electric wiremen and fitters, and it is hoped to extend the same methods to other branches of the school work, so as to give the greatest practical value to certificates granted by the

## Commercial and Literary Department.

In this department, which is of great importance in a highly commercial town like Wellington, and attracts an increasing number of good students, there are classes in English, Arithmetic, and Latin, conducted by Mr. F. Martyn Renner and one assistant; in Book-keeping and Accountancy, conducted by Mr. A. T. Clarke and two assistants; in Typing and Shorthand by Miss Williams and two assistants; in Mathematics by Mr. A. C. Gifford; and in Chemistry by Mr. J. Boyle. Students are prepared for business, for civil service, accountancy, matriculation, and other examinations in these particular subjects, with considerable success.

There are also special classes—for example, Cookery, under Miss Ivey; Dressmaking, under Miss Laurenson: Pattern-cutting for bootmakers, under Mr. Mapplebeck; which are established either to meet a special need, or with a view to developing fresh fields of work for the school.

## General.

In each of the departments described there are day as well as evening classes, the total number of day students being well over 350. Most of these hold junior or senior free places under the Government regulations for manual and technical instruction. A junior free place is won by every student in the primary schools who obtains a certificate of proficiency in the sixth standard. The certificate of proficiency is in fact a graduation certificate, permitting the student to proceed, free of charges for instruction, to either the Technical secondary school or to the ordinary secondary school. The vast majority of children passing out of the primary schools with certificates of proficiency will finally become members of the commercial or industrial world. To them the technical secondary school offers a choice of courses, each bearing directly on the technical side of some trade or industrial profession. It is therefore possible for the boy or girl of fourteen or fifteen to obtain, as free student, two, three, four or five years of preparatory training for his or her own chosen trade or profession. The advantages of this system are very considerable, especially in a young country, where children look to making their own way at an early age, and it is necessary to get the best result possible in the shortest time. Two years at the school is at least equivalent, from the point of view of wage-earning power, to one year's apprenticeship, and is of course very much better from the point of view of thorough scientific training. This two years, also, is the time most often wasted in running errands and doing odd jobs, by the average boy. Yet it is precisely the time during which the boy's powers are developing most rapidly, and need most careful cultivation. It is, again, by far the best time at which to cement his connection with the technical school, at which also to overcome initial difficulties and to clear the ground for the higher training which the student needs to become master of his trade or profession. The general side of education is not however, neglected, for besides the special courses, the study of English, Composition and Literature, of Mathematics, and of Drawing is compulsory for all the free day students, and occupies a large share of their attention.

After two or three years in these all-day classes, the student enters on his apprentice.



THE PLUMBERS' SHOP.

ship, and then attends the evening classes of the school for further instruction of a more directly technical character. It must be admitted, however, that this system, promising as it undoubtedly is, has one very weak point. The day student attends some five or six hours daily before he goes to apprenticeship. Immediately afterwards he is required to work eight hours a day alongside the journeyman and then-while the journeyman is relaxing his weary limbs and brainthe young growing lad is compelled to tauten up his limbs and brains as far as possible in order to follow the teaching he receives. and to understand and solve the problems he meets in the evening school-problems he should meet in the morning when he is fresh and keen. Not infrequently, also, the lad is kept away from his class altogether doing overtime in the shops In these circumstances the student is unduly handicapped. Hence the tendency in all modern systems of technical education is towards all-day training in the school, alternated with all-day training in the shop or office. The realisation of this ideal in some practical form must be the chief aim of the school Glancing at what is being done in Germany, in the United States, in France, in Britain, in Japan, in Canada, in Australia, and in other countries, it is not hard to see what the technical schools of New Zealand-what in particular the Wellington Technical School-must be in a few years' time. To have facilities for technical training up to a certain low standard, that, say, of the City and Guilds of London ordinary examinations of the last few years, is not sufficient. To have facilities for nothing but elementary evening classes—to have no meeting rooms, recreation grounds, gymnasium, etc.. is not sufficient.

The buildings must contain not only good class-rooms, large and well-lighted workshops and drawing-offices, but also laboratories filled with all the necessary apparatus for gaining first-hand knowledge, accurate and scientific, of all matters dealt in. The buildings must stand on a site sufficiently large to allow for future extension, and also for recreation grounds which for day-students at least are indispensable. Considering the progress that has been made in technical education in this country in the last few years, and remembering that the general public is directly and

intimately interested, and that people also realise that in technical training, as in a less degree in other branches of education, the methods used and facilities offered should be gauged to the requirements of some years hence, when our present pupils will have become in their turn pillars of the State, there is little doubt possible that even greater improvements than those of the last few years must shortly take place in the accommodation provided for technical classes. The kind of training which the State has a right to look for and to provide, is that which will be good enough, in quality if not in quantity, for 20 That kind of training is years hence. without proper appliances not obtained and serious study, and while it may be said with considerable truth that the strong staff at present employed in the Wellington Technical School is doing work of distinctly permanent value, still it must be confessed that the staff is very greatly hampered by lack of space and apparatus that would be provided in most other countries in the ordinary course as an indispensable part of the educational capital of the institution.

The prospects are, however, considerably better than three or four years ago and there are signs of rapid development in the near future.

A public whose interest is fairly awakened, a body of students who are earnest in endeavouring to better themselves, a staff that works enthusiastically for the good of the institution, and a Board thoroughly in sympathy with what is best in modern educational methods, will undoubtedly soon place the school in a very strong position.

The pipe-line conveying petroleum from Baku to the Black Sea has been completed. It is 550 miles long and is capable of passing 400,000 000 gallons of oil yearly. Another important oil pipe-line has been built for transporting Texas and Californian petroleum across the Isthmus of Panama. It is 8 inches in diameter, and fifty-one miles long

The weather is called calm if the air is not moving at more than three miles an hour; thirty-four miles is a strong breeze, forty a gale, seventy-five a storm, and ninety a hurri-