

## Correspondence.

## MECHANICS' INSTITUTES IN ONTARIO.

To the Editor of the Scientific Canadian :

DEAR SIR.—As the heading for the leading article in the June number of your journal, you ask the question—"Are Mechanics' Institutes in Ontario a Failure?" and then proceed to show that they are. I had carefully read your articles in the February and March Numbers, and while differing with you as to some of your statements and conclusions, I approved generally of the drift of your remarks. In the June number as in the previous articles, the date upon which you reach some of your conclusions are not correct. You assume that the Institutes have been incorporated, and that they receive aid from the Legislature, for (see June number of your journal) "the promotion of Technical information to the industrial classes only," while the Statute under which the Institutes incorporate (Chap. 72 C. S. C.) says for "Library Associations and Mechanics' Institutes;" and the Ontario Statute under which the grants are paid, provides that for every dollar subscribed or appropriated by an Institute, for certain specified purposes, such Institute shall be entitled to receive two dollars up to a maximum of \$400, and that the whole \$600 (or whatever the aggregate of subscription and grant may be,) shall be shown in their next annual reports to have been expended for one or more or all of the following named objects :  
 1st. Books of all kinds except fiction,\* poetry and the drama.  
 2nd. For evening class instruction of their members. 3rd. For a reading-room, the expenditure for which shall not exceed one-fourth of the whole grant. 4th, Payment of the Statutory fee of 5 per cent. to this Association, in the amount received from the Legislature. To ensure the expenditure of these moneys according to law, the Statute constitutes the County High School Inspectors the Auditors and Inspectors of all Institutes in their respective counties ; and, as schedules furnished by the Government, the different classes of receipts and expenditures are shown in detail and are all certified to by the Government Inspectors before an Institute can receive further aid ; and as a further guarantee, copies of these certified schedules are sent in to the Minister of Education and to our Association ; and if anything in them is not in compliance with the law, the respective Institutes are called upon to have the necessary corrections made before further grants can be paid. The question of basing the grants on the conditions now provided, or to base them in proportion to membership, has repeatedly been discussed at the annual meetings of the association when from thirty to fifty representatives of Institutes have been present ; but no change from the systems now prevailing has been asked for ; it being held that institutes in small towns and rural districts, and with a limited membership, need legislative aid even more than do Institutes in the larger cities and towns. You give as one reason why mechanics do not resort to the Institutes, that "they are not managed by their own class." I don't think that is the reason for their indifference. During the 32 Consecutive years I was in the Board of Management of the Toronto Mechanics' Institute, (10 years of which as a journeyman mechanic, and nearly nine years as its Secretary), the constitution provided that a majority of the Directors must be working mechanics and manufacturers—and such I believe is the case with nearly all the Institutes ; and although we from time to time established classes in chemistry and natural philosophy, in freehand and decoration drawing, and in various other branches useful to the mechanics and each winter, also, for many a year had (free for its members) a course of from 12 to 20 lecturers—a large proportion being on scientific or practical subjects, yet we never could enlist the sympathies or active co-operation of a large number of the mechanics, as members. I am satisfied this was not owing to an aversion shown to them by well-dressed men ; for I have always found that the mechanic who respected himself, was sure to be respected by his fellow-members generally, no matter what their calling or profession might be ; indeed, whenever we have attempted to legislate for mechanics as mechanics, we have found that they objected to be so legislated for ; and in respect to the kind of books to be purchased, the Directors have always been more ready to purchase works of a scientific or practical character, than the mechanic members have been to read them. It will not do to say that the technical books purchased were not of the right kind, for through our Association, and otherwise, many of them have been supplied

with books from H. C. Baird's and similar catalogues, English and American of the newest and best technical works, and at prices 33 per cent. cut off the regular rates. I know the complaint *has been* and often *is* made that but a very small proportion of the members of our Institutes are working mechanics, and I have myself often urged this objection, but, after all, is it not true that the proportion of mechanic to non-mechanics members is fully as great as the proportion of mechanic to the non-mechanic members of the whole community ? I think it is, and if we turn our attention to Institutes in the mother country, I believe it will be found the same ; and also that wherever they have left the management or membership to mechanics alone or principally, such Institutes have soon fallen into financial difficulties and disruption. I admit that the Mechanics' Institutes of this province are none of them what they ought to be, and that many of them, are far from it ; but they are not failures—many of them have an uphill fight for existence. Some of our Institutes, I know, have been the means of keeping hundreds of young mechanics, and others, from loose and dangerous habits of life, and giving them taste for study and desire for improvements ; and I now have in my thoughts some few men of scientific and mechanical note in this Dominion who commenced and pursued their studies in the classes, libraries and lecture-rooms of the Institutes. During the ten years or so of the existence of the old Board of Arts and Manufactures, and the twelve years of its successes, our present association, considerable impetus has been given to evening-class instruction in the Institutes. You will see by the programme and report I send you, that our association gives annually from \$20 to \$40 prizes to any affiliated Institute establishing evening classes and securing a certain average attendance for the study of useful and scientific subjects—only about 12 Institutes annually succeed in securing such an attendance as to entitle them to the prizes ; but other Institutes have small classes which are not reported. The income of this association is in the neighborhood of \$900, and the expenditure about \$250, so that about \$650 per annum is available for distribution to the Institute in books of reference and in evening-class prizes. In the year 1878 we presented to each affiliated Institute a set of the 7th Edition, half bound in morocco, of "Ure's Dictionary of Art, Manufacture, and Mining," in 3 vols ; and in 1879 we gave them the 4th or supplementary volume. We have ordered for the present year's presentation, copies of Messrs. Keith Johnston's Handy Royal Atlas, and will procure the best Dominion Atlas for such as prefer it. By purchasing the Dictionary in sheets, and in getting them bound here ; and in getting them all in such large quantities, we have obtained them at about 50 per cent. less than the individual Institutes could have procured them. For the past 20 years we have had arrangements with the various booksellers to supply books to the Institutes at from 20 to 30 per cent. discount, according to kinds of books. My object in writing to you is, to show that the funds received from the Government are not being to any extent misapplied by the Institutes, but are spent in accordance with the requirements of the Statute, and that much good is being done. I would also mention that by the recent amendments to the Act, it is provided that a sum of money, additional, may be appropriated by the Government to any Institute establishing a class or classes of not less than 15 members in applied Mechanics, Chemistry, Mineralogy, Botany, or any branch of the Natural Sciences. Such classes, it is hoped, will become feeders to the Ontario School of Science recently established by the Legislature.

Sincerely yours,

W. EDWARDS.

A JAPANESE PHOSPHORESCENT PAINT.—The trite aphorism, "There is nothing new under the sun," seems again exemplified by a statement to the effect that the Japanese were practically acquainted with the art of luminous painting nine centuries ago, thus anticipating the inventor of the supposedly new phosphorescent paint. A Japanese cyclopædia cites an account of a wonderful picture of an ox which left the frame to graze during the day and returned at night. This picture came into the possession of an emperor of the Sung dynasty (A. D. 676-699), who sought an explanation which none of his courtiers could give. At length a Buddhist priest showed that a certain nauseous substance obtained from oysters, when ground into color material, rendered the pictures painted with the latter luminous at night and invisible through the day, the superstition arose that the animal had gone out to graze.—*Iron Age.*

\* Under new regulations not over 20 per cent. may be expended for standard works of fiction, from approved lists.