

The Act very properly makes a marked distinction between the objects allied in its title. "Technical instruction" is defined as "instruction in the principles of science and art applicable to industries, and in the application of special branches of science and art to specific industries or employments," while it does not exclude "such instruction in the use of tools and appliances as is necessary to the full illustration of the application of any branch of science or art to any specific industry or employment." Such instruction cannot be "elementary" in the sense attached to "elementary school," and, in so far as the practical and specific features become prominent, it merges into "trade instruction," which may or may not restrict its operation to those who are already working at a trade either as apprentices or as journeymen.

Technical instruction as so defined bears a relation to primary education inasmuch as primary education is required for its foundation, especially in arithmetic, drawing, elementary geometry, and elementary science; but it cannot be regarded as in any way a substitute for primary education; nor is it suited to any but a few of the oldest of the children in attendance at a primary school. The Act no doubt gives the Education Board the right to control the technical instruction in its district, if it chooses to assume the responsibility; but the duty of the Board in this respect is not so clear, and the financial provisions of the Act will require considerable modification before the responsibility can be assumed with safety. For the present we are of opinion that technical instruction had better be left to private enterprise with certain assistance from the public funds. In any case such instruction must from circumstances of population be for many years more or less fragmentary in character and confined within the limits of a modest ambition. By those who think differently the statement made by Mr. Llewelyn Smith in a report of 1892 to the London County Council, to the effect that the "annual loss in carrying on one of the 'Polytechnic Institutes' is, on an average, £5,000," may be studied with profit.

"Manual instruction," as understood by the Act, stands on quite a different footing, and is specially applicable to the primary school. The purpose of such instruction is not stated, and perhaps the expression is not very happily chosen; for "manual instruction" means properly mental training through manual instruction, and only in so far as its methods serve the purpose of such training can it claim for itself a place in the ordinary elementary course. That it may be made to play an important part in elementary education few will deny, and, in so far as the circumstances of our schools will admit, we are anxious to do what little we can in the encouragement of any efforts in the new direction that may be made.

Manual training, as we prefer to call it, may to a certain extent concern itself with the same matters as technical instruction; but the purposes of the two are to be widely differentiated, and to admit any mental confusion on this point is to misunderstand the whole question. Manual training does not aim in any way at the application of the principles of science and art to specific processes; still more foreign to its purpose are the objects of a trade school; the lessons do not even fulfil their design if they secure merely a certain general manual dexterity, though this in itself is valuable. In the words of an excellent and most interesting report presented by Mr. Inspector Struthers to the Scotch Education Department, and reprinted in New Zealand for the use of teachers and others, "So far as the elementary school is concerned, manual training is to be valued not so much for its direct results, important though they may be, as for its disciplinary effects—that is to say, for the contribution it makes towards the development of character and intelligence." "Well-arranged and properly-conducted work of this kind—the qualifications are most important—is regarded as a very valuable, in some respects the most valuable, means available to the teacher of developing in the pupils such qualities as intelligence, practical judgment, exactness, perseverance, taste, power of initiation, individuality"—a statement which the report amply bears out by convincing reasoning and illustration. To secure such a disciplinary result is worth a sacrifice; and, when we have a demonstration by the same authority that "there are grounds, both in theory and experience, for believing that manual training of a certain kind and amount promotes rather than retards advancement in the ordinary subjects," the experiment, if experiment it may be called, may well engage the earnest attention of all interested in the schools of the district.

Beyond the ordinary subjects of the syllabus, among which drawing, one of the most important instruments of manual training, is of course included, nothing has so far been done in the district in the desired direction except in a few isolated cases where the master, having himself some skill in a manual occupation, has interested himself in cultivating the taste among his pupils, and in a few large infant departments where a short period weekly has been devoted to the simplest forms of manual work—stick-laying, paper-folding, plaiting, colouring—to a certain extent in connection with lessons in drawing or counting.

In the infant department, where freer conditions of method and subject, due to the absence of a prescribed syllabus, exist, the beginnings are most easily made; and little more difficulty should be found in adapting suitably graduated exercises to the First and Second Standard classes where the prescribed programme is limited to a few subjects, and much time must now be wasted in profitless repetitions. All this may be expected to be done during the usual school-hours, and in intimate relation with existing subjects; but when we approach the Third Standard the question of the time-table assumes a more serious aspect; and, although the occupations contemplated must, if they serve the chief purpose for which they are instituted, facilitate the ordinary standard progress, and therefore secure as good a result in less time than before, we are too conscious of the possibility of futile effort, the result of limited experience, and too anxious not to burden teachers whose powers are already severely taxed, to urge the introduction of additional work. Perhaps the difficulty—which extends also to the Fourth Standard—may in time find its own solution, and in the meanwhile something may be done without undue pressure by an extension to these standards of card-modelling practice in connection with drawing-lessons. In the Fifth and Sixth Standards likewise we cannot see how appropriate manual practice can be wholly included in the usual five hours of instruction; but the pupils have then arrived at an age when an hour or two extra time weekly spent in a workshop may prove an agreeable relaxation, and the physical and