

artistic excellence, contributed not a little to the result. The quarter of a century that intervened between the opening of the Crystal Palace in London and the Centennial celebration in the United States was a seed-time of considerable activity. Even before the world's workers gathered at Philadelphia to compare the products of their thought and skill, the first fruits of the harvest had been reaped. In the admirable "Special Report," compiled by Dr. Hodgins, in 1876, for the Ontario Educational Department, there is an interesting chapter devoted to the survey of industrial schools. That survey takes a wide range, for it comprises the farthest east and the farthest west. Building, wood-carving, weaving, lace-making, watch-making, metallurgy, blacksmithing, brass-working, stone-cutting, painting, glass-making, ornamental and model drawing, moulding and other arts and industries had then begun to be taught in the technical schools. Some of these were confined to three or four branches, others were more comprehensive, and others again were confined to systematic instruction in the higher departments of technology. These last were virtually normal schools for the training of foremen and superintendents. In some of the courses, the pupil had to master a wide range of theoretical and practical knowledge. For instance, a pupil must gain acquaintance with 85 different tools in wood-turnery; with 80 tools in model joinery; with 60 in forging, and 130 in metal turnery, and must also learn to repair his own tools. And this is merely preliminary—the first step in a three year's course.

The year 1876 is also a significant date in the history of industrial education in this province. The Council of Arts and Manufactures had, in the previous year, appointed a deputation, composed of the chairman, Mr. A. Lévêque, the Rev. O. Audet, Mr. L. J. Boivin, and the secretary, Mr. S. C. Stevenson, to visit the chief art schools of Boston and New York, and in 1876 their report was published. It was at the same time that the Montreal and other schools, some of the work of which we have the pleasure of reproducing in this number, were founded, with Messrs. Lorenz and Hébert as principal instructors, and Mr. Stevenson as director-in-chief. Not the least important of the results which followed the publication of the report was the introduction into the schools of the Council of the system, therein recommended, that of Prof. Walter Smith. Mr. Smith had his training in England, and was for some years art master at South Kensington, and the State of Massachusetts considered itself fortunate in securing his services as director of art education. His plan of teaching was adopted, not only in Massachusetts, but through the rest of New England, as well as in the Middle, Southern and Western States. In the winter of 1882 he delivered a series of lectures in this city under the auspices of the Council of Arts and Manufactures, and his presence in Canada was taken advantage of for the inauguration of industrial art classes in Ontario and the Maritime Provinces. Subsequently his system obtained a footing in Manitoba and still later in British Columbia.

During the last twelve years the schools under the supervision of the Council have very considerably enlarged their original scope. How fruitful their development has been during the intervening period was made clear to the apprehension of the public in the exhibition of last year to which reference has already been made in our columns.

Those who, like ourselves, availed themselves of the opportunity of examining the work of the pupils in every branch of industrial art must acknowledge that the movement inaugurated by the Council in the fall of 1875 has been in many ways productive of good. We cannot more worthily indicate the character of the results achieved by instruction at these schools than by quoting the language of Mr. S. E. Dawson in his presidential address at the termination of his term of office.

"There is on the table before you," said Mr. Dawson, "a complete statement of all the classes which have been carried on during the past year in the city of Montreal. You will find in it how fully the Montreal committee have carried out the views of the Council upon practical technical training. The resolution passed at our August meeting seems to me to mark a turning point in the history of the Council. In the city of Montreal practical classes had long been carried on, but by that resolution practical technical instruction was made obligatory on all schools receiving aid from the Council, and thus it has been introduced throughout the province.

"You have now on the table before you work in metal, in wood, in plaster, and in other materials, made by pupils of the Council in Huntingdon, in St. Jerome, in Farnham, in Sorel, in Sillery, as well as from Montreal. You have lithographs, wood carving, scagliola work,* plaster casts, models in clay, mural decorative designs in oil colours, plumbing work, machine work in iron, patterns for boot and shoe manufacturers, as well as mechanical, freehand and architectural drawings, all executed by pupils trained in our schools.

"I must confess to a feeling of wonder at the slight notice the work of the Council has received from the press and public of Montreal. Every now and then I see a letter in some daily paper portentously announcing as new discoveries principles upon which this Council has been working for years. I have seen communications supported by editors, otherwise well informed, advocating the introduction of technical training, while for years back these gentlemen might, by turning aside a few blocks from their daily business round, have seen in the Montreal school 570 pupils, working at such practical work as you have before you every week night during the winter. We have had in our schools throughout the province 1,346 pupils during the year just closed. We have schools in Montreal, Quebec, Levis, Sorel, New Liverpool, Huntingdon, Sherbrooke, Farnham, St. Jerome, St. Hyacinthe and Sillery. We have during this last year compelled the introduction of practical work in every one of them and yet, in the face of all this, people will write in the newspapers, and announce the matter of practical training of youth as a new discovery originating in distant lands, which they are desirous of bringing under the notice of the people of this province.

"That the work of this Board has been fruitful of good results is every day evident to those who care to inquire. I lay before you now some letters from working men, testifying to the benefit our teaching has been to them, and from professors in technical schools in England and elsewhere, who

*Scagliola (from *scaglia*, a shell, a scale, a chip of stone or marble) is a composition, in imitation of marble, used for enriching columns or the inner walls of buildings. It is composed of gypsum or sulphate of lime, reduced to a fine powder and waded into a paste. While still soft, this paste is studded with splinters of spar, granite, marble, bits of concrete, coloured gypsum or veins of clay. Ochres, boles, etc., are used to colour the spots and patches. It is smoothed with fine iron and afterwards receives a polish.

have pronounced upon the work, concerning which so little is known in this city. It will take up too much of your time to read them now. I would suggest that they be printed.

"The Council has, as I before remarked, 1,346 pupils in the various schools throughout the province. The practical technical teaching, so long carried on in Montreal, has been this year enforced in every school; but the grant has remained the same as ten years ago, although the cost of practical classes is much greater than that of drawing classes. I think that the claims of technical education should be urged more strongly upon the Government, and that a deputation should wait on the Premier with specimens of the work done, and ask for such an increase in the grant as will enable us to extend the scope of our instruction.

"There are several novel features in our work in Montreal, this year, to which I would specially invite attention. The class for instruction in plumbing is a most important step in advance. This is under the tuition of the Master Plumbers' Association. We have fitted up a complete plumber's shop, and during the winter 32 pupils have been instructed in practical work and in the most approved principles of sanitary science as related to plumbing. There were 78 applications, but we had room for 32 pupils only. As each pupil must have his own bench and tools, it is possible to accommodate only a limited number. Another very important new class is one for teaching pattern making for boots and shoes.

"The magnitude of the boot and shoe industry in Montreal and the large number of operatives caused a great pressure on this class. We could enroll only 35 pupils. There were numbers standing every night seeking for a vacancy."

Our engravings, which confirm and illustrate Mr. Dawson's remarks, are, we believe, as creditable a showing of technical school work as any institution of the kind could be expected to produce. The aim which the Council and the teachers keep in view is that the products of the boys' skill and labour should be at once practical and exemplary. The nature, purpose and peculiarities of each exhibit are described on another page, to which we refer our readers.

In conclusion, we would say that schools of this kind are more than training institutions for artisans. They are, with their models and specimens of what is best in industrial art, both centres of information and courts of appeal on all questions coming within the range of their instruction. The benefit to a community of such a standard of taste in common things—that is, things in which all are interested—cannot easily be over estimated. "Already," says one writer on this theme, "we may observe a great change in public opinion and judgment as to what is really good. We no longer hear approval of the coarse and ugly works of art (so called) which were admired some fifty or sixty years ago." In disseminating the knowledge and taste of this new *renaissance* every pupil of the industrial school is a missionary.

The volumes of transcripts and abstracts in the Public Record Office which have been sent from the Vatican archives and other places in Rome are now more than a hundred in number, and contain about 25,000 items from A.D. 1066 to 1700. Fetter Lane is not inaccessible, and some students of history find their way there, but it is chiefly in France and Germany that documents from the Vatican are being printed.