

electrical defects; that is, free from electro-conductive inclusions and in perfect sheets.

For commutator insulation, amber mica is best, as it wears, under the action of brushes, at the same rate as the copper which composes the segments of the commutator. It must be free not only from electro-conductive inclusions, but also from quartz and garnet.

For electrical purposes *micanite* is being extensively used. It is made by cementing together very thin, small sheets of mica into large sheets. For this purpose much of the small mica is used, which otherwise would be discarded as useless or else ground to powder.

Mica, on account of its transparency and resistance to the action of heat, is admirably suited to use as glazing for stove doors, furnace peep-holes, and chimneys for lamps, lanterns, and gas burners. Muscovite is generally employed, though phlogopite is frequently used. Transparency and freedom from stain are the prime requisites for these purposes.

Finely ground mica, free from quartz and garnet, is mixed with a heavy grease for lubricating purposes.

In order to produce a scintillating surface on wall paper very finely ground white mica is employed. For this purpose the mica is ground under water. It should be from 100 to 150 mesh and as nearly uniform in size as possible.

Coarsely ground mica is used in the surfacing of certain prepared roofings. Cheapness is the main consideration in selecting this material. Any variety of mica may be used.

In addition to the above uses there are many others of lesser importance.

#### PREPARATION.

For full information regarding the mining and preparation of mica reference should be made to the report on mica by Mr. H. S. deSchmid.<sup>1</sup>

<sup>1</sup> Mica: Its Occurrence, Exploitation, and Uses. Second Edition. Report No. 118. Mines Branch.