is, the moral and intellectual development and the material betterment of the child. It is the peculiar excellence of Pestalozzi that he was the first to make great progress in indicating the practical way in which these new educational ideas could be realized. But in seeking the essentials of this new method, we must clearly distinguish between the principles fundamental to the new practices and the particular form, often crude and experimental, sometimes erroneous or absurd, which was given to these principles in the early gropings of Pestalozzi and his assistants.

The essential thought of the Pestalozzian method is comparatively simple. It is based on the fundamental conception of what education is; namely, the continuous development of the mind through appropriate exercise so selected that there will result a harmonious and progressive functioning of the mind in all its capacities of action or expression. The result at any stage should be a symmetrical and complete organic life. The fundamental endeavor was to analyze knowledge in any particular line into its simplest elements, as these present themselves naturally to the attention of the child. These were to be acquired not simply in their form, but in their real inner meaning by the process of observation, or sense impression (intuition, it was often called), and developed by a progressive series of exercises graded by almost imperceptible degrees into a continuous chain. Such exercises were to be based primarily upon the study of objects rather than upon the study of words. The object lesson, then, was the core of the method; but the object lesson not as often employed for the mere purpose of obtaining a knowledge of the object, or

even of developing powers of observation. Its real use was as a basis for the entire mental development of the child. This training in observation was the beginning only.

"Meanwhile," he says, "the consciousness began daily to develop in me that it must be absolutely impossible to remedy school evils as a whole if one cannot succeed in reducing the mechanical formulas of instruction to those eternal laws, according to which the human mind rises from mere sense impressions to clear ideas. The child learns — that is, develops mentally — through his own activities, and only through impressions, experiences, not through words; though, to be sure, these experiences must be clearly expressed in words, or otherwise there arises the same danger that characterizes the dominant word teaching, — that of attributing entirely erroneous ideas to words."

In their purpose and spirit at least, these are the essentials that have entered into all subsequent educational reform. The particular form is incidental and has been vastly improved since these earlier efforts.

It is impossible in a brief space to indicate the details of special methods; the greater portion of Pestalozzian literature is given up to this. A few indications of immediate general changes must suffice for fuller presentation. The great emphasis upon arithmetic in elementary education is partly due to his insistence upon the importance of number. Especially "mental" arithmetic, which indicated an "intuitive" knowledge of numerical relationships instead of a mere knowledge of rules, acquired an important place in the school. All arithmetical relations were reduced to the fundamental processes of the combination and separation of units, addition and subtraction. The object was to give the child a thorough understanding of the properties and proportions of numbers, and not merely formal methods of "ciphering." Instruction in numbers was connected with objects and with the play or other activities of the child. Greater success was

reached and greater improvement in the method of the schools was made in the instruction in this subject than in any other.

Great attention was paid to drawing, of which subject writing formed a part. In both writing and drawing the child, starting with a mastery of simple elements, straight lines, angles, curves, by slow processes of combinations through thorough exercises, was led to a real mastery of these arts through the synthetic process, and not by mere imitation. In fact, all mere memory and purely imitative processes were theoretically at least to be eliminated from the school in favor of this training in "intuitive" or vitalized observation.

In the language studies similar advances were made, though with the usual accompanying errors. The old method of letter spelling and reading was replaced by the phonetic and syllabic method. Great effort was put forth to reduce this to its simplest form, with much greater success, from the nature of the languages, in German than in French and in English. Nevertheless, the endless and meaningless repetition of elemental syllables, "ab, ib, ob, ub," etc., that formerly constituted so large a part of spelling and reading books, was sanctioned by Pestalozzi's methods. A notable feature was the use of objects as the basis of language lessons in all their phases in substitution for the purely meaningless drill in words which were beyond the understanding or interest of the child.

The methods of geography were similarly transformed, at least in theory; though here, as in other subjects, many schools yet await the arrival of the century-old reform. The school yard or the village was to furnish the simple elements of this subject and these were to be combined and expanded, step by step, until the structure of the whole earth and its relation to man were developed from the simple elements. Geography was made the basis of, or at least closely connected with, instruction in nature studies (natural history) and agriculture.

In fact the nature-study movement, being closely related to object study, was an outgrowth of these new methods, though as in most other subjects great advance has been made since then in special methods and in the very conception of this study. Singing and gymnastics formed important parts of the newly organized schoolroom activities; the latter was a complete innovation, the former was of an entirely different character from that previously dominated by religious spirit. But it was not for proficiency in music that this great emphasis was made, but for its influence on the feelings and on moral training. In general, the arrangement of all modern textbooks is a direct though not necessarily an immediate outgrowth of Pestalozzi's efforts at analyzing the subject into its simplest elements and proceeding then by a gradual increase in the complexity of the material to build up a connected and symmetrical understanding of the subject. The old method of beginning with a mastery of rules and principles as in arithmetic, of the rules of abstract form in language, or of most general relations, as in geography, history, and the natural sciences, has been gradually superseded.

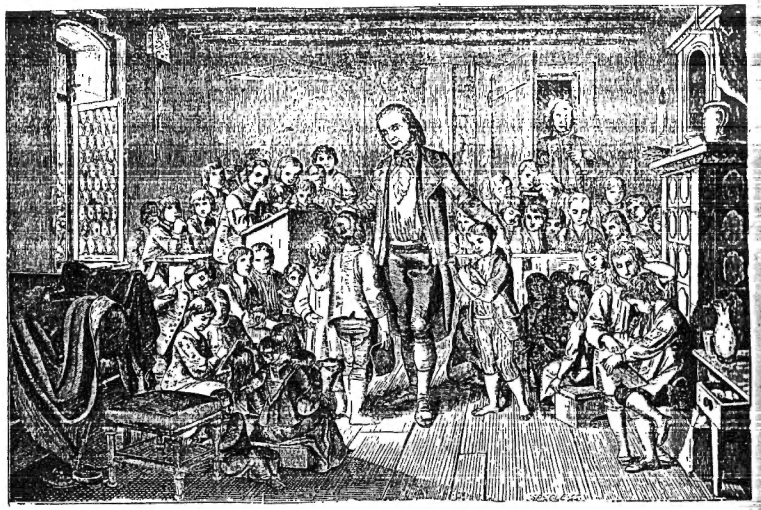
Morf, one of Pestalozzi's ablest disciples, summarizes the general principles of these methods as follows: —

(1) Observation, or sense-perception (intuition), is the basis of instruction. (2) Language should always be linked with observation (intuition), *i.e.* with an object or content. (3) The time for learning is not the time for judgment and criticism. (4) In any branch teaching should begin with the simplest elements and proceed gradually according to the development of the child, that is, in psychologically connected order. (5) Sufficient time should be devoted to each point of the teaching in order to secure the complete mastery of it by the pupil. (6) Teaching should aim at development, and not at dogmatic exposition. (7) The teacher should respect the individuality of the pupil. (8) The chief end of elementary teaching is not to impart knowledge and talent to the learner, but to develop and increase the powers of his intelligence. (9) Power must be linked to knowledge, and skill to learning. (10) The relation between the teacher and the pupil, especially as to discipline, should be based upon and ruled by love. (11) Instruction should be subordinate to the higher aim of education.

(*d*) *Influence on the General Spirit of the Schoolroom.* — There remains one further point to be noted, — that contained in the tenth principle stated above. In regard to method, as Pestalozzi himself stated in an exaggerated way, "half the world" was working on the same problem. The new purpose in education was held by many others — public men, religious leaders, philosophers, and educators. In defining the new meaning of education, he was but making more explicit the ideas of Rousseau, Basedow, and others. His peculiar excellence was in making evident, through all his writings and all his work, that a n spirit must pervade the schoolroom, that both teacher and pupil must breathe a new atmosphere,

A Typical German Schoolroom of the Eighteenth Century.

— the atmosphere of the home. What cannot be taken away from him is the credit for demonstration from the very nature of the educational process that when the end is development and not mere acquisition of formal principles, the only basis for the relation of teacher and pupil is sympathy. The contrast is clearly indicated by a comparison of accompanying illustrations; one of the typical German schools



PESTALOZZI IN HIS SCHOOLROOM AT STANZ.

before Pestalozzi's time, the other of Pestalozzi's school at Stanz. In other lines, more recent times have developed the germs of the ideas suggested by the unlettered reformer; but in this one respect, every modern schoolroom is so directly indebted to him that he may yet be called, as he was by his own teachers and followers, "Father Pestalozzi."

THE HERBARTIAN MOVEMENT. Its Relation to Pestalozzianism. — Herbart built upon and supplemented the work of Pestalozzi. But he soon reached an elaboration of educational thought far beyond that of Pestalozzi. The latter insisted always in his theoretical statements that instruction was to lead from sense-perception to "clear ideas." But his practical work went little beyond the formulation of the training in sense-perception through exercises in observation. Except as he accomplished it with a few children through the genius of his own personality, he did not show either theoretically or practically how mental assimilation and growth take place from this starting point, or how moral character was to be made the outcome. Herbart carried this further and showed how the product of sense-perception could be converted into ideas, through the apperceptive process, and how knowledge in turn could thus be made to bear upon moral character through the processes of instruction. As Pestalozzi would substitute his method for the formal verbal methods in memory training of the existing schools, making this latter method wholly subordinate to methods of training in sense-perception, so Herbart would use Pestalozzi's method merely as an initial one. In a discussion of the Pestalozzian method, Herbart says: —

"The whole field of actual and possible sense-perception is open to the Pestalozzian method; its movements in it will grow constantly freer and larger. Its peculiar merit consists in having laid hold more boldly and more zealously than any former method of the duty of building up the child's mind, of constructing in it a definite experience in the light of clear sense-perception; not acting as if the child had already an experience, but taking care that he gets one; by not chatting with him as though in him, as in an adult, there already were a need for communicating and elaborating his acquisitions, but, in the very first place, giving him that which later on can be, and is to be, discussed. The Pestalozzian method, therefore, is by no means qualified to crowd out any other method, but to prepare the way for it. It takes care of the earliest age that is at all capable of receiving instruction. It treats it with the seriousness and simplicity which are appropriate when the very first raw materials are to be procured. But we

can be no more content with it than we can regard the human mind as a dead tablet on which the letters remain as originally written down."

Consequently, in one other main point, Herbart differs radically from Pestalozzi, again by way of addition. As Pestalozzi made the presentation of the physical world through sense-perception the chief aim of instruction, if not of education, Herbart made the moral (æsthetic) presentation of the universe the chief end of education. Sense-perception is no longer sufficient. "Experience, human-converse, and instruction taken all together constitute the presentation of the universe." As a result, the emphasis which Pestalozzianism tended to place on arithmetic, geography, and the nature studies is replaced in Herbartianism by an emphasis on pure mathematics on the one hand and more especially on the other by that on the classical languages, literature, and history.

At one other point Herbart's work takes its initiative from Pestalozzi's. The latter reiterated his purpose of "psychologizing education"; but while rejecting the old psychology he did not and could not construct any system of his own. Herbart did quite as notable work in this line as in constructive educational thought. However, his psychological ideas much sooner served their purpose than have the educational, and gave way to more accurate knowledge.

In general, Herbart's work was the antithesis of Pestalozzi's, in that it was logical and philosophical in character, while Pestalozzi's possessed no logical form or system and little definitely formulated philosophical basis. The one possessed the comprehensive view and calm logic of the philosopher; the other the intense emotionalism and strong purpose of the reformer working toward immediate betterment, though with no adequate view of the ultimate end.

Life and Works of John Frederick Herbart (1776–1841). — There is little in the life activities of the man that throws

light upon his educational doctrines, and hence little that can concern us here. Passing through the traditional educational course of the gymnasium and university, he gave evidence of ability and originality at every point. At the age of twenty-one he left the university for a three years' experience as private tutor, from which he formulated much of his educational doctrine. He later enunciated the belief that any real knowledge of the psychology of education can be gained, not from the study of children in masses and from brief acquaintance, but only from a prolonged intimate study of the mental development of a very few individuals. He returned later to study and then to give instruction in philosophy and in education in the University of Göttingen. Here and at the University of Königsberg he spent the remainder of his life. At the latter place he established his pedagogical seminar with a practice school attached, the forerunner of the university type of instruction and experimentation in the subject of education. While as a member of school commissions he took some part in educational reform, his life for the most part was spent in investigation, lecturing, and publication.

Referring to his approach to educational problems, he says in one of his essays, — *Observations on a Pedagogical Essay:*

"I have for twenty years employed metaphysics and mathematics, and side by side with them self-observation, experience, and experiments, merely to find the foundations of true psychological insight. And the motive for these not exactly toilless investigations has been and is, in the main, my conviction that a large part of the enormous gaps in our pedagogical knowledge results from lack of psychology, and that we must first have this science — nay, that we must first of all remove the mirage which to-day goes by the name of psychology — before we shall be able to determine with some certainty concerning even a single instruction period what in it was done aright and what amiss."

Herbart's Psychology. — This, then, is Herbart's great contribution to education. The movement which Locke began

in making the child the center of educational endeavor and pedagogical theory; which Rousseau established in general form through his brilliant critical and destructive work in the form of investigative literature; which Pestalozzi brought down to the schoolroom and made concrete in the hands of every teacher; that movement Herbart made permanent by giving it an actual scientific basis in place of the imaginative one of Rousseau and the empirical one of Pestalozzi. We are here concerned only with the main educational applications, not with an exposition of Herbart's psychology, which at most points has received development and modification with the investigation of the intervening century, and at many important points has been entirely superseded.

The fundamental point is that he established educational work upon the basis of a unified mental life and development. As previously noted, the psychology prevailing even in the nineteenth century — popular even to-day — was the Aristotelian "faculty" psychology, but slightly modified even by modern thought. The soul was endowed with higher and lower capacities, entirely distinct, each class of mental phenomena being considered as the product of the appropriate faculty. The more important were those of knowledge, feeling, and will, which were in turn divided into an elaborate system of capacities or sub-faculties. With this diversity of mental life as a basis, the work of the school possessed a similar diversity of aims, for each separate faculty demanded its appropriate and distinct training through some form of discipline (see Chapter IX). In place of this Herbart substituted the conception that the soul is a unity, not endowed with intuitive or inborn faculties, but a blank at birth, possessing but one power, — that of entering into relation with its environment through the nervous system. Through these relations the mind is furnished with its primary "presentations" of sense-perception; and from these the whole mental life is developed. The interaction of these presentations lead through generali-

zation to concepts, and by similar processes of interaction to acts of judgment and reasoning. What the teacher has to work with is a mass of presentations, coming from two main sources, — experience, contact with nature; and intercourse, contact with society. Through the expansion of the one original power the teacher has to develop *knowledge* from experiences and *sympathy* from intercourse, by processes which are to be noted in the following sections.

The mind or soul is built up, acquires a content, not through the development of inherent faculties, but through presentations, — through ideas resulting from its own experiences. It is inherently neither good nor bad, but develops one way or the other according to external influences, that is according to what it receives in the way of presentations and the manner of their combinations. Two corollaries of tremendous importance to education follow: (1) The chief characteristic of the mind is its power of assimilation; (2) education, which determines what presentations the mind receives, and also the manner in which they are combined into higher mental processes, is the chief determining force in shaping the mind and character.

Herbart's educational doctrines are thus founded upon this assimilative function of the mind, — apperception. So far as the immediate importance of this doctrine to the teacher is concerned it is immaterial, as has often been pointed out, whether one agrees with Herbart in rejecting all inherent constitutive powers of the mind or not, for such original powers are beyond control, and the best that the teacher can do under any circumstances is to direct the development of the mind through control of this assimilative process. From this point of view De Garmo thus states the work of the teacher: —

"His primary function is to impart knowledge in such a way that it can be most rapidly, securely, and profitably assimilated, and this is the problem of concrete apperception.

Whether the mind be a germ or a series of germs to be developed, or whether it is a structure to be erected, the process is still the same from the teacher's standpoint. He must know something of the child's previous knowledge and interests in order to utilize them; he must select his materials of instruction with respect to ultimate purposes and the pupil's comprehending powers; he must arrange the subject-matter, not only with respect to the pupil's acquired experience, but also with respect to that which he is going to acquire, *i.e.* the studies must be brought into the best coördinate relation to one another, and he must adapt his teaching processes so as to secure the quickest apprehension and the longest retention of the matter taught. All this has to do with the acquisition of new experience upon the basis of that already acquired."

Apperception, then, — the assimilation of ideas by means of ideas already acquired — is the basal psychological principle of Herbart when applied to education; the theoretical exposition of this idea is his chief work; its practical elaboration, that of his followers.

Conception and Purpose of Education. — Herbart derived his conception of education from philosophy as he derived its aim from ethics. On the one hand he opposed determinism or fatalism, which rendered education impossible or at least mechanical, since character according to this view is shaped by forces entirely beyond control. On the other hand he opposed the doctrine of the transcendental freedom of the will, which made moral education useless, since according to this view the will chooses entirely independent of such would-be determining influences. The will, then, is not any independent faculty of the mind that can originate actions that are independent of ideas or thought processes, but it is a functioning of the mind, growing out of and wholly dependent upon the ideas or presentations possessed by the mind. This conception of the will is fundamental and must be kept in mind throughout any consideration of Herbart's doctrines. The will is the product of action or experience, not, as usually

held, the determining cause of action. The apperceptive process is fundamental, because ideas lead to action, action determines character. The aim of education, according to Herbart, is ethical. "The one and the whole work of education may be summed up in the concept, — morality," is the opening sentence of the *Æsthetic Presentation*. Again, "The term 'virtue' expresses the whole purpose of education," is a statement in his *Educational Doctrines*. To him virtue was "the idea of inner freedom which has developed into an abiding actuality in an individual." That is, it is an evolutionary product in each individual, resulting from a cumulative series of experiences, because each relationship calls forth an independent judgment of approval or disapproval. Since these judgments are without proof, but spring immediately from a contemplation of the relationship and are thus like those of taste, Herbart called them æsthetic judgments. His first philosophical treatise on education is entitled *The Æsthetic Presentation of the Universe as the Chief Aim of Education*. Herbart, carrying Pestalozzi's analysis of the alphabet of perception — number, form, language — much further, found the necessity for various other elements, notably those of taste and obligation. Rather, he combined the two under the norm of what is *not necessarily so*, but what *ought to be*. These are called *æsthetic presentations*. Such presentations include "the fitting, the beautiful, the moral, the just; in one word, that which in its perfect state *pleases* after perfect contemplation." To develop this attitude of preference for that which constitutes "inner freedom" into an "abiding actuality in the individual" is the chief aim of education. The process of doing this constitutes the "æsthetic presentation of the universe," through "experience, human converse, and instruction."

Herbart's analysis of virtue, or of moral character, went further; it was not left in formal terms, but was reduced to five moral relationships or ideas. The fundamental one was

Both appear in every completed educational process as stages preliminary to, or incidental to, the expression or constructive process.

The forms of expression of the child's nature which Froebel seized upon as of importance in this training were first gesture, second song, third language. Through these means Froebel sought to have the child express his feelings and ideas. He devoted the remainder of his life to the organization of material in such forms of play, games, constructive activities, stories, and the like, as would assist the child and would furnish material to the teacher for directing the child's interests and actions. So far as possible these means were to be coördinate. The story, for example, when told by the teacher, was to be expressed by the child, not only in his own language, but through song, or gesture or pictures, or construction of simple articles from paper, clay, or other convenient material. In this way ideas would be given, thought stimulated, the imagination vivified, the hands and eyes trained, the muscles coördinated, the moral nature strengthened through the effort to put into concrete objective form the higher motives and sentiments aroused. Thus the aim of educational, many-sided development was to be secured. The chief materials of the kindergarten, aside from the songs, the *Mutter und Kose-lieder*, Froebel organized into a series of "gifts and occupations." These are introduced gradually and in order. As the child becomes familiar with the properties of the one gift or the activities called forth by the occupation, he is led on to the next, which grow out of the preceding, each introducing new impressions and repeating old ones. The distinction between the gifts and occupations, though commonly made, is an arbitrary one. Froebel himself called all the activities occupations, and the materials for them, gifts. But the distinction seems to bring out a most prominent tendency in the development of the Froebelian principles; namely, that a much greater stress has come to be

placed upon the occupations than upon the gifts. While Froebel rendered the greatest service to education in thus transforming his principles into concrete schoolroom procedures, yet it is evident that many of these, including the songs, were appropriate only to his age and to the people with whom he was familiar, and that to keep his principles effective modification may be necessary in the present and future.

EFFECTS OF THE PSYCHOLOGICAL MOVEMENTS ON SCHOOLS. **The Pestalozzian Movement.** — While yet at Burgdorf, Pestalozzi's institute was frequented by numerous investigators, public men interested in education, students, even groups of students from various countries of Europe. The institute had been made a normal school, subsidized by the Swiss government. At Yverdun these conditions were intensified. Pestalozzian institutes were founded in Madrid, Naples, St. Petersburg. The monarchs of Russia, Prussia, Austria, and of the Italian states were personally interested in the reforms; and, as Pestalozzi said, any hedge schoolmaster, in order to succeed, had but to proclaim the use of Pestalozzian methods. In Switzerland itself the adoption of the new ideas was slow, owing partly to the fact that many of the cantons were under Roman Catholic control and partly to the fact that the Protestant cantons were now dominated by reactionary governments, naturally ultra-conservative, while Pestalozzi and his ideas had ever been associated with the revolutionary propaganda. After the revolutionary movement of 1830 a more liberal spirit prevailed, normal schools were established, several under the principalship of former pupils or assistants of Pestalozzi, and the new ideas were gradually but generally adopted.

Among the German states Würtemberg first fell under the new influence. During the first decade of the century Pestalozzian enthusiasts had been appointed school inspectors and principals of normal schools. Prussia followed. The

philosopher Fichte, in his address to the German people after the defeat at Jena in 1806, pointed out Pestalozzian education as the means of regeneration for the nation. The minister of education and the royal family were deeply concerned in the new educational movement. Picked young men were sent to Yverdun, and through them and the German assistants of Pestalozzi, who left Yverdun during the unfortunate disagreements among the staff, the new ideas were incorporated in the training of the teachers for the Prussian elementary schools.

Though students from France, Spain, and other nations were trained at Yverdun and though some progress was made in popularizing the new methods, the spirit of absolutism was unfavorable to their rapid development. It was not until after the revolution of 1830 that the educational reform movement made any progress in France. Then, especially under Victor Cousin, minister of education, great advance was made, notably in the training of teachers.

In England, that which received acceptance was a modified form of Pestalozzianism resulting from its combination with the prevailing monitorial and infant schools (see pp. 724–727). Consequently it was the more formal aspects of special methods rather than the real spirit of the reforms that dominated. This was chiefly through the work of the Mayos, brother and sister, who worked during the second quarter of the century.

Through England came much of the Pestalozzian influence exerted on the United States, and to this is largely due the formal and even superficial character of much of it, relating as it does or did to petty methods. However, not all of it was of this character, for the movement for the training of teachers, as well as the character of this training, were outgrowths of the Pestalozzian ideas. From the time of Neef, one of Pestalozzi's assistants, who was induced by a philanthropic American to settle in Philadelphia in 1808, sporadic

instances of the transplanting of the new ideas occurred. The translation (1835) of Cousin's *Report on the State of Public Instruction in Prussia*, which did so much for the reform of the French schools, had great influence upon educational leaders in America. From the results of the reform movement, especially as he saw it in Germany, Horace Mann drew many of his ideas and much of his inspiration. His *Seventh Annual Report*, one of the most influential educational documents ever published in America, embodies the results of his personal investigation. The most specific source of this influence, however, was what is known as the Oswego movement, begun in 1860. The ideas of this movement came indirectly from the Mayo movement in England and centered largely about the use of objects as the basis of instruction. The result was a previously unknown attention to the technique of education and to the details of special method that was the chief characteristic of normal school instruction during the generation following. Hence it comes that, for the most part, so far as principle is concerned, our schools are yet upon the Pestalozzian basis, though the special methods of applying these principles have been much improved.

One other practical effect of the Pestalozzian method on schools deserves at least mention; that is the new basis which it gave for the care of social dependents and defectives, especially paupers, semi-criminals, deaf-mutes and the blind. From Pestalozzi's institutions for the poor sprang the agricultural colonies, especially those for juvenile offenders. The industrial occupations furnished a reformatory element hitherto wanting in criminal punishment. Guided by the principles of his master, one of Pestalozzi's assistants established a school for deaf-mutes. The object method of teaching introduced hitherto unknown possibilities of developing such defective classes, while the industrial element gave them the prospect of economic independence, which was both a great gain for society and a basis for self-respect and self-

confidence hitherto denied these unfortunates. From these methods have developed the modern care and the methods of education of these classes.

The Herbartian Movement, being, as we have noted, largely one of principle, is not to be traced with any exactitude. The Herbartian propaganda, however, furthered as it has been by groups of educators devoted to the development or the popularization of his thought, is readily described. It is the former which has specific interest in the history of education, and here we must be content with indicating the extent to which Herbart's thought has entered into the educational consciousness of to-day, as that consciousness is determining, in a practical way, the work of our schools. Undoubtedly, in this sense, the Herbartian thought has entered very largely into the best work of the ordinary school, for the progressive teacher everywhere, however unconscious he may be of the ultimate origin of those influences, shares to some extent in the educational purposes and endeavors of the time.

The establishment of pedagogical seminaries and experimental or practice schools in connection with the universities was one of the more important educational works of Herbart, and at the same time the chief means by which his ideas and methods were brought to bear on the public schools. The seminaries at the Universities of Jena, Leipzig, and Halle were the more famous of these, and especially developed the Herbartian doctrines and applied them to practical work. At the first of these, Professor Stoy, later Professor Rein, have done most in applying these principles to elementary school work through the elaboration of general and special methods. It is from this course that the American influence has proceeded. From Professor Tuiskon Ziller, at Leipzig, came the more independent development of Herbart's original doctrine, especially its elaboration as the basis of the school curriculum, of the culture epoch theory suggested by Herbart and the details of the theory of concentration of

studies also suggested in principle by Herbart. Around each center has grown up a very extensive literature. From these two universities have gone out the most widespread influences, through trained teachers and normal schools and university instructors. Through these combined means the German schools have responded to these more advanced ideas and have, so far as the character of instruction is concerned, reached a higher degree of excellence than any other schools.

In the United States the dates of publication of the Herbartian literature will indicate of how recent origin the movement is, though, to be sure, there is an extended magazine literature of somewhat earlier date. Though there were many other contributing forces, the most immediate response to this discussion was the *Report of the Committee of Fifteen on Elementary Schools* made to the National Educational Association in 1895. The aim of this report was to unify the work of the elementary school, to find a basis for that unity in a curriculum embodying some form of correlation of studies, and to prompt to better methods of instruction. A similar report five years earlier by a "Committee of Ten" aimed to perform this work of unification for secondary education, and to bring about a closer articulation of elementary, secondary, and higher education. Through such means a very general influence is being exerted on the schools of our country toward placing the character of instruction on a higher basis than that reached through the Pestalozzian movements of some half century or more ago.

The Froebelian Movement. — As has been suggested, the influence of the Froebelian principles is practically coextensive with the most important educational tendencies of the present time. An analysis of these will make evident the fundamental character of the influence of Froebel on schools. The application which Froebel himself made of his principles to the kindergarten is being made by others to more advanced

phases of education. All that can be sketched here is the spread of the kindergarten as an institution.

In Germany a number of institutions similar to that at Keilhau were established before Froebel's death. But in 1851, a year before that event, kindergartens were prohibited by the Prussian government on account of their supposed revolutionary character. The Baroness Bertha von Marenholtz-Bülow, to whom the actual popularization of the kindergarten was largely due, transferred her activities, for the time being, to England. Though this prohibition was removed after ten years, kindergartens have not yet been incorporated into the public school systems. While many private ones exist, they are not considered schools. Their teachers are not required to comply with the standards required of elementary teachers and, though they are under the supervision of school inspectors, they may not teach anything which will duplicate the work of the elementary schools. Consequently in the work of these schools there has been comparatively little development.

France best illustrates the extensive development of schools for very young children. But these infant schools — the *écoles maternelles* — are rather a development of the infant school movement than of the kindergarten. To a very slight degree do they embody the principles of Froebel — certainly not his fundamental one of self-activity. While these schools have developed for the most part since the War of 1870, and while their establishment is optional with the communes, yet in them are trained half a million children of the ages from two to six.

First introduced into England in 1854, and advocated by a number of prominent men, such as the novelist Dickens, the kindergarten was established only in a few instances and then as a private institution for the wealthier classes. Not until 1874 did the ideas of the kindergarten begin to modify the work of the infant schools (see p. 726), which by this time had

been incorporated as a part of the public school system. It was the procedure and methods rather than the principles and spirit of the kindergarten that were grafted on to this dominant institution.

The first kindergarten in the United States was established by Elizabeth Peabody in Boston in 1860, though it was not until 1868 that she succeeded in embodying the spirit and purpose of Froebel's work. A number of private kindergartens were soon established. Under the leadership of Dr. W. H. Harris and Miss Susan Blow, — among the most prominent of Froebelian exponents in this country, — the kindergarten was first made a part of the public school system in St. Louis in 1873. Since that time the movement has developed until there is scarcely a city of any size but what has incorporated the kindergarten as a component part of its public schools.

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TOPICS FOR FURTHER INVESTIGATION

1. What similarity is there discoverable between the educational ideas of Rousseau and those of Pestalozzi? Of Herbart? Of Froebel? Of Kant? Of Richter?

2. Was there a consistent scheme of psychological thought in Pestalozzi's teachings?

3. What general conclusions concerning the change in the conception of education can you form from a comparison of definitions drawn from the later eighteenth and early nineteenth century, with those formulated during the last quarter century?

4. Point out some of the errors in practice in higher stages of education resulting from applying principles formulated from a consideration of the elementary stages alone.

5. State in greater detail the educational philosophy of Kant. Of Froebel. Of Rosenkranz.

6. What criticism of Pestalozzi does Herbart offer in his *A B C of Sense Perception*?

7. What practices in your own or in any selected schoolroom are due to the influence of Pestalozzi? Of Herbart? Of Froebel?

8. What agreement do you find between the psychological theories of Herbart as applied to education and those of Pestalozzi? Those of Froebel?

9. What did Froebel owe to Pestalozzi?

10. What contrast exists between the fundamental conception of the mind held by Herbart and that held by Froebel?

11. To what extent is the work of the elementary schools of our country now controlled by the principle formulated by Pestalozzi? By Herbart? By Froebel?

12. To what extent is it the duty of the school to give instruction in morals? To what extent is formation of character its aim?

13. To what extent can the work of instruction be made to bear directly upon conduct according to the Herbartian theory?

14. To what extent is the constructive work of the school based upon the Herbartian principle? To what extent is this justified?

15. What is the relation of interest to this process of character-forming instruction?

16. To what extent can interest be made the basis of school work?

17. What harmonization, if any, can be made between interest and the disciplinary conception of education? Is the idea of interest as the controlling principle of education incompatible with a training in will power?

18. To what extent does the importance of interest in education depend upon Herbart's doctrine of the precedence of ideas over volitions?

19. To what extent is there a conflict between individuality and character as stated by Herbart?

20. To what extent then can development of individuality be made the aim of education?

21. What is the basis of correlation of studies according to Herbart? What further reason can be assigned?

22. Which has the greater merit, the plan of concentration of studies or that of coördination of studies?

23. What is the difference in the psychological theory underlying the two? In the sociological theory?

24. Describe any particular concrete plan of concentration. Of coördination.

PHILANTHROPIC-RELIGIOUS MOVEMENTS FOR EDUCATION. — The growth of the systems of public schools, now supported by all advanced nations, has been along two lines of development, or rather through two successive stages. The first of these was the stage in which schools were supplied chiefly by private voluntary enterprise, from motives of religious and philanthropic character. While leaving the management in private or in quasi-public control, the state yet came to contribute to these very generally. The second of these stages is that in which the political and economic bearing of education receives general recognition and states accept the responsibility for general education of all of the people as one of the functions of government. The importance of this philanthropic stage varied with different countries. The more prominent of these philanthropic-religious school movements, as they entered as constituent elements into the formation of our own public school system, deserve notice.

Philanthropic-Educational Movement originating among the German Peoples. — Mention has already been made of the various philanthropic institutions founded by Francke at Halle, beginning with 1694, that developed into training schools for teachers, educational institutions of a practical character for orphans, and finally into the *real*-schools of the German states. The philanthropic movement under Basedow which, beginning with private institutions, led through the training of teachers and the production of a voluminous literature to the introduction of a study of natural phenomena, of more agreeable methods, and of a new and better spirit into the schoolroom, has also been noticed. Similarly the Pestalozzian movement had its philanthropic aspect. But with the establishment of the school at Yverdun, the chief attention of Pestalozzi, under the influence of his assistants, was directed toward the improvement of methods. The philanthropic aspect of the work was carried on by Emanuel von Fellenberg (1771–1844).

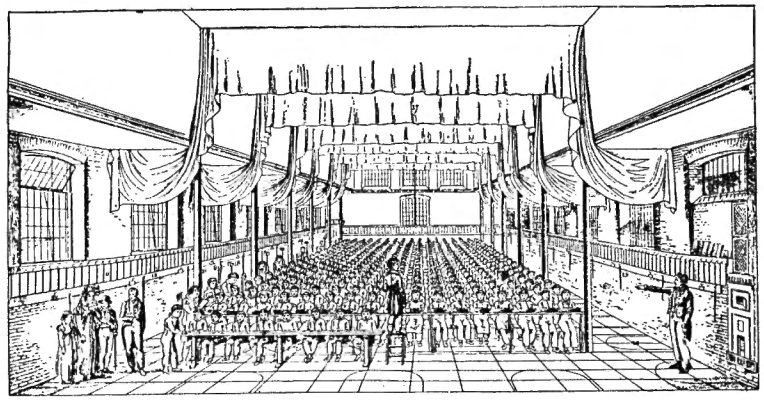
The Fellenberg Movement. — At Hofwyl, near Burgdorf, Fellenberg conducted most successfully, from 1806 to 1844, a school that was pronounced by so competent an authority as Dr. Barnard to have been the most influential school that ever existed. The pedagogical principles underlying the work of the school were similar to those of Pestalozzi, with whom Fellenberg had been previously associated in a school experiment. The sociological purpose of the Hofwyl school was twofold: first, to educate the youth of the peasant class in agricultural and technical pursuits, and in connection with these industries to give them the elements of an intellectual education; second, to bring the upper class into closer sympathy and understanding with the peasant class by educating them together. Therefore, two schools were established on an estate of some six hundred acres; the literary institute, which gave the ordinary classical education, and the practical institute, which gave the education of the peasant boys for more intelligent farmwork. Both groups of boys had school gardens, both were expected to work on the farm, one for training in future management, the other for future service. There was an agricultural school for scientific instruction, a printing press where the literature and music of the school were printed by the boys of the school, workshops where they made their clothing and agricultural and scientific instruments, and other similar institutions. In time there were established a school for girls and a normal school for teachers, where for a time all of the teachers of the adjacent city of Berne were trained. In almost every respect the schools seemed to be a parallel of those at Hampton, Tuskegee, and other places that are attempting a similar solution of social problems in the present.

From 1825 to 1840 scores of these "manual labor institutes" were established all over the United States. All, or very nearly all, the institutions of academic or collegiate rank that were established within these time limits, were founded

upon this basis. Many of these, such as Oberlin, soon developed into colleges. The majority of them were fostered by some religious denomination. While in these institutions philanthropic and religious motives were prominent, the pedagogical principles of Fellenberg were minimized. In the American literature that grew out of this movement but two motives were emphasized: one, the opportunity afforded by these institutions for a higher education at a lessened expense; second, the better health and consequently more active intellectual life produced by the course of life followed. With the improvement of the economic conditions of the country and the development of more of the formalities of social life, toward the middle of the century, the manual labor feature was dropped from most of these institutions. This feature had served one purpose, however, — that of making these institutions possible. The sociological aspect of the Pestalozzian movement that related to the development of educational institutions for the deaf, dumb, blind, maimed, and orphans, and of educational-reformatory institutions for juvenile offenders and first offenders, can only be mentioned.

The Monitorial Systems of Bell and Lancaster. — In 1797 Dr. Andrew Bell introduced into England a system which he had employed in an orphan asylum, that of using the older boys for the instruction of the younger. By him, and especially by Joseph Lancaster (1778–1838), the system was developed until it became for England a somewhat inadequate substitute for a national system of schools. Through the use of a few conduct monitors and a sufficient number of teaching monitors drawn from the more advanced students, and through a system of organization and of method, it was possible for one teacher to direct a large number of pupils. With Lancaster the ideal, which he himself realized before he was twenty years of age, was for one teacher to control a school of one thousand boys. Thus in the absence of any willingness on the part of the people adequately to support

schools, with the government opposed on principle to contributing for such purposes, and with the religious bodies wholly unable to cope with the needs of the times, the monitorial system made possible some general attention to public education. The Bell system found little or no footing in America, since it was connected wholly with the Church of England schools. The great service which the Lancasterian system rendered in our own country was in accustoming the people to schools for the masses of the people, to contributing



A Lancasterian Monitorial School, with Recitation Semicircles and Lesson Boards arranged around the Room.

to their support as individuals, and in gradually educating the people to look upon education as a function of the state. In addition to this it introduced a better system of grading, since all Lancasterian schools were rigidly graded on the basis of arithmetic work, and also on the basis of spelling and reading. Hence it was possible to promote in the one subject without in the other. Moreover, it brought in a better arrangement and classification of material and a better organization and discipline of the school. The great defects of this system were that the work was most formal; that most of the instruction was extremely superficial; that the discipline was rigid and

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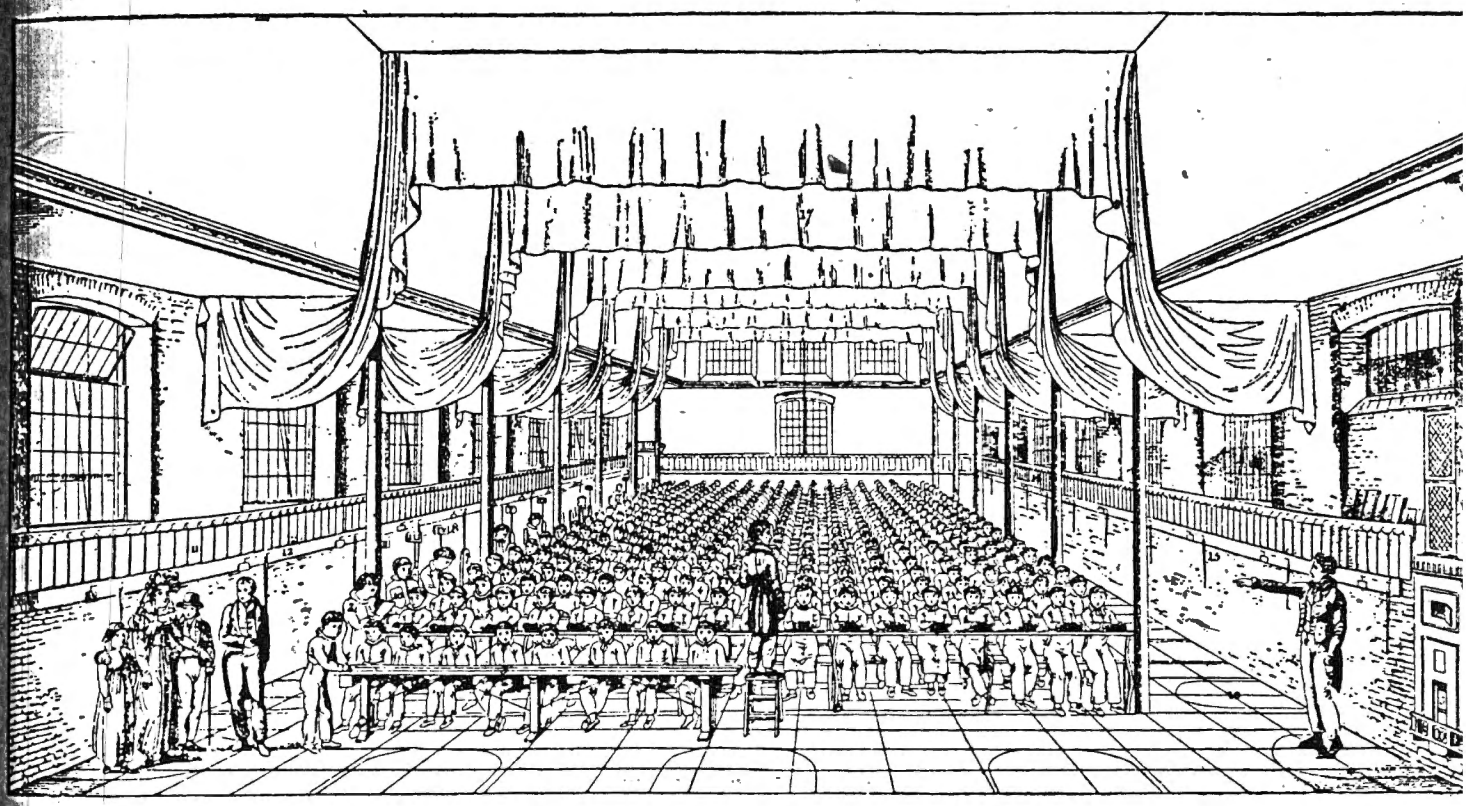

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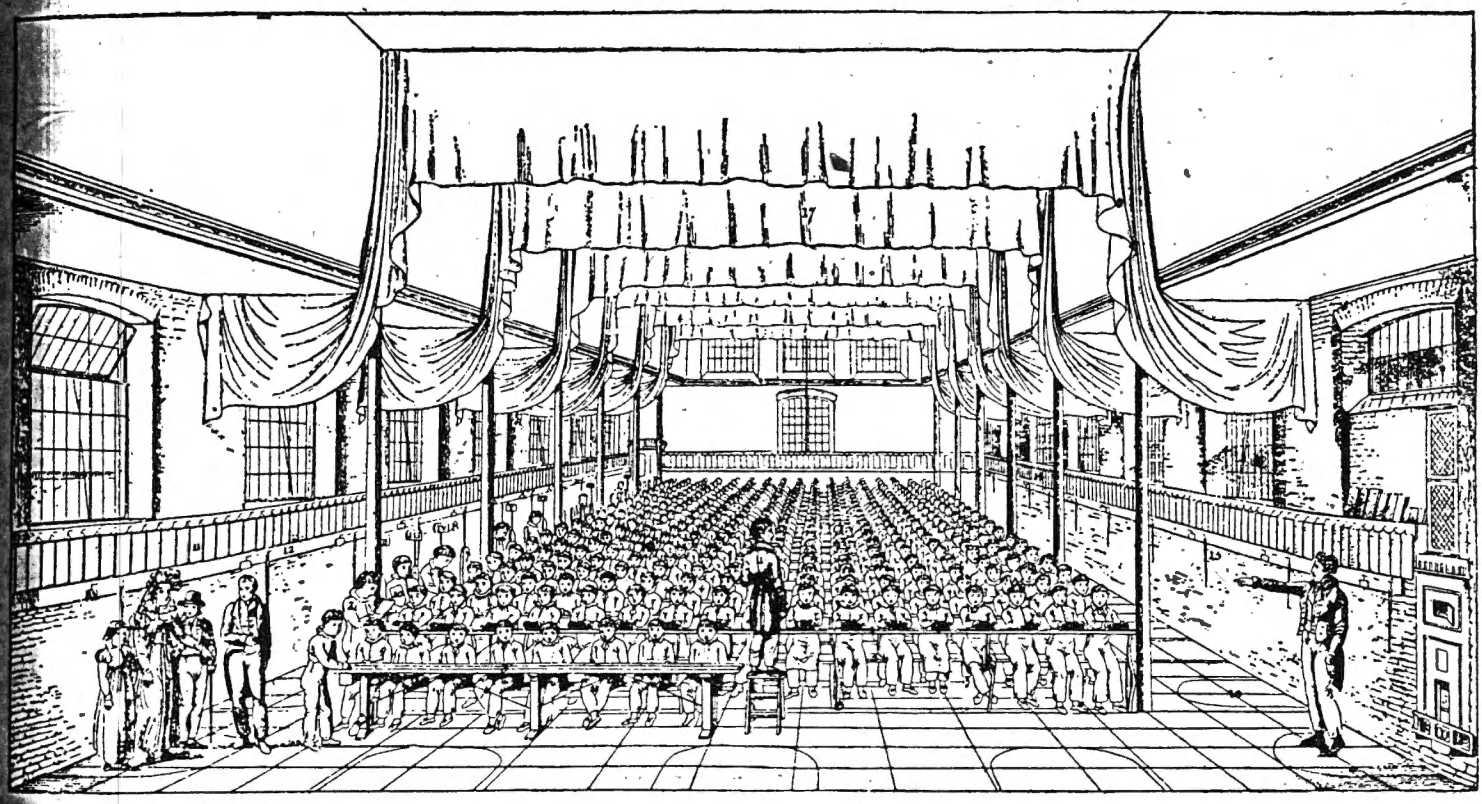

A LANCASTERIAN MONITORIAL SCHOOL, WITH RECITATION SEMICIRCLES AND LESSON BOARDS ARRANGED AROUND THE ROOM.

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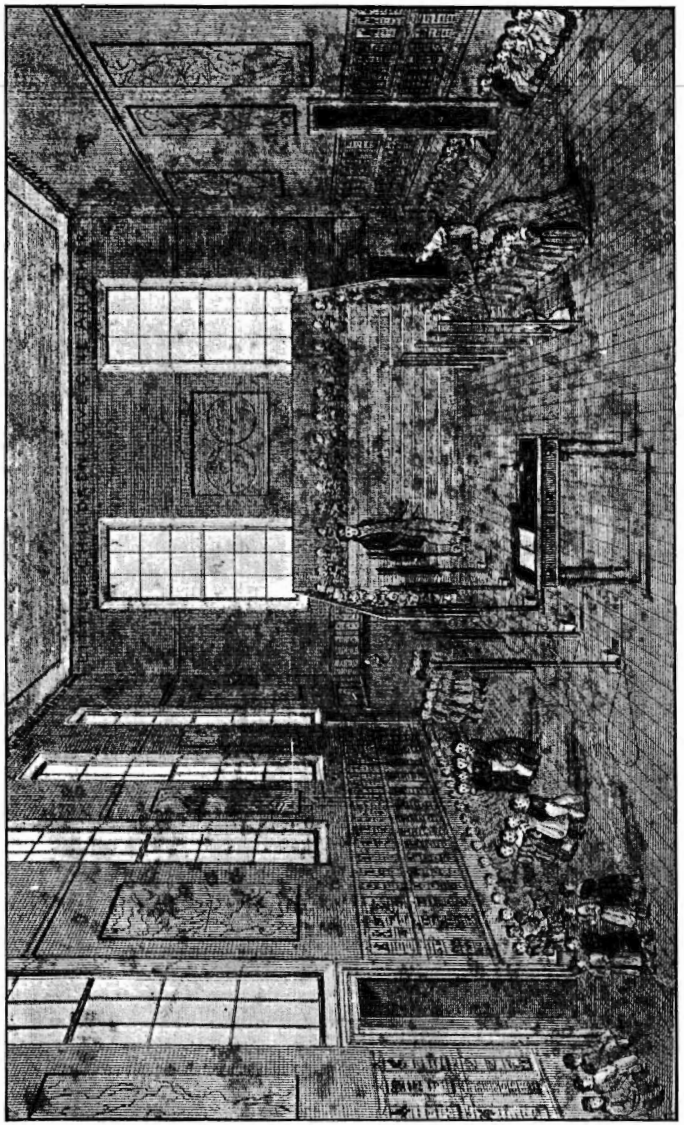
mechanical; and that the information gained was the result of formal memory work. There was absolutely no conception of the psychological aspect of the work and no intimation whatever of the newer, broader, and truer conception of education that was developing on the continent.

In 1805 the Lancasterian method was introduced into New York City. Within a few years almost every city from Boston to Charleston, in the South, and Cincinnati, in the West, had its monitorial or Lancasterian schools. Lancaster himself came to this country and assisted in the New York, Brooklyn, and Philadelphia schools. In the third decade of the century, the system was introduced in New York and Boston into a new type of schools, the newly founded high schools. For this and the two following decades the system was widely popular in the many academies throughout the country. As in the case of the Fellenberg system, with which it was often combined, the system disappeared in consequence of the arousing of public opinion on the subject of education, with the growing material prosperity of the people and their willingness to contribute more liberally to the cause of education.

The Infant School Movement was of similar import. Originating with a French country *curé* in 1769, these schools were soon introduced into Paris and became the progenitors of the *maternal schools*, so common in all French cities at present. In England the infant schools originated independently with Robert Owen about 1799 at New Lanark, Scotland, as a means of checking the evil effect of the factory system on children. The factories of England at that period employed a large number of children that were bound out to them by the poor commissioners, at five, six, and seven years of age for a period of nine years. As these children were employed from eleven to thirteen hours a day in the factory, and at the end of their apprenticeship were turned free into the ignorant mass of the city population, their educational condition can be imagined. The infant schools were con-



The Infant School: introduced into the United States, 1820–1830.

trived to meet this situation. In 1818 the new idea was carried to London by James Buchanan, the teacher of Owen's school, and soon in the person of Samuel Wilderspin found an enterprising exponent who was at the same time a voluminous writer. In 1834 "The Home and Colonial Infant School Society" was formed for the multiplication of schools based upon Wilderspin's ideas. Almost ten years before this time the schools had appeared in New York, and were soon imitated in most of the other large cities of the country. Even where public schools were established no provision was made for children of the earliest years; the monitorial schools in most places similarly restricted their *clientele*. In the early nineteenth century the public schools of Boston were forbidden to receive children who could not read and write. The Infant School Societies found abundant work to do in most cities. In many places, as in New York City, they were the progenitors of the primary department of the public schools; and to the present day, the independent organization of the primary department and the sharp division drawn for it in the school building is but a survival of the distinct origins of the grammar and primary grades.

Public School Societies in the United States.— All of these educational interests were promoted and by far the greater part of educational opportunity was furnished, by the organization of citizens into quasi-public societies. The history of schools in one city will serve as a type. With the exception of Church schools, and a school for negroes founded in 1787 and supported by the African Free School Society, there were no free schools in New York City until 1805. During that year, under the leadership of De Witt Clinton, the mayor of the city, a free school society, later called the Public School Society, was organized. The aim of this institution was to offer educational opportunities gratis to the children of the poor who were not provided for by the existing Church schools. The Lancasterian method of organization and in-

grants. Until 1903 no voluntary or Church school was permitted to participate in funds from local rates. By the law of 1870 compulsory attendance regulations might be adopted by district school boards; but until there were schools, such laws would be anomalous. By the law of 1880 compulsory attendance under ten was provided for; by that of 1899 the age was raised to twelve, and by that of 1900 the local boards were permitted to raise the age limit to fourteen. Until 1903 these two systems of state or "board schools" and Church or "voluntary schools" remained side by side. While the voluntary schools were yet more than twice as numerous as the board schools, in the number of teachers the latter had outrun the former; the number of pupils in each class was about the same. There were 5878 board schools with 38,395 teachers, to 14,275 voluntary schools with 29,283 teachers. The relationship of these two types of schools to each other and to the governmental grants remains the most prominent educational problem of England.

The United States. *Early Free Schools.* — It appears that from the latter half of the seventeenth century some of the town schools of Massachusetts were free in the modern sense of the term in that they were supported wholly by public taxation. Many of the early New England schools received their support from a variety of sources, such as the sale or rental of public lands, rental from fish weirs, from ferries, from bequest and private gift, from subscription, from local rates, and in nearly all cases from tuition of students. Wherever in the colonies it was customary for the local or colonial government to assist schools by grants or by taxes, it was also customary for the schoolmaster to supplement this small allowance by tuition charges regulated for the most part by common custom. As the schools established by the towns required some previous training on the part of those entering them, usually the knowledge of the alphabet or the ability to read, "dame schools" of a most rudimentary character

sprang up in great numbers. The government of the New England towns was a pure democracy, and the control of schools remained for a long time in the hands of the town meeting itself. Only gradually were powers delegated first to the selectmen and then, in the eighteenth century, to a school committee. Then the necessity for tuition fees from the pupil was replaced by a more generous assessment upon the town. Thus it happened that in Massachusetts by the middle of the eighteenth century, and in other New England commonwealths shortly afterward, elementary schools were for the most part free. These early systems of public or free schools were largely due to the religious devotion of the New England people and to the practical identity of Church and State.

The Educational Revival of the Early Nineteenth Century. — With the decline of the religious fervor and of the unanimity of religious belief in the later eighteenth century, interest in education declined also; the Latin grammar schools disappeared (p. 395); private schools — the academies — took their place; and the elementary schools became more minutely subdivided and less generously supported. The establishment of schools upon a politico-economic basis was a growth of the nineteenth century. Although this transition went on during the entire half century, it was concentrated in the period from 1835 to 1850, to which has been given the name of its leading agitator, [redacted]. Since schools were very generally supported by local taxation in Massachusetts, the reforms striven for by Mann as secretary of the Massachusetts School Board (1837–1849) were the abolition of the small district schools in favor of the better-supported, better-taught, better-equipped and more centralized town schools, a better preparation for teachers, the establishment of normal training schools, a longer school term, school libraries, an enriched curriculum, improved methods of instruction, and the building up of a spirit of educational enthusiasm among the people and of professional spirit

among the teachers. The immediate result of the labors of this first great organizer of American educational forces was that during his secretaryship the appropriations for the common schools were doubled, the wages of men teachers increased 62 per cent and those of women teachers 51 per cent; the relative number of women teachers increased 54 per cent; the annual school term was increased by one month; the ratio of private to public school expenditure fell from 75 to 36; compensation for school supervision was made compulsory, and hence both compensation and supervision increased and improved; fifty new high schools were established; the first normal schools in America were founded; school attendance increased; methods, discipline, and spirit of the schoolroom were changed vastly for the better. One great object which Mann sought for — the abolition of the district school system — was not accomplished (1859) until after his retirement from office, and not permanently until 1882.

This educational revival was not confined to Massachusetts; there were many leaders as able and some, such as Henry Barnard, as prominent as Horace Mann. Chairs of education were established in several colleges. Though there had been one state superintendent of education before this time (in New York from 1813), many states now established such an office. A movement toward the concentration of administration of school affairs began. Educational magazines were established and a voluminous literature appeared. Educational commissioners were sent abroad by several states; common school funds were established; and, above all, some progress was made, by the leaders at least, toward an appreciation of modern methods and the modern spirit in education. This latter came largely through a greater knowledge of and appreciation for the ideas and methods of Pestalozzi and of the German schools.

Modern State Systems of Education. — As with Germany,

there is no single system of education in the United States, but an independent system for each state. Yet the outline and general characteristics of these systems are much the same. The amalgamation, or development into consistent state systems, was an outgrowth of the revival previously discussed and of the establishment of the free school idea. The final establishment of the idea of free schools in the modern sense of the term was of quite recent occurrence. In New York the abolition of tuition in public schools was made by law in 1867. In New Jersey and Michigan it did not occur until the following year. In Pennsylvania the law was passed [redacted] and in Indiana it was embodied in the constitution of 1851. The free school system, thus developed, is constituted as follows: In every state the system of elementary schools offers instruction for seven, eight, or nine years, from the fifth or sixth year of age. In most states a secondary or high school course provides instruction for three or four additional years. In all except a few of the extreme eastern commonwealths, state universities offering free tuition to all, or to all from within the state, are to be found. In only a few states are the local communities compelled by law to furnish high schools or to provide in neighboring schools for all children who desire the advantages of a secondary school. Varying degrees of unification among these parts of the school system or in the administration of any particular part of it, as that of the elementary schools, exist. The same forces that worked toward the development of this system now work for the closer unification in administration. First among these is the influence of the general government exerted through the very generous gifts which constitute a bond of interest for all institutions that participate in the privileges. Thus since 1785 the government has given to the common school system 78,659,439 acres of land, valued at about one hundred million dollars, and for agricultural educational institutions an annual endowment which capitalized would amount

to a sum equal to the former one. A second factor is the influence exerted by the state government through the distribution of the revenue derived from common school funds, in most cases those growing out of the gifts of land from the general government and of the funds from state taxation. Such distribution has usually been so conducted as to call forth a greater effort of the local community in the matter of local taxes and to maintain higher standards of teaching efficiency than mere local control would have secured. The influence of state universities as the culmination of the public school system has been a yet further cause of unification. Undoubtedly the greater influence resulting from the building up of these state systems of public schools has been the education of the people themselves to a belief in the efficacy of education as a solution for many social problems, in the necessity of education as a basis of political stability and economic progress, and to a dependence upon education as the chief means of social and national progress; in other words, to an acceptance of the sociological conception of education. Along with this has developed a willingness to tax themselves heavily for the most general support of the public schools and a consequent tendency to greater centralization of administration and supervision as a means to greater efficiency. During the earlier part of the century there prevailed the idea that free schooling was a matter of charity and that it was pauperizing in its effect. Although that prejudice has disappeared with the growth of the free school system, there yet remains to be thoroughly inculcated the idea that for the welfare of the group as well as of the individual, the state may and should compel the attendance of every child for a period of six or eight full years. A further development of compulsory attendance laws, which have nowhere reached the stage of efficiency found in the leading European nations; a better preparation of teachers and a better supervision of their work;

a perfecting of the process of instruction and of the technique of instruction that these new ideas may be realized — such are the lines of development open to the public school system of the present.

THE INDUSTRIAL TENDENCY. — The politico-economic tendency until very recently has been dominantly political; it is now becoming dominantly economic. In order to understand one of the most prominent characteristics of present educational activities, this fact needs some further explanation. The agreement of the scientific and the sociological movement in their earlier effects on education has been mentioned. The fact that the basis for this early sociological movement was chiefly political and military can be illustrated by this one series of facts: with the exception of the school in connection with the royal mines at Freiburg, Saxony, the first institution for the higher education in engineering and other scientific lines was the Austrian Military School at Vienna, established by Maria Theresa in 1747; the French monarch followed with the school at Menzières within a year or two; and Frederick the Great established a *Ritter-Academie* of a similar character in 1764. The first school for scientific and engineering instruction in our own country was at West Point (1802). The first technical instruction of a public character in England was the outgrowth of the training of naval and military officers, and then not until the middle of the nineteenth century.

Until recently the training for citizenship that has always been assigned as a chief function of state systems of schools has been along political and social lines. The aim of education was to prepare the individual to exercise the right of suffrage intelligently, to perform the duties of citizenship fully and honestly, to discharge the duties of office satisfactorily. At least in our own country, with its democratic social structure, the emphasis in public education has been largely from this point of view. For several decades past in