

THE MINERAL PIGMENTS OF CANADA.

This work was commenced about two years ago when experiments were made on such number of ochres, clays and other minerals as were thought might possess sufficient colouring matter. Each substance was reduced to a fine powder and then ground in rectified linseed oil. The paint thus obtained was applied to the surface of academy board and allowed to stand exposed to sunlight and dampness for two years. This year all the preceding substances were again ground in oil, and the fresh paint was compared with those that had been exposed, when it was found some interesting changes had taken place, more particularly with the unburnt ochres. Some of these had changed their tints entirely, others were more or less darkened, while a great number remained permanent. A noticeable feature, however, with nearly all the ochres is their tendency to darken, rather than lighten, after long exposure, which is invariably the case with imported pigments.

That the class of pigments at present in use in the majority of cities of Canada is of very inferior quality no one who knows anything of the pigment trade will seriously deny. Most of the imported paint is adulterated to an almost incredible degree. A sample of Venetian red in this city examined by me did not contain 1 per cent of the sesquioxide of iron. Allowing some 20 per cent for colouring matter, it would then be adulterated to the extent of about 60 per cent. How different is this from the pigments sometimes used by first-class consumers! Take, for instance, the Pennsylvania Railroad Company. Their specifications stipulate for paints that show no adulteration at all. Their freight car colour consists of

Sesquioxide of iron	25	per cent	} by weight.
Inert material	7½	" "	
Carbonate of lime	3½	" "	

Their Tuscan red must contain the greatest possible amount of the sesquioxide, a quantity of carbonate of lime ranging between 3 and 5 per cent, and organic colouring matter not exceeding 15 per cent. For this particular colour they refuse any paint that contains less than 75 per cent of the sesquioxide.