

ination by this means. Mr. Emmerson of this city has shown me a lamp in which oil in a vapourized form is burned under an incandescient mantle. This promises a brilliant and cheap light, if mantles less fragile than those now in the market can be secured.

Acetylene also promises good results, when a perfect gas generator shall have been invented. Heretofore so much practical difficulty has arisen in producing pure gas, in producing it economically in the small quantities required in a lighthouse, and in preventing the mechanism from freezing, that acetylene has not yet supplanted oil in any of our lighthouses.

Electric light can only be profitably employed when the supply can be drawn from a commercial source. To instal and run an independent plant at a light station is so expensive, and is accompanied by so many practical difficulties, that even rich lighthouse boards, like those of England and France have extended the installation of electric lighthouses very slowly. In Canada we have a few lighthouses supplied by corporations producing electricity in large quantities. Advantage has been taken of the facility with which the electric current can be turned off and on, to make the light at Port Dalhousie occulting, by a simple clockwork; and to alternately light a lamp and operate a fog trumpet on a beacon in Victoria harbour.

So far as I can ascertain, Canada is the first country that has utilized an alternating current in an occulted light, and Mr. Trudeau of Ottawa is the inventor of the first electric fog alarm.

It has always been a question in my mind whether there was any great advantage in multiplying the initial intensity of light in the way in which the superposed burners and other large lamps do multiply it. In clear weather any ordinary good strong light is visible to the horizon of the lighthouse, and this is especially true of the clear atmosphere of Canada. In thick fog the most powerful light is entirely useless at a