

INDUSTRIAL EDUCATION.

An exhibition was recently held in New York City under the auspices of the Industrial Education Association, which has brought the subject of the manual training of young people more prominently before public attention than any amount of pamphlet literature could possibly have done; for by showing what the children have already accomplished, the possibilities of the future are conclusively demonstrated. The exhibit was made up of individual contributions and of collections sent from the different industrial schools throughout the country. They included every department of labor, drawing, modeling, wood and metal working, repoussé and leather work, printing, embroidery, sewing, and even plain cooking. Competition for the prizes was limited to pupils under fifteen years of age and to those living within twenty miles of New York. Many of the most complete educational exhibits, however, came from cities at some distance, those from the industrial schools of Philadelphia, Chicago, Worcester, St. Louis, New Haven and Cleveland being particularly attractive. They illustrated the different steps in manual education, and showed a thorough systematizing that promises the most gratifying results for the future. The New York public schools were not very well represented, but the exhibits from many of the private institutions were worthy of thoughtful study. This was particularly the case in the display of mechanical and engineering models.

Few men of the present untrained generation could compete with these boys of fifteen years and under, in accuracy and finish of their work. The Gramercy Park Industrial school exhibited a very fine model of a suspension bridge, made from full sized drawings at a scale of one-sixteenth of an inch to the foot. This was the work of seven boys, all under fifteen, and secured the first prize. A very perfect little model of a stone-cutting machine, made by one of the pupils of the Amateur Technical Union, and designed to show the manner of dressing marble, sandstone, and others of the softer building stones, was awarded the second prize in this department. The exhibits of the Hebrew Technical Institute and the Yonkers public schools also contained much that was ingenious in the way of models and mechanical toys. The exhibition was open for a week, and was witnessed by at least seven thousand persons. The bulk of the unsold contributions has been transferred to the training school of the Industrial Association, and will form the nucleus of a permanent exhibition. Arrangements have already been made for similar exhibitions in several neighboring cities.

It is confidently believed that this movement for the manual training of American citizens, which has pushed its way in the face of so much opposition and indifference, is now established on a firm foundation, and by making industrial education a recognized feature in our public school system, will give us a generation of skilled native workmen.

THE GIANT EUCALYPTUS IN FRANCE.

This very interesting tree has been generally introduced into southern France, and into Algeria. Many of the trees are now twenty-five or more years old and have attained a height of seventy-five or one hundred feet or more. The gigantic size of this tree, its remarkably rapid growth, the hardiness and tenacity of its wood, the medical properties of its exterior parts, all combine to make it a plant the usefulness of which can be compared with that of the potato. Indeed M. Charles Joly, whose note on the subject we have before us, suggests that this tree may make inhabitable, by its well known and acknowledged sanitary action, regions which could not be otherwise inhabited by Caucasians.

That the eucalypti have a decided influence on the atmosphere around them is no longer doubted. Their vicinity is relatively free from insects, and they protect from miasma. The former effect is undoubtedly due to their balsamic odors arising from essential oils which are not only produced in abundance in all the green parts of the plants, but are even exuded in many species as a sort of scurf, giving the trees their silvery appearance. Whether their destructive influence on miasma is due to the essential oils or to the rapid growth and vigorous vegetation of the tree is yet an open question. Very likely, both characteristics have their influence.

The extracts from these trees are much employed for diseases of the mucous membranes. The Trappists of the Convent of Trois-fontaines, near Rome, and pharmacists make many forms of preparations from the resins, oils, and even leaves, which are much employed as disinfectants, antiseptics, and febrifuges. The amount of extract from the leaves varies with the species. According to M. Joly, M. Marchais of Antibes has tried a score of species to ascertain the difference in amount of extract. From one hundred kilogrammes of the fresh leaves he obtained only one hundred and twenty-five grammes from the *rostrata*, the *occidentalis*, and the *calophyla*; a greater portion was obtained from the *globulus*, the *siteroxylon*, and the *leucoxylon*, viz., one kilogramme to one kilogramme and one hundred and twenty-five grammes; finally, from the *amygdalina* he got one and five hundred and sixty thousandths kilogrammes.

VENTILATION.—As houses are generally made it is better to draw down the upper sash of a window, for the reason that the warmest air, particularly during the winter, collects near the ceiling and injurious matters are carried up into it from the floor. Drawing down the sash will afford a double means of ventilation—permitting the warm and noxious air at the top to escape and the outer air to enter at the bottom of the sash through the lower one. When the weather is cold it is not necessary that the upper sash be lowered much; an inch or two would be sufficient for a room of the average size; that is, fourteen or fifteen feet square. A room which is used for the general assembling of the family—what is called the living room—should not be less than that in dimension.