

Metric System in the textile industry is easily learned. I refer you to the following books, which show the chaos of weights and measures in France, Germany, Austria, Italy and Spain; Lamoitier, *Traite de Tissage*; Riera, *Guia Practic pera la Filatura del Coto*; Giudici, *Tessuti di Lana e di Cotone*; Frowein, *Kalkulator fuer Textilbranche*; Oelsner, *Die Deutsche Webschule*; Sameli, *Das Metrische Schnellrechnen in der Textil-Industrie*. The chaos of standards there described beggars description.

The rulers of France, Germany, Austria, Italy and Spain have been able at the point of the bayonet to force the Metric System partially into the stores and market places, but they have been powerless to make the people work by it. The result is that textile manufacturers buy and sell by the Metric System products that are manufactured by the English and old Continental standards. The confusion is illustrated by the following statement of the operations made by a German manufacturer in estimating the cost of a cotton tape:

Frowein, *Kalkulator fuer Textilbranche*: The reed is gauged by the number of dents per French line. The yarn counts in both warp and filling are English, based on the 840-yard standard. The picks of filling are given as so many per French line. The weight of the warp yarn is calculated in metric grams from the English counts, and extended at a price in marks per English pound. The length of the filling yarn is calculated per 100 meters of cloth from the picks per French inch and the width in French lines. The weight of filling in grams is then calculated from the English yarn count and the length in meters. The weight in grams is then extended at a price in marks per English pound.

Let the British Empire and the United States profit by the experience of Continental Europe. As surely as night follows day, chaos will follow the general introduction of the Metric System into either of these, the greatest nations on earth.

The textile industry supplies one of the three primary necessities of man, which are food, clothing, and shelter. If the Metric System cannot be made the world's textile standard, it is certain that it cannot become the world's single standard of weights and measures.

I ask you to weigh carefully the objections to a disturbance of the Anglo-American system of weights and measures, which with a common law and a common language binds the two greatest nations of the earth indissolubly together.

SAMUEL S. DALE.

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TEXTILE SCHOOLS IN GERMANY.

Time was when the German textile schools taught practically every branch of the industry in one department. Spinning, weaving, dyeing, finishing, embroidery, etc., all came in for their share of instruction, probably under one teacher and in one room. Those were the good old days of home-spun clothes, when the science of the making was the science of the home. New conditions call for new methods. The hand loom was replaced by the machine loom. The little dye tubs gave way to palatial structures with immense vats. Especially within the last decades have the rapid advances in the textile industry, the numerous inventions, the new processes of manufacture rapidly crowding upon one another, created such complexity and intricacy in all branches of the

textile industry that no school can hope to successfully teach the textile trade in a few courses. It is necessary to learn one thing, and learn it well. Specialization is the keynote of effort. In harmony with this demand, German textile schools are rapidly specializing their courses and greatly adding to the efficiency of their instruction. Some schools have not completed the change. Others are models of the day. To such a modern institution we shall now turn for a closer look at its detailed curriculum of instruction. We have picked out for this purpose the Higher School for Textile Industry at Aix-la-Chapelle.

HIGHER TEXTILE SCHOOLS OF AIX-LA-CHAPELLE.

The Higher Textile School of Aix-la-Chapelle is divided into four departments—spinning, weaving, dyeing, and finishing, and has three affiliated courses in: Master studies, burling and darning. Each department has its own curriculum and its own methods of study. The courses in spinning, weaving, and finishing can be completed in one half-year; while the course in dyeing occupies a full year. The instructional force consists of ten regular teachers and five masters. The theoretical instruction of the class-room is supplemented by thorough practical work in the large workshops or actual textile factories connected with the institution. A 100-h.p. engine supplies power for the operations of the factory, in which run all machines appropriate to the four branches of the textile industry taught in the school. Here students are at work passing the raw materials through the successive stages of manufacture. The products are placed upon the market. There are generally 40 to 50 hands busy in the workshop. Local manufacturers, as a rule, contract for the output.

ENTRANCE REQUIREMENTS.

For entrance into any of the four departments of the school, proof must be adduced of an education equivalent to that acquired in the common schools. In lack of such proof an examination is necessary in arithmetic and German. Foreigners must show sufficient familiarity with the German language to be able to follow the instruction with understanding. All students must have attained the age of sixteen years. Previous practical employment in a textile factory, which is quite a common requirement in textile schools, is not required for admission into the Aix-la-Chapelle school, though it is strongly recommended. Those who desire such practical experience prior to taking a course are privileged to enter the workshop associated with the institution.

CLASSES OF STUDENTS.

Three classes of students are distinguished: Full scholars (*Vollschueler*), who participate in all lectures, and in all practical exercises of their respective courses; practitioners (*Praktikanten*), who are engaged in practical employment in the workshop only; and "Hospitanten," or visitors, who attend lectures and other exercises by choice.

TIME OF INSTRUCTION.

The courses occupy six months, with the exception of the dyeing course, which, as has already been said, takes one year. The half-yearly courses begin the middle of March and the beginning of October. The yearly course begins in March. Practicians may enter at any time. The curriculums cover twenty-one weeks of forty-four hours each in the half-yearly courses. Daily lectures come between 8 and 12 and 2 and 6 o'clock in the summer course, and between 8, 1—2 and 12, 1—4 and 2 and 6 o'clock in the winter course. Saturday afternoons are free. There are Christmas, spring and fall