## DEVELOPMENT OF MANUAL TRAINING IN THE UNITED STATES

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Development of Manual Training in the United States by H. Ross Smith

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## H. ROSS SMITH

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Trieste

## CONTENTS

PREFACE	5
CHAPTER I—HISTORICAL SKETCH	7
CHAPTER II-CONDITIONS WHICH LED TO THE INTRODUC TION OF MANUAL TRAINING; OBSTACLES WHICH RE	
tarded Its Growth	26
CHAPTER III-EFFECT OF THE INTRODUCTION OF MANUAL	
TRAINING UPON AMERICAN EDUCATION	46
CHAPTER IV-PRESENT DAY TENDENCIES	73
CONCLUSION	83
BIBLIOGRAPHY	88

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## PREFACE

It is the purpose of this thesis to trace out the development of Manual Training in the United States; to state the causes which were responsible for its introduction; to suggest the benefits derived; and to give some idea of the present trend of educational thought in regard to the subject. Much has been written in recent years about Vocational Education, Industrial Training, Technical Training, Mechanic Arts, and Trade Schools. Discussion of these forms of training does not lie within the scope of this paper, except when they are so interrelated with Manual Training that it is practically impossible to divorce them.

Domestic Science is not treated under a separate heading, but is discussed in its relation to Manual Training. Much that is said concerning Manual Training is true, also, of Domestic Science. What Manual Training is to the boys, Domestic Science is to the girls.

Much confusion has arisen among the uninitiated because of the different terms used, hence, it is of prime importance that the distinction between Manual Training and the other forms of training be made perfectly clear.

A Manual Training course, as outlined at the present time, consists of a graded course in wood, iron, and machinists' work; systematic and continued instruction in free-hand and mechanical drawing, combined with academic studies as co-ordinated departments. It is not the purpose of Manual Training to teach trades, but rather to make the boy familiar with the use of tools. It is disciplinary in that it endeavors to train the hand for the purpose of securing at the same time the training of the mind, through the senses of touch and perception. At the same time the eye is being trained to accurate observation. This training first found a place in the curriculum of the high

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### 6 Development of Manual Training in the United States

schools, but soon began to push its way down into the elementary grades. It is with these phases of our educational work that this investigation has to deal.

In the definition of the other terms, I conform largely to the definitions suggested by Dr. David Snedden, Commissioner of Education for Massachusetts, given in detail in Bulletin No. 12 of the National Society for the Promotion of Industrial Education.

Vocational Education is the most comprehensive term in use at the present time. It is defined as that phase of education whose controlling purpose is to fit for a calling or vocation. In its completeness it always involves at least two large distinguishable aspects—practice in the productive work of the calling itself and study of or about the sciences, art, mathematics, economy, history, or technique which enter into or relate to it. The first may be called the concrete or practical part of Vocational Training, the second, the technical or theoretical part.

Industrial Education may be considered as that phase of education whose controlling purpose is to fit for a trade, craft, or special division of manufacturing work. When defined in this way, it becomes but one form of Vocational Education.

Technical education is designed to be part of vocational education. Each vocation or group of related vocations may have its own body of technical studies or technical studies common to other vocations. Technical training may be considered, then, as that training which is derived from those studies which pertain to some particular art, science, trade, or the like.

Mechanic Arts education is a vague phrase describing activities carrying from Manual Training procedures through technical studies to fully developed trade education.

A Trade School is an industrial school in which practical work, at least as exercises, if not productive, is a prominent feature. Such a school is usually designed (except in the case of girls) for youths of sixteen or more years, corresponding to the customary age of admission to apprenticeship.

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## CHAPTER I

### HISTORICAL SKETCH

Certain of the principles underlying manual training, depending largely upon native instincts and ability, have always been practiced by man in his various activities. Under primitive conditions, children learned to perform their duties through imitation and by the aid of whatever assistance the parents might see fit to give. These duties required manual effort, without the aid of intellectual studies. As exchange markets came into existence, the divisions of labor became more and more definitely defined. As the divisions of labor multiplied, the Guild and apprenticeship systems were developed to train the beginners. These systems, however, have gradually died out, and, in their places, modern thought has demanded that the State should hold itself responsible for the instruction of the youth, no matter what pursuit in life he may elect. It is not my intent to trace this modern thought in detail, with the exception of the development of the movement in its relation to the public school system of this country.

It will be sufficient if mention is made of but a few of those who first advocated the introduction of manual work in the school room. As early as the beginning of the sixteenth century, Martin Luther emphasized the moral advantages to be derived, if manual work were required in addition to the regular academic studies. Commenius, 1592–1671, in "The Great Didactic," suggests that boys would better find out their special aptitudes if they were given a general knowledge of the mechanic arts.

The Catholic missionaries were emphasizing the manual aspect of education in America as early as 1629. The earliest schools within the present limits of the United States were established by the Franciscans in Florida and New Mexico.

### 8 Development of Manual Training in the United States

The instruction given in the schools in New Mexico was of a two-fold character: "Up to nine years of age, the children were taught reading, writing, catechism, singing, and playing on musical instruments. Spanish was also taught. A striking feature of this system of education was its practical character. From nine years of age on, the work of the pupil in school was almost wholly industrial. The common arts and trades of the civilized world formed the curriculum—tailoring, shoemaking, carpentering, carving, blacksmithing, bricklaying, stonecutting. The girls were taught to sew and to spin."<sup>1</sup>

In 1647 Sir Wm. Pelty suggested a plan for an Industrial School. He states: "Let in no case the art of drawing and designing be omitted, to what course of life soever those children are to be applied; since the use thereof for expressing the conceptions of the mind seems, at least to us, to be little inferior to that of writing, and in many cases performeth what by words is impossible."1 The recommendations of Rousseau, 1712-1778, in his Emile are so well known that it is not necessary to repeat them here. Kinderman, 1740-1801, was one of the first to put manual work into actual operation in the school. In 1771 he introduced, among the boys and girls in his Bohemian parish, practical instruction, which dealt particularly with their local occupations. During the latter part of the eighteenth century and the beginning of the nineteenth, Arnold Wageman, Dr. I. G. Krunitz, Fichte, and others made important contributions toward the development of the sentiment that boys and girls would be greatly benefited by receiving instruction in practical subjects.

Special mention should, no doubt, be made of Peletier, Froebel, Pestalozzi, and Cygnaeus. "In 1793, Robespierre proposed to the National Assembly of France a bill for a new educational scheme, prepared by Michael de Peletier. The plan aimed to instill the duty of the habit of work, not as thorough knowledge of any special trade, but as the development of that

<sup>&</sup>lt;sup>1</sup>J. A. Burns, "The Catholic School System in the United States," pp. 41 and 42.

Barnard's "American Journal of Education," Vol. XI, p. 202.

### Development of Manual Training in the United States

energy and industrious activity which characterizes earnest, diligent persons. Peletier says: 'I consider this part of education the most important, and, therefore, my plan of general instruction contains manual labor as its vital feature. Of all the means likely to stimulate the average child, none will produce a greater desire for activity than physical work. I would desire that various kinds of handicraft work might be introduced.""

The story of Pestalozzi's life is a life of unceasing devotion and self-sacrifice to a cause to which he consecrated himself. It was his aim to help the poverty-stricken children particularly, and by the aid of his educational scheme, to aid and uplift them and prepare them for their proper places in society. His first attempt was at Neuhof, where, during the first year, the children "made considerable progress with their manual work, as well as with the lessons that were joined with it, taking great pleasure in both. All they did and said, moreover, seemed to express their appreciation of their benefactor's kind care of them."<sup>4</sup>

In the course of an appeal he made in 1776, Pestalozzi states: "I promise to teach them all to read, write, and cipher; I promise to give all the boys, so far as my position and knowledge will allow me, practical instruction in the most profitable methods of cultivating small plots of land, to teach them to lay down pasture land, to understand the use and value of manures, to know the different sorts of grasses and the importance of mixing them;—it will be the household needs, too, that will give the girls an opportunity of learning gardening, domestic duties, and needlework."<sup>s</sup>

When Pestalozzi was given charge of the poor house at Stanz, his plan was warmly recommended by the members of the Directory, which issued a decree which provided among other things that "the time of the pupils will be divided between field work, house work, and study. An attempt will be made to develop in the pupils as much skill, and as many useful powers as the funds of the establishment will allow."<sup>6</sup>

<sup>\*</sup> Row, "The Educational Meaning of Manual Arts and Industries," p. 29.

<sup>\*</sup>De Guimps, "Pestalozzi-His Life and Works," p. 55.

<sup>.</sup> Ibid., p. 57.

<sup>.</sup> Ibid., p. 133.