

different types of schools come into existence, even in considerable number, throughout the country solution of the problem has just begun.

"For the great mass of those needing industrial education the existing public schools, elementary and secondary, must furnish the facilities. They must recognize that the great majority of their pupils must earn their living by their hands and they must undertake to give definite instruction and training for at least the beginnings of industrial efficiency.

"This broadening of purpose may find its realization through an extension and modification of the manual training work in the public schools. Manual training has been justified because of its value for mental training, for cultural purposes, and it may be fully justified on these grounds, but it may be so modified as to give a very definite and varied line to training absolutely necessary for the individual who would become a skilled workman in the industrial field without in any way lessening its value for cultural purposes. It has been making rapid progress in the public schools in recent years and has approved itself in the public mind. It will occupy a still higher place in the estimation of the public, will be given better financial support and more time in the school program, when its scope is enlarged so that it may directly serve industrial ends.

"Industrial education is important for girls as well as for boys; not only for the girls who are engaged in industrial pursuits outside the home, but for the girls who find their work in the home. The woman is the side partner with the man in the home as a business organization. He furnishes the funds for carrying on that organization, she disburses them and must be trained

for efficiency in their proper use. No development of industrial education will be adequate that does not make as large provisions for special training for girls as it does for boys.

Our educational system is the result of an evolutionary process. The demand for industrial education is a demand for a continuation of the evolutionary process to meet new conditions. This type of education will appeal to hundreds of thousands of youth who now leave school because they do not find in it that which appeals to them, or because its work does not appeal to their parents. It will hold them longer in school and the more of this work existing types of public schools can offer the greater the gain, because side by side with the new type of work the best of the old will be continued."

#### THE COLOR OF FLAMES.

You have often noticed the many tinted bars and bands that rise in the shape of "forked tongues of flames" from wood burning in the grate. It is ten to one, however, that you never have thought to figure on the cause of the variegated hues presented by flames. To bring the matter quickly to the point, we will say that the many colors are the result of combustion among the different elements of the wood. The light blue is from the hydrogen and the white from the carbon; the violet is from the manganese, the red from the magnesia and the yellow from the soda, which are constituent parts of the wood.

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