

America, and incorporated in the lectures. In my next and concluding notice I shall touch on the further developments if space permits.<sup>1</sup>

GEORGE FORBES

(To be continued.)

#### CITY AND GUILDS OF LONDON INSTITUTE

THE Fifth Annual Report of the Council of this Institute, which was presented last week to the Governors by the Lord Chancellor, gives evidence of marked progress in all departments of the Institute's operations. During the last five years, the advance made in this country in providing technical schools of various grades has been very great, and brings us educationally within a measurable distance of France and Germany. Much praise is certainly due to the City Companies for the very energetic manner in which they have set about giving effect to the important objects they have undertaken. The Technical College at Finsbury and the Central Institution at South Kensington are important additions to the educational establishments of the metropolis. That the Finsbury College has supplied a great want is shown by the rapid increase in the number of students during the two years since it was opened. The number of evening students might have been expected to be large, because in very few places, if in any, do evening students have the same advantages as at Finsbury of obtaining practical instruction in physics and mechanics. But the great success of the College is shown in the increasing number of its day students. In little more than two years the number has increased from 30 to 148; and nearly all these students are in regular attendance throughout the whole day, and go through the complete course of instruction as laid down for them in the programme. Some changes have taken place in the staff of the College in consequence of the opening of the Central Institution. Mr. Philip Magnus has been relieved of the duties of Principal, which he temporarily undertook in addition to his other duties as organising Director of the Institute, and Profs. Ayrton and Armstrong have resigned the Chairs of Physics and Chemistry for similar positions at the Central Institution. The appointment of Dr. Silvanus Thompson as Principal and Professor of Physics at Finsbury promises well for the future of the College, and the Council have been well advised in this selection. The Professorship of Chemistry is still vacant.

The Central Institution, which is to form a kind of technical university, was formally opened in June last, but, as generally happens, the completion of the fittings has occupied more time than was anticipated, and the Institution is consequently not yet in working order. The Prince of Wales, who has shown great interest in the progress of the Institute, issued an appeal to the Lord Mayor and to the Masters of the several Companies for additional funds to defray the cost of the fittings, which brought in over 17,000*l.* It may be expected, therefore, that this Central College will be very completely furnished with all the necessary appliances and apparatus for scientific and technical instruction.

The Council of the Institute refer with satisfaction to several passages in the Report of the Royal Commissioners on Technical Instruction, showing the great need in this country of improved facilities for higher technical teaching. It is a common error, which the building in South Kensington will help to correct, that technical education has reference to artisans only, and that the improvement of the skill of the working man is the great desideratum in the commercial interests of the country. But this is not so. The difference between foreign countries and our own in the facilities afforded for the

education of artisans is not so marked as in the opportunities for the higher education of masters and managers of works.

But the City Guilds Institute, whilst giving prominence in its scheme to the provision of this higher education at its Central Institution, has done a great work in assisting in the establishment of evening technical schools in all the principal manufacturing centres of the kingdom, by means of its system of technological examinations. The Director's special Report on this part of the Institute's work is full of detailed information as to the increase in the number of candidates and of subjects of examination, and is supplemented by remarks of the examiners on the causes of the failures of the candidates. The percentage of failures is decidedly high; but the Institute very wisely insists upon a high standard of excellence, so that its certificates may be accepted by masters and employers as proof of the efficiency of those who hold them. In many crafts, this would be impossible, if the certificates were awarded on the results of a written examination only; but the practical tests which have this year been added afford a guarantee, which would otherwise be wanting, of the technical skill, as well as of the knowledge of the candidates. In the examination in "weaving," for instance, the candidate is required to design an original pattern, to prepare it for the loom, and to weave it in suitable material, besides answering questions on the analysis of patterns, the structure of the different kinds of looms, &c. In mine surveying, also, a practical examination was last year held at the Pease's West Collieries, in which the candidates were engaged, with the examiner, in surface and underground work during the three days. Whilst the Institute's examinations are thus conducted there can be no doubt of their efficiency, and of their affording a valuable supplement to those of the Science and Art Department. Most of the Institute's examiners complain of the candidates' want of skill in drawing; and it is satisfactory to note that the attention of the Education Department has been called to this general defect in the education given in our primary schools, and that it is likely to be remedied by the provisions for teaching linear drawing throughout the Standards contained in the New Code for 1885.

The Report of the Institute concludes with an appeal for additional funds. If the Council are to develop the work they have begun they require a much larger income than they now dispense. A good beginning has been made, but it is little more than a beginning, in the establishment of technical schools in this country. Leicester, Nottingham, Sheffield, and Manchester have received some assistance from the Institute; but there are many manufacturing towns still requiring help, and the wants of the metropolis are by no means satisfied. It is to be hoped, therefore, that the appeal of the Council, backed by the powerful support of the Lord Chancellor, will meet with a ready and adequate response.

#### THE PEABODY MUSEUM AT NEW HAVEN, U.S.

THE accompanying illustration of this fine museum is reproduced from *Science*. The Peabody Museum, Mr. Ingersoll informs us, stands on the corner of Elm and High Streets, just without the *campus* of Yale College. The building is due to the liberality of George Peabody, who gave a sum of money, in 1866, to erect a house for the collections. Thanks to the financial prosperity of Massachusetts, the bonds for a hundred and fifty thousand dollars had greatly increased, and those set aside for the first wing of the building had become worth a hundred and seventy-five thousand dollars when the trustees began to build. With that sum they have erected one of the finest buildings, for its purpose, in the United States—a lofty and ornamental structure of red brick and cream-coloured stone, whose broad and numerous windows

<sup>1</sup> Corrections to first notice in issue of March 19:—For *asphasia* read *aphasia*. P. 462, line 41 of second column, for *a few seconds*, read *for a few thousandths of a second*. P. 463, line 35 of first column, for *without* read *with*.