

CANADIAN MANUFACTURER, Messrs. J. Ross Robertson and R. T. Lancefield appeared on behalf of the Copyright Association of Canada, and asked the co-operation of the Manufacturers' Association in their efforts to defeat the proposed Berne Copyright Bill, now pending in the Canadian Parliament, and to secure the passage of a distinctively Canadian Copyright Law by that legislative body. Mr. Robertson stated the matter very clearly to the Committee, Mr. Lancefield making a few explanatory remarks. The matter met with the most favorable attention of the Committee, and resulted in the unanimous adoption of the following resolution :—

*Resolved*, "That this Committee having heard the remarks of Messrs. J. Ross Robertson and R. T. Lancefield, in reference to the question of Copyright, hereby agree to co-operate with the Copyright Association of Canada in their endeavor to secure the passage of a Copyright Act which will secure justice to the various important Canadian industries entering into the manufacture and sale of books in Canada, while securing justice also to the British author."

THE Canada Mutual Fire Underwriters' Association in their convention in Toronto last week, unanimously passed the following resolution :—

"That the Executive Committee procure a conference at an early date with the manufacturers of steam threshers, in the hope of inducing them to adopt the system of running steam threshers with steel cables, instead of belts, as at present, as the work can be done as effectually with the former as with the latter ; and to request them to set the engines at a much greater distance from the buildings than is the custom now, thereby lessening the danger of fire."

It would appear from this that it had been discovered that "belts" as operated on steam threshers are a fruitful source of fire ; that "steel cables" are not of such incendiary character, and that the transmission of power from steam threshing engines can be done as effectually with steel cables as with belts. What the average fire insurance agent don't know about engineering as applied to steam threshing would fill a book. What he thinks he knows and is ready and willing to communicate to the manufacturers of steam threshers would probably fill a large library. If the manufacturers desire accurate information regarding their business, let them apply to the Canada Mutual Fire Underwriters' Association.

THE recent development of processes for lighting by electricity has been phenomenal, and the march is still onward. A few years ago the exhibition of a few arc lights in the streets of the larger cities was considered a luxury to be indulged in only by the rich ; now the processes have been so simplified, and the cost of lighting so materially reduced, that but few towns in the country, and no cities, are without their complete systems of street lighting. So, too, but a few years ago only such places as public halls, theatres, etc., resorted to incandescent lamps for illuminating purposes, while now such system is fast driving out gas, coal oil and similar illuminants in factories, mills, workshops and churches ; and many private residences are now equipped with incandescent chandeliers, groups and single lamps in as great or greater abundance than the fast disappearing gas-burner, and at as low or lower cost. At one time it was considered that some steady and reliable

motive power such as steam or water, was absolutely necessary for driving dynamos ; but inventive genius has developed storage batteries, by which the electricity may be generated at different and odd times, to be used only as required ; and now even windmills, which are to be found on almost all farms, and which can be erected on almost any building, either in city or country, can be utilized for the purpose of charging storage-batteries which will afford the electricity for illuminating city and country residences, and for many domestic mechanical purposes, such as operating churns, sewing machines etc. "Electricity is life."

REGARDING the question of industrial education, speaking of the fact that a deputation from the Dominion Trades and Labor Congress had recently waited upon and informed the Ontario Minister of Education that labor organizations viewed with distrust the introduction of manual training into the public schools, *The Week* says :—

"The workingmen of Canada will make a grievous mistake if they allow themselves to be persuaded to oppose this great educational reform. With just as much reason might clerks, book-keepers, professional men, and, in fact, all whose callings require a certain amount of intellectual training, organize themselves into guilds and protest against the teaching of reading, writing and arithmetic in the schools. They might dwell upon the injustice of being compelled to pay taxes for the purpose of training up boys and young men by the thousand to become their future competitors in the various branches of mental industry. The one argument would be just as good as the other. It must be that the deputation and those whom they represent quite misapprehend the kind and scope of the manual training proposed to be given in the schools. To train a boy's hands and eyes and brains by means of the tools and other appliances of the work-shop and laboratory is no more to teach him a trade than to train certain other faculties of reasoning and reflection and judgment by means of book and pen and pencil is to teach him a profession. The true aim of education is to develop *pari passu* all the faculties of body and mind, that the future man may have full control of all. To this end the cultivation of the hands and the perceptive powers, hitherto so much neglected, is just as essential as the cultivation of what we are accustomed to call the higher faculties. The wonder is that modern intelligence has been so slow to recognize the truth."

#### SCHOOL OF PRACTICAL SCIENCE.

A MEETING was held in the office of the CANADIAN MANUFACTURER, Dec. 13, 1888, consisting of manufacturers and others interested in the advancement of technical education in connection with the School of Practical Science. The meeting was called to order by Mr. S. S. Malcolmson, President of the Marine Engineers' Association of Toronto.

Mr. Wm. Polson was elected chairman, and Mr. Wm. J. Allen secretary.

Those present included Messrs. John Abell, of the John Abell Manufacturing Company ; John Ingalls, of Ingalls & Hunter ; Wm. Polson, of the Polson Iron Works Company ; Wm. J. Allen, Supt. of Toronto Syrup Company ; W. J. Mennielly, steam boat inspector ; J. Galbraith, Professor of Science ; Wm. H. Ellis, Professor of Chemistry ; John Galt, Mechanical Engineer ; A. Wickens, President of the Stationary Engineers' Society, and S. S. Malcolmson, President of the Marine Engineers' Association.

The subject of Mechanical Engineering was thoroughly discussed with the view of placing the matter before the Ontario Minister of Education, relative to establishing a School of Practical Science as applied to industrial pursuits, the primary training in which should begin in the public schools so that those desiring a mechanical course could pursue it without studying unnecessary subjects ; and instead of the dead languages, etc., they might study arithmetic,