1885.]

and the would-be-mechanic finds himself at the close of his apprenticeship but poorly prepared for his work. In the city, although the men are better qualified, the difficulties to be contended with are equally great. Here the beginning is so low, the wages so paltry and the chance of rising so uncertain as might well discourage a brave heart. In our opinion, the young men referred to might obtain a part of the necessary training, in shorter time, more thoroughly, and at less cost, in a school established for the purpose. By it not only would the taste and talent of the mechanic be cultured, but he would be in a position to gain a more thorough'knowledge of the properties of the materials with which he has to deal. It was not, however, the followers of the old trades that we had so much in view when attempting to write in their interests. Of late years the inventions and discoveries in science. by which the forces existing in nature have been made subservient to man, have introduced many new trades. The present has been aptly styled by Prof. Woodward the dynamic age. The power of steam has to a large extent supplied the place of muscular effort, the function of the hands being rather to direct than to perform. Steam, electrical and hydraulic machines have lately multiplied enormously and are daily making increasing demands for skilled operators, Is it not a matter of deep regret that these operators should be almost wholly ignorant of the principles on which machines are constructed and of the laws governing the forces that impel them ? We do not sanction the advisability of producing intelligent but useless theorists. If the training is to be partial, one sided, far better to have the practical part, but the best results can only be obtained when both are combined. The Government of this Province has for years recognized the importance of obtaining more skillful farmers by annually granting a considerable sum to support in part several agricultural schools, of which the one at Richmond is fast coming into prominence as an institution well calculated to prepare young men to farm intelligently and successfully. In view, however, of the financial condition of this Province, it would be vain to expect much aid from that source. As far as the metropolis of Canada is concerned, the means for carrying on practical education within its limits must come from its wealthy and liberal citizens. To their liberality is mainly due the success which McGill University has achieved, and, although interested parties, we can truthfully affirm that we know of no place where the training could be so effectively conducted as in a well-equipped department in connection with the Faculty of Applied Science-a faculty that has accomplished wonders in the twelve years of its ex-

istence, when we consider the small amount of means at its disposal. Railroad men, we look to you for assistance. Will you not supply us with a workshop to form the nucleus of the great industrial school which will, in the near future, form an important factor in McGill University ? Part of the money so invested will, in time, come back to you through work better done by the large number of employees, from the civil engineers and master mechanics, whose ability frequently saves large sums of money to the companies employing them, down to the lowest grade of mechanics who are required for the establishment, maintenance. and operation of railways. We earnestly invite you to imitate the example of the wealthy citizens of Melbourne, Australia, who have lately founded a workingman's college, in which free education, suited to the wants of men preparing for or engaged in the mechanic arts, is given to day and evening classes. This is what we need in Montreal, not merely for the benefit of its citizens, but likewise for the sixty or seventy students in training for civil, mining and mechanical engineers in the Science Faculty, the best engineering school in the Dominion. Let not outsiders imagine that the engineering students dislike to labor. With them close application to work, both during their college career and previous, has been the rule, not the exception. Like those of other professions, they aim at reaching the first places, and wish to make everything subordinate to this one definite project. A necessary qualification to them as well as to tradesmen is a knowledge of the nature of the materials used in construction, a knowledge that comes of handling, testing, experimenting upon and constructing, rather than that obtained from lectures or books. At present the Science Faculty is somewhat like what the Medical would be were its undergraduates deprived of the use of the dissecting room or forbidden to witness operations performed in the hospitals. The engineers should not only design machines, wholly or in part, but be provided with workshops where they would have an opportunity of making, as the Cambridge engineering students now do, the machine themselves. Have we no Vanderbilts who will do as much for practical education as Redpath has done for natural science ?

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PERMAPS it is safe to say that one-half of the translations made in the classics are Bohna fide.

PROFESSOR in Astronomy --** What constellation did you study last night ?'' Senior.-- "Virgo."

A young fellow picked up a flower after the ladies had left the room and pathetically remarked : "'Tis the last rose of some her."

PROF. in Moral Philosophy: "Mr. R., what end has a mother in view when she punishes her child?" Mr. R. blushes and sits down.