WOOLEN SPINNING ROOM.

under the presidency of Mr. A. G. Cumnook, of Lowell, and the capital invested in the mills they represent amounts to about $5,000,000. The advice and experience of these trustees is not only a benefit to the school and its equipment, but it is also advantageous for a young man to be educated under the supervision of men who have it in their power to practically recognize ability and progress in studies. The practical features of the school are carried throughout. Almost all of the members of the teaching staff have been practically engaged in the manufacture of textile fabrics. The dominant director of the school is Mr. Christopher F. Brooks, who has for many years held the position of mill superintendent.

The instruction is divided into several sections: the principal departments are the day classes for regular students and the evening classes for the people employed in the mills. In the day classes, which are held both morning and afternoon, arrangements are made for the training of students in any one of four courses. For the cotton manufacturing course; second, the woollen manufacturing; third, the designing; and, fourth, the dyeing. These courses overlap to a considerable extent, so that a student in any one branch attains sufficient knowledge of other branches so far as they appertain to his own section, but the work is specialized as far as possible, so that at the end of the three years' course in the school, the student will have the knowledge of a practical manufacturer.

In the evening school the work is much more specialized, as the evening students have less time to devote to the work than the day students. The evening students have all the advantages that the day students have in manipulating the machinery and taking in same subjects of study.

The application of art to fabrics is one of the most important subjects that is to be dealt with in a textile school, and in the Lowell school arrangements have been made for the art instruction to form part of the regular course, and ultimately every branch of applied art, which can in any degree be considered applicable to textiles, will be taught there, whether applied to the artistic adornment of the fabric or in any process of printing, etc.

The chemistry and dyeing section of the school is one of the most important. Several thousand dollars have been spent last summer in equipping those with all the apparatus that experienced manufacturers and the board of trustees of the school could consider or that experienced instructors from other institutions found advisable.

There is a bewildering variety of machinery in the school, and our three engravings give an idea of only a few of the rooms. The list of the various pieces of machinery with which the school possesses comprises a part of the excellent catalogue issued by the institution. They include the complete equipment of a cotton mill, a wool mill, and a silk mill, all of the machinery being of the very latest type, and, as already stated, run by steam power.

The collection of power looms includes representative machines from almost all of the American loom makers, and looms capable of weaving all varieties of fabrics. Among others are noticed a group of squads from the Knowles Loom Works, Providence, R. I., and some bachelors carpet looms from the shop of the Crompton Knowles Loom Works, Woonsocket, R. I., with plain looms, dobby looms, leno looms, jacquard looms, and other masterpieces of weaving machinery. In the same room is a collection of mangles showing the various methods of preparing and finishing wares, both for cotton, woolen, worsted, and silk fabrics.

There is between the leading nations of the world a continuous industrial warfare existing. Tariffs and
are of great importance in modifying the con-

ditions under which this war is conducted, but no tariff

measures can make up the highest productions of art or make up for:

the disadvantages that exist in the lack of a

population of artisans thoroughly trained in eye and

hand. There are over $100,000,000 worth of textiles

imported into this country every year, all of which

represent special advantages that are possessed by

other countries, and principally the advantage of

highly trained industrial population. All the leading

European nations are spending fabulous sums in the

establishment of trade schools of all kinds, not neces-

sarily all in textiles, but in every branch of industry

by which the great advantage that nations like Ger-

many have received in the possession of specialized

trade schools in their midst during the last twenty years.