

The certificate given in any case to a student of a registered class bears the name of his school, and is countersigned by his teacher, and on that account is considered to have a special value. What is called the full certificate in any subject is reserved for those who can show that they possess the knowledge of pure science that constitutes the proper foundation of their technological knowledge.

Besides the examinations in trade subjects there are examinations of Board-school teachers who have attended normal training classes in woodwork and metal-work. In 1894 there were 152 classes of this kind, with 3,015 students; 1,816 came up for examination, and 1,256 passed. The Institute has found that the best teachers in woodwork are primary-school teachers specially instructed in the subject, but is not certain that the same rule applies to metal-work. As teachers of normal classes of manual work capable artisans who have carefully studied the school programme of manual instruction are preferred. The Institute will not recognise normal classes held during three or four weeks of vacation.

5. *Prizes*.—In 1894 the value of money prizes distributed by the Institute—for the most part provided by individual guilds—was £395 10s. The other prizes were medals, eighty-seven in silver, and 138 in bronze, given by the Institute.

6. *Money Grants*.—Formerly the Institute granted subsidies to technical classes, the principles of distribution being nearly the same as those observed by the Science and Art Department; but on account of the growing expenditure on examinations it ceased in the year 1891 to give pecuniary aid to schools outside of London. But the County Councils in most places came to the rescue, and they distribute their grants according to the results of the examinations conducted by the Institute. Further, the Science and Art Department recognises all the subjects in the programme of the Institute as subjects with respect to which classes may be subsidised under the Technical Instruction Acts. The Institute now grants to registered schools in London for every pupil who, being actually engaged in a trade, passes an examination in a subject bearing on his trade, a subsidy of £2 for a first-class pass, or of £1 for a second-class pass, and £1 for a subsequent first-class. The number of pupils examined under this rule (in 1894) was 2,580, of whom 859 passed.

7. *Cost of Examinations, Prizes, and Grants*.—Expenditure and receipts on account of examinations, omitting fractions of pounds, are as follows: Paid to examiners, £1,249; inspection, £262; printing and advertising, £943; materials and sundries, £506; Inspector-General and subordinates, £1,684; grants to seventeen London schools, £665; medals and prizes, £86: total, £5,399. Examination fees, £1,275; inspection fees, £204; special reports, £8; sale of prospectus and advertisements, £110: total receipts, £1,599.

In 1894 the grant from the Institute to the Joint Committee of Manual Instruction [see New Zealand Parliamentary Paper of this year, E.—1c.] was £250. In 1895 the section of metallurgy at King's College received £200; the Society for Promoting the employment of Women, £70; a school of chromo-lithography, £25.

## 2. Colleges and Schools of the Institute.

1. The Central Technical College: The aim of the College is to give practical instruction in the application of the different branches of science to the various manufacturing industries. It is attended by students who desire to become teachers in technology, or to become engineers, architects, or manufacturers, or to acquire a scientific knowledge of the principles of the industry in which they are engaged. It was opened in 1885. Built for about two hundred students, it is already too small. In 1891 the Institute voted £5,000 for the improvement of the appliances, but what is most needed is more room. There are laboratories for chemistry, physics, and electricity, and the students have workshops at their service, and can attend to the boilers and manage the engines. There are separate rooms for photography, optics, and experiments in heat and magnetism, &c. Courses in theory are merely accessory; practice is paramount. The vast museum of South Kensington is close at hand, so that the Institute has no occasion to set up scientific collections of its own.

In 1880 the most applicants for admission were thirty; in 1893 there were 122. An entrance examination must be passed. A full course covers three years, but students may enter for single classes. The first-year students have a common course, though at the outset they must say which of the four sections they enter for: (1) Mathematics and mechanics; (2) civil engineering and mechanics; (3) physics and electricity; or (4) chemistry. Specialisation begins with the second year, and constantly becomes more marked up to the end of the full course. The fee for a full course is £25 a year; for a partial course, £4 to £10 a year. In 1893-94 there were 186 students following the full course, and thirty-six attending selected classes. They attend five days a week, from 10 till 5, with an hour's recess at noon.

The College does not profess to render unnecessary the customary sojourn in the factory or yard—for which a young man has to pay an employer perhaps £40, perhaps £80 a year. It has recognised the necessity of this stage in a young man's career, and has made some provision for it by giving to some of its old pupils bursaries of £40 or £50. On Saturdays there is a special class, to prepare primary-school teachers for the work of manual instruction. A school of wood-carving is installed on the second floor of the college. It has day classes and evening classes. The day classes constitute a true "apprenticeship workshop." The course extends over three years and a half; there are eighty or ninety pupils, from thirteen years old and upwards. The County of Kent gives scholarships to be held in this school. In this age of luxury and of revived artistic sentiment, the art of wood-carving has a great future before it. The evening classes are attended by workmen and apprentices. The expenses of the school amount to £11,379, and the fees to £4,670.

The site, buildings, and fittings of the Central Technical College cost more than £90,000.