

Frequently this classification is not adhered to, and one simply speaks of limestone as being *high magnesian* or *low magnesian*, including in the former the dolomites.

Lithographic stone is a homogeneous, fine grained, porous limestone. It varies in colour, sometimes being cream, yellow, drab or grey. The lighter colours are preferred, as the lack of contrast between a dark stone and the transfer ink makes the work of the engraver very difficult. Any irregularities in texture, or small seams or flaws, cause trouble in engraving and printing. Lithographic stones which have been produced in Canada are of good quality but of dark colour. At present all lithographic stones are imported.

Besides the compact, hard limestones and crystalline limestones there are two varieties of industrial importance, namely, *chalk* and *calcareous marl*.

Chalk, not found in Canada, is a soft, pulverulent, white variety of limestone. Finely ground chalk, from which the gritty impurities have been removed by washing, is called *mill-ting*, *Paris white*, or *Spanish white*.

Calcareous marl is a soft earthy variety, very often containing much clay intermixed with it, though sometimes consisting of almost pure calcium carbonate.

In general, limestones very often contain impurities in considerable quantities, the principal impurities being iron, alumina, and silica.

Lime.

On heating limestone to a red heat for several hours, it gives off its carbon dioxide (CO_2), leaving calcium oxide (CaO) and such non-volatile impurities as it contained. The term *lime* or *quicklime* is applied to this product of calcination, whether the original material was a true limestone or a dolomite, but if a magnesite be calcined the product is called *magnesia* or *calcined magnesite*.

The National Lime Manufacturers' Association of the United States have adopted the following classification of limes, based on the content of magnesia:¹

¹ Warner and Lazell: Glossary of terms in connection with the Manufacture of Lime. Proceedings of the National Lime Manufacturers' Association, 1910.

See also page 6, Lime: Its Properties and Uses, Circular No. 30, Bureau of Standards, Washington.