

abolished for upper classes, except where irregularity would lead to disorganization, as in laboratory courses. Interest in work does not seem to have suffered from this step.

If we except the reconstruction of the Engineering Building following the fire of 1907, there had been no notable building additions in the quarter of a century following 1898. And this was hardly an exception, since although drafting room accommodation was greatly increased, other important facilities were but slightly improved and in some cases curtailed. For example, the hydraulics laboratory was virtually squeezed out of existence, although hydro-electric development is by no means an exotic growth in Canada. The splendid Reuleaux collection of mechanical models was not replaced and, an omission which is now keenly felt, no room was provided for the exhibition of engineering models. The inadequacy of office room may be illustrated by the fact that the writer, then about to assume the direction of the Civil Engineering Department, was assigned by the committee in charge to a small attic room without natural light. An unqualified refusal to accept the assignment secured him a room with a window, or to be exact, since his language was devoid of the circumlocution which it now displays, two windows.

Although the successful financial campaign of 1921 placed from five to six million dollars in the hands of the Governors in the next few years, little money was available for the needs of this Faculty. Nearly all was pre-empted to meet obligations of a more general nature, or else ear-marked for specific purposes in other faculties, by the terms on which a large contribution was made. A few crumbs, however, fell to Applied Science.

With the assistance of the Montreal Light, Heat and Power Consolidated, the Shawinigan Water and Power Company, the Bell Telephone Company of Canada, and the Northern Electric Company, a new wing on the site of the old smithy and foundry provided some 60,000 square feet of space on four floors. The ground floor contains an enlarged high voltage laboratory, and a commodious laboratory for internal combustion engines. This latter has been well equipped with units of moderate size, excellently adapted to their purpose. The first and second floors accommodate the heavier equipment of the Electrical Engineering department with room for expansion. The upper floor contains large laboratories for electrical measurements and electrical communications, as well as the departmental offices and library. The whole wing, while economical in construction, is splendidly lighted and well suited to its purpose. A large amount of new equipment has been installed, some by gift, some by purchase and some by indefinite loan.

For eighteen years the hydraulic equipment had been represented by little more than a few tanks and pipes

fitted up "temporarily" in a corner of the testing laboratory. Space made available by the erection of the new wing, mentioned above, was utilized to fit up an excellent modern hydraulics laboratory splendidly adapted to instruction purposes and, within limits, to research. Apart from space, the principal limiting condition is that the city water supply only is available. The most is made of this supply through re-circulation by means of a powerful pump. Acting upon the suggestions of the professors of hydraulics, the engineers of the Montreal Island Power Co. incorporated features in their plant at the Back River which will greatly facilitate the installation there of a supplementary laboratory with an ample water supply, when opportunity offers. The hydraulics laboratory was designed by members of the staff and constructed under their personal supervision. The fact that although nearly all the work and equipment was of a very special kind it was completed nicely within their estimates, is a tribute to their engineering skill.

The greatly increased importance of Highway Engineering necessitated the construction of a laboratory equipped with all the apparatus required for making the standard chemical and physical tests of road building materials, bituminous and otherwise. Some of the operations being noisy and dusty, the laboratory is appropriately placed in an out of the way basement where it is seldom seen by visitors. This laboratory, too, was completed within the estimates of the professor in charge.

A new high pressure boiler has been installed to supply the steam laboratory which greatly extends the scope of the work which can be carried out.

Space will not permit of dealing with all the re-conditioning and improvement carried out. But while much remains to be done, it is within the mark to say that the recent improvements while involving a comparatively small expenditure, have resulted in a marked strengthening of the teaching work, and constitute by far the most important advance in the material resources of the Faculty in the last thirty years.

At the present time there is every reason to hope that before the year is out work may be started on a new building to house the departments of Mining, Metallurgy and Geology, all of which, and particularly the last named, have been heavily handicapped by insufficient room.

A notable development of the last few years is the rapidly widening field of opportunity for engineering graduates. Probably a minority of those now graduating will follow what used to be understood as professional engineering. On the other hand, most of the leading industries are now seeking to build up their organizations with young men who have had an engineering training. Probably many of the richest prizes as regards