In the evening classes in science, art and technology, which have been established throughout the United Kingdom, the workman or foreman engaged in any manufacturing industry has the opportunity, by payment of a very small fee, of studying art in all its branches, science theoretically and practically, and the technology of any particular industry. Provided his early education enables him to take advantage of this instruction, no better system has been suggested of enabling workmen, whilst earning wages at an early age, to acquire manual skill by continuous practice, and at the same time to gain a knowledge of the principles of science connected with their work and explanatory of the processes of the manufacture in which they are engaged.

For those engaged in handicraft trades this evening instruction is equally valuable, and not only in England, but equally in other parts of Europe, there exist evening trade schools in which the workman is able to supplement the “ sectional" practice he acquires in the shop by more general practice in other branches of his trade. In Vienna, for example, and elsewhere in Austria, there are found practical evening classes for carpenters, turners, joiners, metal­workers and others. Throughout Europe schools for weaving, with practical work at the loom and pattern-designing, have existed for many years.

To provide a training more like the old system of apprentice­ship, schools have been established in many parts of Europe and in the United States which are known as professional, trade or apprenticeship schools *(écoles professionelles, écoles des apprentis, Fachschulen).* The object is to train workmen; and the pupils, after completing their course of instruc­tion in such a school, are supposed to have learnt a trade. The school is the substitute for the shop. In such a school the pupils have the advantage of being taught their trade systematically and leisurely, and production is made subsidiary to instruction. Under such an artificial system of production, the pupil is less likely to acquire excellence of workmanship and smartness of habit than in the mercantile shop, under the strain of severe competition. More­over, the cost of maintenance of these schools renders it impossible to look to them as a general substitute for apprenticeship. By sending into the labour market, however, a few highly trained workmen, who are absorbed in various works and exert a bene­ficial influence on other workmen, these schools serve a useful purpose. Schools of this kind have been tried with more or less success in different countries. In Paris there is the well-known École Diderot for the training of mechanics, fitters, smiths, &c. ; and similar schools have been established in other parts of France. For many years a society of Christian Brethren has directed a large school situated in the Rue Vaugirard, Paris, in which different trades are taught. All the secular and general instruction is given gratuitously by the brothers, and in the several shops attached to the school skilled workmen are employed, who instruct the pupil apprentices, and utilize their labour. This system combines many of the advantages of shop work and school work, but it depends financially for its success upon the religious spirit which actuates its promoters and supporters. The Artane school, near Dublin, is conducted on somewhat similar principles, but is intended for a lower class of children. In Austria, particularly in the rural dis­tricts, there are numerous day schools for the training of carpenters, joiners, turners, cabinetmakers, workers in stone and marble, in silver and other metals, &c. Schools of the same class are found in Germany, Italy and Holland, and schools very similar in char­acter have been organized to a limited extent in England. The demand that called them into existence in other parts of Europe and in America has been felt in the United Kingdom. The diffi­culty of securing for apprentices in a commercial shop systematic training in handicraft has led to the establishment of a few trade schools which receive children from the elementary school about the age of thirteen for a three years’ course of instruction. In these schools the time is about equally divided between ordinary school subjects and the practice of some handicraft, such as cabinet-making, upholstery, waistcoat-making, millinery. Parents are encouraged to allow their children to receive this further education by the offer of free teaching and maintenance grants. Such schools, how­ever, must be regarded as educational experiments, to be superseded if found necessary by reason of changes in the conditions under which the trade is practised. Any system of technical education, however, should be sufficiently elastic to permit of such experi­ments and of the introduction of types of instruction to meet special and even temporary needs. It is only in certain cases that apprenticeship schools can be said to answer satisfactorily the purpose for which they have been established. Where a new industry, especially in rural districts, has to be created; where decaying industries need to be revived; where machinery is superseding hand work, and, owing to the demands for ordinary hands, there is a dearth of skilled workmen ; where through the effects of compe­tition and other causes the trade is carried on under conditions in which competent workmen cannot be properly trained in the ordinary shop,—in these cases, and in various art industries, an apprenticeship school may prove to be the best means of train­ing workmen and of advancing particular trades. Generally, an apprenticeship school should be looked upon as a temporary expedient, as a form of relief applied at the birth of a new industry or to meet some special conditions under which a trade is practised. The proper training school for workmen is the factory or shop.

In the United States there are only a few schools which have been specially organized with a view to the training of workmen for special trades. The line between technical and general educa­tion is not very clearly defined in any of the states’ schools. It is also difficult to give any such general review of the system of education in America as can be presented in connexion with France or Germany or Italy, owing to the fact that each separate state has its own organization, over which the Federal government exercises no direct control. In none of the states is technical education differentiated by class distinctions to the same extent as in continental countries. The ambition of every workman is to become a master, and this general ambition gives rise to an enthusiasm for education among all classes, which does not exist to the same extent in any other country. In the United States arc found evening technical schools and schools of design for those who have passed from the common schools into commercial work; but the desire for further instruction is so marked that many of those who have received only an elementary education endeavour, by working during the vacations, or by other means, to save enough money to attend the higher technical schools, and so acquire the necessary skill and knowledge to improve their position in the factory or workshop.

2. *Foremen.—*The foreman must be familiar with the various branches of work he is to overlook; and the training which the workman receives in the factory or shop affords him but scanty opportunities of obtaining this general knowledge. The foreman needs also a generally superior education. How then are foremen to be trained? The problem is somewhat easier than that of training workmen, because the number required is fewer. The variety of schools in Europe devoted to this purpose is very great. There are three distinct ways in which foremen are being trained.

*(а)* The evening technical classes in Britain and on the continent offer to ambitious workmen an opportunity of acquiring a know­ledge of other departments of the trade than those in which they are engaged, as well as of the scientific principles underlying their work. These classes serve the double purpose of improving the workpeople and of affording a means of discovering those who are best fitted to occupy higher posts.

(*b*) Special schools have been established for the training of fore­men. There are many schools of this kind in which selected boys are received after leaving the higher elementary or secondary school. The best known are those at Chalons, Aix, Nevers, Angers and Lille in France. These schools are intended for the training of foremen in engineering trades. They are state institutions, in which practical mechanical work in the shops is supplemented by theo­retical instruction. The first of these schools was founded in 1803. The course lasts three years, and the students spend from six to seven hours a day in the workshop, and are trained as fitters, founders, smiths and pattern-makers. As in all such schools, saleable goods are produced, but, as production is subordinated to instruction, the school does not bind itself to deliver work at a given date, and therefore does not compete with any manufacturing establishment. The students on leaving these schools are com­petent at once to undertake the duties of foremen and draughts­men. At Komotau, Steyr, Klagenfurt, Ferlach and many other places schools have been established on somewhat similar prin­ciples. In Germany there are special schools for the training of foremen in the building trade, which are chiefly frequented in the winter, and numerous schools are found in all parts of the continent for the training of weavers. At Winterthur in Switzerland a school has been established the main purpose of which is the training of foremen. In Italy there are numerous technical institutes, the object of which is to train young men for intermediate posts in industrial works. In London, the Finsbury technical college of the City and Guilds of London Institute has a day department, the main purpose of which is the training of youths as foremen, works managers, &c. ; but in this school the character of the instruction deviates considerably from that given in French schools, and aims rather at preparing youths to learn, than at teaching them their trade.

(*c*) A third method adopted for the training of foremen is by encouraging selected children of the ordinary elementary schools to continue their education in schools of a higher grade of a technical character. It is thought that, by developing to a higher degree the intelligence and skill of those children who show aptitude for scientific and practical work, they will be able, when they enter the shop, to learn their trade more quickly and more thoroughly, and to acquire that general knowledge of their work, and to exhibit those special aptitudes, which may qualify them for the position of foreman or overseer. The education given in these schools, although having some bias towards the future career of the pupil, is disciplinary in character, and consists of the subjects of primary instruction further pursued,—of drawing, modelling, science, mathematics and manual exercises. The curriculum is varied according to local requirements, the technology of the. staple in­dustries forming in many cases part of the instruction. Such