WE learn that the students of the School of Drawing and Painting, at the Art Museum, are about to establish a paper. This school is an institution about which little seems to be known here, though it has been in existence six years and has one hundred and fifteen pupils. The students of our architectural department attend lectures at the Museum, and some classes of the School of Drawing and Painting attend lectures on architecture at the Institute. We shall welcome the new paper as a means of better acquaintance with our neighbor.

THE Sheffield Scientific School has just come into possession of a large bequest from the late Joseph E. Sheffield. It is said that this will insure the future of the Institution and put the school on a comfortable footing. Boston University has recently been similarly blessed, and has been able to establish a large number of scholarships. We congratulate our friends on their good fortune.

WE hope to present in our next issue a portrait of Prof. John D. Runkle, the second president of the Institute.

Contributions.

The Manufacture of Wire.

CONSIDERING the multitude and variety of the uses to which wire is put nowadays, an account of the process of making it, as seen by the mechanicals on their recent vacation visit to the large works of Washburn & Moen, at Worcester, may not be uninteresting. Eighteen hundred hands are employed at the factory visited, and the amount of wire turned out in a day is upwards of a hundred tons.

The first operation in making iron wire is rolling square bar iron into coarse wire. Bars from one to two inches square, and ten to fifteen feet long, are run in at one end of a reverberatory furnace and heated to a welding heat. From the other end of the furnace the bars, one after another, are drawn along through a line of a dozen or more pairs of grooved rollers, placed alternately horizontally and vertically, and kept cool by water. These rolls reduce the bar to a round wire somewhat larger than ordinary telegraph wire, which issues through a horizontal pipe, and shoots across the room in a glowing stream. A boy with a short iron rod skilfully deflects the wire from side to side, so that it lies upon the ground in a sinuous line, looking like a fiery serpent. As soon as part of a length of wire has run through, the end is picked up and attached to a revolving reel, which coils it up while still hot. The capacity of one set of rolls at Washburn & Moen's is about thirty tons of wire per day.

If the wire is to be small enough to require several drawings, it is next annealed. The coils are placed in annealing pots, which are in circular pits in the ground, surrounded by the flame of a furnace. It is heated about eight hours, and allowed to cool slowly during the night. The wire is cleaned by dipping in vats of dilute sulphuric acid, the action of the acid being arrested by dashing a mixture of lime and water over the coils. After drying in a large oven, the wire is ready for the drawing.

This is simply pulling the wire through a smooth, tapering hole in a piece of metal called a draw plate. Small wire has to be drawn a great many times, twenty-four or more drawings being not uncommon. As each successive drawing is through a smaller hole than the preceding, the diameter of the wire is slightly reduced each time, and at the same time the tenacity and elasticity of the metal are increased. The wire has frequently to be annealed between the drawings. The draw plates are about eight inches long and two inches square, and each has several holes through it. The first drawing is through plates of chilled cast iron; but as the wire gets finer, steel is used. One might naturally expect this steel to be tempered very hard: on the contrary, it is annealed; and as the holes tend continually to wear larger, they are reduced from time to time by hammering the plate around their smaller ends, which are