MECHANICAL LABORATORIES VS. WORKSHOPS.

As a pioneer in teaching the Mechanical Arts, and in adding them to its curriculum, the Institute recognized that such training would be a valuable adjunct to technical education, and thereby students would become intellectually stronger and better able to solve the problems of life; and the results must be very gratifying.

To teach the various branches, a department of workshops or shops was established, and the subjects taught were called shopwork.

After a few years it was learned that to teach these arts successfully, the workshop methods had to be abandoned or improved. A system of progressive and rapid instruction had to be devised to meet the high standard of American requirements for such work, since the slow and unsystematic workshop methods of acquiring such knowledge had proved inefficient.

The mission of the workshop or factory, as it is generally understood, is to construct or to manufacture, everything else being subordinated. While the beginner may acquire valuable information by such methods, the process of acquirement is necessarily slow and often discouraging, and it takes a number of years to acquire even elementary knowledge of any one branch of the Mechanical Arts.

The mission of a school is different from that of the workshop: it is instruction, and to that everything else is subordinated. A regular system or plain scheme is well drawn up into a narrow compass, so that each subject may be taught by lecture and demonstration, precisely the same as physics, chemistry, mathematics and literature; the training, discipline and practice that may be acquired is truly wonderful, compared with workshop methods.

Designating this department as workshops, and subdividing it into wood-shop, forge-shop, foundry, file-shop and machine-shop, was misleading and injurious in many ways to the teaching of the mechanical arts, not only at the Institute but all over the country. It led the majority of people to think that the workshop methods were employed, that construction was the aim. The Institute has sent during the past twenty years all over this country, drawings and models of work of each department to use as guides to found similar schools, and, unfortunately, in copying the work, these schools also adopted the name workshops, and have largely employed workshop methods, many of such schools being to-day nothing more than miniature workshops or factories, and are teaching students by the slow, unsystematic method of construction instead of the rapid and systematic laboratory method of instruction.

The Institute receives many students from these work-shop schools whose training is unsatisfactory and often injurious, and who have to take the subjects over again, and in many cases their progress is slower than that of students who are taking the subject for the first time; this is undoubtedly due to the fact that the crude methods acquired have to be unlearned.

As one year succeeded another it slowly became apparent to those deeply interested that the term workshop, as applied to the department, and the term shopwork to the subjects taught, were misnomers, for workshops suggest or imply construction, while the term laboratory implies instruction.

As a help to the work at the Institute, and with the hope that it will prove a help wherever these subjects are taught, it was decided to give the department and work names that would distinguish between instruction and construction, teaching and manufacturing. After careful study, the name of the department has been changed to Mechanical Laboratories, and subdivided into Carpentry...