

# SCIENTIFIC CANADIAN

## MECHANICS' MAGAZINE

### AND PATENT OFFICE RECORD

Vol. 7.

DECEMBER, 1879.

No. 12.

#### TECHNICAL EDUCATION AND APPRENTICE SCHOOLS.



We are glad to find that the Board of Education in the district of Ontario is awakening to the necessity of a change on the subject of education taught in our public schools, and that there is a gleam of hope that technical teaching will, in the future, receive more attention. We have, during the past year, dilated considerably upon this subject, and a few remarks on the same in the concluding number of this year's volume of the *Scientific Canadian* will not be out of place. Hitherto we have spoken of the efforts made by the Guilds of London

to impart technical teaching and practical training in order that English workmen shall not fall back from the high standing which they have hitherto held in art work, machinery and tools, but that they shall have an opportunity always of keeping up with the times and hold their own against all nations.

It would appear from all that has been written on this subject by those well calculated to form a just opinion of the matter that what is particularly wanted is manual dexterity and technical knowledge to enable workmen to earn more wages and to produce better work without being at the mercy of fluctuations in trade—which always is felt most by the unpractical machinist.

A system adopted in this country that would impart real instruction in technical principles would be a great aid to many of our mechanics who serve an apprenticeship. To compete with foreign nations—and the day, we trust, is not far off when we shall be able to do so to a certain extent—it is clear that our manufactures must be better than this, and whether or not our policy is Protection or Free Trade in the future, the technical education of our artisan classes should be a *sine qua non*. What particularly is wanted in this country is that foremen should be specially trained and that there should be more practical training on the part of employees

themselves, many of whom being men of capital, have found the money expecting to find in others the practical knowledge to do the work, which they have not done, and hence the cause of many failures. Nothing is more deplorable than the position of an employer who is ignorant of the practical details of his business, and at the mercy of employees whose workmanship he is unable personally to direct. The polytechnical schools of Germany afford a fair example for us to copy, under certain changes, most suitable to a free people, because in them the general intelligence of pupils is cultivated. To succeed, however, we must commence at the beginning, that is in the class of education imparted in our public schools must be changed even if we do not adopt the practice of Germany which prevents children to go forth to factories at an early age, first on half time, and then technical training would go on simultaneously with the ordinary teaching of the schools. But besides this, the rising generation of workers need more knowledge of science applied to industry, for hitherto too much has been trusted to rule of thumb. We sincerely trust this subject will receive the attention of the government, and if so most assuredly it will bear good fruits for the future.

#### SPECIAL ANNOUNCEMENT.

We have already announced to our patrons in our Prospectus for 1880 the great efforts we are making to render the *Scientific Canadian* particularly useful to every class of our subscribers by the addition of ILLUSTRATED SUPPLEMENT SHEETS OF TECHNICAL INSTRUCTION on nearly all the mechanical trades. We more than doubled our subscriptions last year and brought it up almost equal in ratio to our English reading population, to the circulation of many long established scientific papers.

As we fully intend, during the coming year, to push it to the utmost in every part of the Dominion, we particularly desire to call the attention of MANUFACTURERS of all MACHINERY, TOOLS, AGRICULTURAL IMPLEMENTS, WOOD-WORK, PAINTS, VARNISHES, OILS, &c., to the medium this Magazine offers for advertising, and reaching a class of readers interested in the use of all articles relating to mechanics and manufactures.