

TECHNICAL INSTRUCTION VS. APPRENTICESHIP.*

By HON. CARL SCHURZ.

In inviting me to address a few remarks to you on the occasion of this anniversary, the President of the Hebrew Technical Institute has done me an honor which I highly appreciate, for I regard the enterprise in which you are engaged, not only as a benevolent one, but as of high public importance. Let me say at the outset that, as a matter of principle, I am not in favor of giving institutions of this kind, a sectarian character. But there is in this case a reason for admitting an exception, the force of which I am compelled to recognize. For centuries the Hebrews have had the reputation of being generally addicted to the pursuit of trading, large and small, and averse to manual labor. And we all know that reputation not to have been groundless. It might easily be shown how this tendency and habit had naturally resulted from the peculiar situation in human society into which the Hebrews had been forced, and in which they have been kept for many generations, and that the effect of the same causes upon other nationalities would most probably not have been very different. But it is not the cause, it is the resultant fact, the present character of the Hebrew population we have to consider. And doing this we must admit that to overcome these traditional habits and inclinations, to make young Hebrews manual workers instead of traders, may indeed require some special inducements of a sectarian character, such as this technical school presents. If the Hebrews of this great metropolis, in spite of the adverse hereditary tendency among their people, do succeed in educating among themselves a class of efficient and prosperous artisans, no fair-minded man will find any fault with them for having made this school a Jewish institution. On the contrary, they will have set to the whole country a good example, and should be thanked for it. That example will be all the more valuable as, in fact, not only among the Jews, but among all classes of people in America, of the younger generation, the tendency to turn away from manual labor and to adopt occupations which appear to open to a man the possibility of living upon his wits, is growing and spreading in an alarming degree.

We are in the habit of pointing to popular education as a panacea for the ills of human society. This is well enough, provided we have the right kind of education to point at. In this respect we should not be blind to the fact that the aversion to manual labor among our young people has grown up under the very system of popular education we now have. The impression is spreading among them that education is to teach them, mainly, how to get along in life, and if possible how to get rich without hard work. How many boys without means are there, who, having learned to write a good hand, think it beneath them to make a living in any other way than with their pens, or having learned to add up sums and to calculate interest, would think themselves degraded if they did any rougher work than mark prices on goods or keep books, and doing this, wear nice clothes, and keep their hands white! And thus it is that the young men, shunning farm and workshop, crowd the cities and haunt stores and counting rooms for

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employment in constantly increasing numbers, while it is a notorious fact that the American people, the people born and raised upon American soil, turn out so small a proportion of artisans and manual laborers generally, that we have to look in a large measure to foreign immigration to supply that want of society.

The cause of this phenomenon first suggesting itself, we find, of course, in the fact that human nature generally is inclined to work as little and to enjoy as much as possible; that most people, when they have the choice between the plough or the working bench on the one hand, and an easy chair on the other, will prefer the easy chair, and that especially in a free country, poor people, principally the young, if they cannot in all things live like the rich, want at least as much as possible to look like them. But it is also true that our popular school education fails to counteract that tendency, for it does not stimulate the ambition and cultivate the faculties for manual work by appropriate impulse; and, further, that apprenticeship, in the ordinary sense, has lost its best educational features.

The modern efforts of industrial production, the production by machinery, has in most of its branches led to an infinite subdivision of labor. The labor of the individual working man is confined to a few manipulations, usually producing

things which are only parts of the product as it issues from the factory; a wheel of a watch, a leg of a chair, a spring of a lock, a trigger or a hammer of a gun; and he is a good working-man who makes that thing with neatness and dispatch. His knowledge is not required, his ambition is not stimulated beyond that. As his hand grows more dexterous in the uniform work, he is apt to become a more and more unthinking, undesigning, unplanning part of a machine.

What will become of the poor boy who, without special advantages, without a powerful protector, enters that shop or factory as an apprentice? His hand will be trained to the same few manipulations, his mind will be kept within the same narrow circle of ideas, his ambition will be turned to the earning of wages by making with neatness and dispatch that same watch wheel, or chair leg, or lock spring, or gun hammer, with very little prospect of advancement to a larger field. Of course there are exceptions, but they are owing either to very uncommon ability, or to advantages of instruction outside of the ordinary apprenticeship, or to influence and protection. Thus neither in the public school nor in the hard career of the apprentice does the poor boy, who has the stuff for a skilful artisan in him, receive the needed help and encouragement.

Now, to supply that for which public school education ought at least to give an impulse, which it does not give—certainly not yet, whatever may be hoped of the future—and to make apprenticeship in the ordinary sense unnecessary, or rather to furnish far more than apprenticeship would furnish, that is the aim of the industrial training school as we have it before us.

I had the pleasure of being present at the anniversary exercises of the Hebrew Technical Institute last year. I then examined its doings and have read its reports since. I have endeavored to understand its purposes and its methods, and it gives me heartfelt pleasure to say that, with very small means, it has already achieved most gratifying results, and that, if supported as it ought to be, and if conducted farther with judgment, zeal and energy, it will prove one of the most useful educational institutions in the country. Supplying as far as its influence reaches, a distinct and urgent want of our civilization, it will not only benefit the young men educated under its auspices, but by showing what effects can, by such education, be produced upon a class of people who, so far, have been thought to be especially averse to manual labor as a

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means of livelihood, it will set an example which cannot fail to attract attention and to find fruitful imitation in a much wider circle.

Observe what the Technical Institute is doing. It takes boys still within the ordinary school age. It does not proceed upon the assumption that the elementary branches of knowledge which are taught in the public school have already been mastered. It continues the instruction, filling the gaps without burdening the young mind with unnecessary detail, and adds further instruction in those things which have a direct bearing upon the technical work to be studied. Without attempting higher mathematics, it teaches the pupil how to calculate his quantities and measurements. Without diving into the depths of physical science it makes him conversant with the physical properties of the matter he may have to handle. Without trying to make of him a great artist, it teaches him that art which is indispensable to all who strive to become truly skilful workers, the art of drawing so that he may be able correctly to design what he means to make, and to read correctly from design what has been made by others.

At the same time it puts into his hands the tools of the joiner, the carpenter, the moulder, the metal worker. It makes him understand their various uses by immediate practical application. It shows him the things which are produced with those tools, every part of them in its relation to the whole. It gives him opportunity for developing and testing his own skill in the employment of those tools and in the production

of things of use or ornament. It does not, in teaching, confine him to things which have been made before, but it teaches him to learn more and to find out new things for himself. It opens to him as free and large as possible a view of the field upon which the skilled artizan is to exercise his faculties. Thus it makes manual labor intellectually attractive, and stimulates ingenuity as well as honorable ambition.

It is impossible not to see the immense advantage of this method of instruction over the ordinary apprenticeship. The apprentice has in most cases first to go through a course of mental drudgery which teaches him nothing—unless it be how to abuse other apprentices when he comes to have any under him—which uselessly consumes his time, and which not seldom impairs his self-respect. The pupil of the Technical Institute, child of poor people though he be, enters at once upon the exercise and development of his natural abilities.

The apprentice is not unfrequently confined to the learning of a few manipulations, the practice of which is to earn him his wages through life, his activity always to run in the narrow grooves of that one trade in which he started. The pupil of the Technical Institute is educated upon the important principle that if he is to become a really accomplished workman in any branch, his knowledge of tools and processes must go beyond the line of work in which he is immediately engaged, so that he may have a knowledge and appreciation of many things, and of each in its proper relation to the other.

The apprentice when once started in a particular line, will usually remain in it, no matter whether he be best fitted, by natural inclination or otherwise, for this or some other kind of work. The pupil of the Technical Institute, during the first two years of his term, becomes acquainted with a variety of occupations; he has ample opportunity to find out for himself, and to show to his teachers for which of them his ability and his liking give him the greatest aptitude, and in the third year he chooses that which upon trial attracts him most, and in which he is most likely to be successful.

When the pupil leaves the institute, young though he be, he is no longer an apprentice, but a working man fit for responsible employment. I do not say that he then knows everything which an accomplished workingman should know; but he has a variety of knowledge which the ordinary workingman hardly ever acquires, and he has learned what is important above everything else—he has learned how to learn more.

Neither do I say that the Hebrew Technical Institute has in all things reached as high a degree of perfection as is desirable. In several respects it is no doubt capable of improvement, as I am sure its capacity for improvement, as to financial resources, is very great indeed. But something has recently happened which may be accepted as proof that, if an effort be made to secure to the institute the improvements it needs, that effort will be bestowed upon an object very worthy in itself and exceedingly promising for the future. Three weeks ago a Childrens' Industrial Exhibition was held under the auspices of the Industrial Education Association. At that exhibition the pupils of the Hebrew Technical Institute, who had been less than two years under its training, obtained fourteen prizes—as I am informed more than any other school—and prizes, too, for objects in the most important branches of technical work.

There was a little fellow fourteen years old who exhibited a box window frame he had made, with sash and blinds complete, and weights constructed from his own pattern. There was another twelve years old who made a model of a grain elevator from his own conception; and another but little older, who having seen a drawing in the *Scientific American*, actually constructed a loom after that drawing, never having seen such a machine in reality, and upon that loom made by him, he himself wove a little piece of silk. And there were still others, all between the ages of twelve and sixteen, who made models of a windlass, a hydraulic press, a

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