Now, should not every student, upon leaving the Institute, reasonably expect a full and explicit statement of the quality and amount of work he has done during his course? There is nothing new in this. Until within two or three years it was the custom on the part of the Institute to provide each student with some such certificate of attainment. What were the reasons for the discontinuance of the custom we do not know, but we feel justified in saying that the absence of such a certificate on the part of his instructors is a serious hardship to many a conscientious student.

To be sure no diploma nor certificate makes a student, but it is a tangible evidence to the possessor and his friends that he has fulfilled the conditions it contains,—that he has done so much work,—and as such it is a testimonial which, it seems to us, every student has a right to expect.

May we not, at an early day, hope for better things this regard?

We notice in a late issue of our esteemed contemporary, the Columbia Spectator, under the heading "Correspondence," an article, well written, but, unfortunately for the value of the matter, incorrect in its deductions, because the premises are incorrect, in so far as our institution and methods of work are the subjects of criticism. We desire, if it be possible, to set the matter right. The course in mining engineering here is so framed, that students having laid the necessary groundwork which makes further study satisfactory, may devote their energies chiefly to the particular work which they, as is frequently the case, are sure of entering upon after leaving the school.

It is for this reason that the "Options" are introduced,—not understood as an arrangement for shirking work, as the word is frequently translated, but for the better laying out of future work. Mathematics are, through the first year and first half of the second year, obligatory. Then follow three choices or options, one of which must be taken, or a different combination made if necessary and practicable. In this way it is possible that a man may escape mathematics, if he intends being a geologist or metallurgical chemist. Metallurgy is obligatory, the option being as to how much more time he wishes to spend on the subject in the mining laboratory, or in other ways as provided. As for geology, it is possible that a man could get through without having nominally studied mineralogy and geology, by judiciously piecing together his work. Such is, however, not the practice, as one course of study or research naturally leads to the next step in that particular direction.

As a rule, young men come to this school with a purpose to fit themselves as well as they can for their life work, and they are aided as much as is possible in this attempt. As an example of the choice of studies, the writer, with most of his class, has taken mathematics through the entire four years up to the present term, when they were put aside for more metallurgical thesis work in the laboratory.

The course in mathematics comprised Algebra, Geometry (finished), Trigonometry, Analytic Geometry, the Differential and Integral Calculus, applied mechanics and the strength of materials, including actual tests upon iron, iron and steel wire rope, wooden beams, etc.

The miners have all taken Mineralogy, and Geology in its several branches, with field work and more or less numerous excursions for the greater number, during the last three years of their course.

Without exception they have all had Metallurgy, the options differing only in more time put into Metallurgy, Chemistry, or Geology.

It need only be said in regard to the margin allowed in quantitative chemical analysis, that three tenths of one per cent is the limit, while in many determinations, as in pig irons and steels, a variation of as many hundredths of one per cent would, as every one knows, condemn the analysis. By some error in printing, an editorial in a former number of The Tech gave three per cent as the limit, which was manifestly absurd, and was of course corrected in the following number.