

matters, and to experimenting, with a view to the discovery of new materials and processes. As illustrating the esteem in which this school is held, the deputation was informed that it is entrusted by the Royal Gobelin factory at Berlin with the dyeing of the yarns used in its special productions, which offer many serious difficulties in obtaining the delicate shades required. The school makes every effort to assist manufacturers by undertaking investigations as to the dyeing and finishing of materials submitted, and the information thus given is often of the utmost value, commercially, to its recipients. In the weaving school, provision is made for the reception of every new loom as soon as it is placed on the market. One beneficial result of this system of training has been experienced in the town of Crefeld itself, which, when the silk trade was depressed, was enabled to maintain its position as a textile centre by the promptness with which its manufacturers were able to turn their attention to other branches of the industry. In the textile school at Aix-la-Chapelle, the system of training adopted is somewhat different. A number of ordinary workmen are employed in the spinning, weaving, and finishing of woolsens and worsteds, and these men instruct and are assisted by, the students of the school. Material is supplied by the manufacturers of the district, and is worked up and charged for at cost prices, the school being responsible for the quality and perfectness of the workmanship. In this manner about 60 pieces are turned out per week. This system, to my thinking, has a good many points to recommend itself.

No textile school in England offers such advantages to any young man desiring to become a manufacturer. He has to pick up his knowledge as best he can, and the important part of blending raw materials is totally overlooked, both at Leeds and Bradford textile schools, while carding and spinning are unknown. But as showing the thoroughness and zeal with which the German government supplies the means of technical training in the various industries, the deputation were told that if a paper dealing with some department or detail of the textile industry is read before any foreign society, and is published, the communication is immediately translated and circulated through the textile schools, lantern slides for illustrative purposes being sent with it. Among other things, the report states that the deputation are convinced that the textile schools of Germany are of singular value in training up a supply of well-instructed men, fully capable of occupying positions as foremen, managers, and manufacturers in their several industries. As illustrating the results of a similar system of technical training in the chemical industries, it is stated that the command of the world's markets in coloring matters and other products of coal-tar, the value of which is estimated at £10,000,000, is in the hands of the Germans, to the extent of three-fourths. Stimulated by this success, the educational and industrial leaders of Germany have instituted similar methods to secure the development of the electrical engineering industry.

Electric laboratories have been erected, and equipped on an imposing scale at Stuttgart, where a new electro-technical school has been added to the Royal Technical

High School. At Darmstadt similar provision is made. It is not only in the domain of science, however, that great progress is being made in Germany and Austria. In almost every town visited, fine industrial art museums were found, arranged with the express purpose of cultivating a knowledge of what has already been accomplished in the production of color, design and workmanship. Every technical school has its museum of objects applicable to its special purposes. Notably was this the case in Berlin, Vienna, Crefeld and Dusseldorf. At Nuremberg there has recently been erected at a cost of £50,000, an industrial and trade museum, known as the Bavarian Museum, possessing an excellent collection of art and technical books, besides which there are regularly filed, and accessible to inquirers, more than 130 journals relating to art and industry, together with trade catalogues, directories and address books of other countries. The officials are ready to give every assistance to designers, merchants, and manufacturers seeking information in any department of industrial art or manufacture. The inspection of the school of art in the same city leads the deputation to remark that throughout Germany the supply of teachers of the highest class is on a scale of liberality of which we, in England, have no idea or example.

The Manchester report, being the product of the close observation of business men, deserves all the attention our countrymen can give it. At the last monthly sitting of the Bradford Chamber of Commerce, commercial education was the principal topic discussed. An important memorial to the Government was adopted on this new subject. This memorial has been prepared by the Bradford Chamber, but really formulated on behalf of the Associated Chambers of Commerce of all England, in accordance with a resolution passed at the annual meeting of the Associated Chambers, held at Middlesbrough, in September last. This memorial was proposed by the Bradford Chamber of Commerce, and seconded by the London Chamber, and just to show how the country is waking up to the importance of technical education and commercial education, the memorial says:

"That, in the opinion of this association, it is desirable that young persons intended for commercial careers should, besides passing through the ordinary curriculum of a secondary school, be specially instructed in subjects appertaining to commerce, and that, in order to encourage the provision of such instruction, and with a view to securing that the facilities for commercial education in the United Kingdom shall not be inferior to those of any continental country, it is urgently necessary that government aid should be extended to the teaching of commercial subjects, as it is now to the teaching of science and art; and that a memorial to this effect be addressed to the Prime Minister, and that copies thereof be submitted to the Chancellor of the Exchequer and the President and Vice-President of the Committee of Council on Education." The memorial goes on to say: "Your memorialists would respectfully submit that the aid hitherto granted by the government through the science and art department reaches only one of the two classes into which the trading community may be divided. These two classes are:—1.