APPENDIX.

INGALL

It occurs in irregular individuals, penetrated and Microscopic light-green. surrounded by the alltriomorphic scapolite and plagioclase, and shows of rocks. incipient alteration, chiefly marginal, into a green strongly trichroic hornblende. A deep clove-coloured pleochroic sphene, evidently rich in iror in large irregular fragments, is abundant, as is also apatite in irregular grains and large rounded prismatic forms. A little calcite is also present. Another thin section examined showed the plagioclase entirely converted into scapolite. The hand specimen thus represented might be called a scapolite-gabbro.

Another specimen examined (No. 12) showed in the hand specimen a basic gueissic rock. Some of the bands are of light-grayish colour, with patches and streaks of pale reddish (scapolite) and greenish (hornblende) mineral. Angular fragments, as well as bands of darkgreen amphibolite and diorite occur, while disseminated throughout the whole in grains and patches, is a comparatively large amount of a very pale yellow pyrite.

Under the microscope the lighter portions of the rock are seen to be composed mainly of a basic plagioclase (anorthite ?) which has appar. ently been altered in places into scapolite (wilsonite?). Calcite which may have resul ed from the further alteration of the plagioclase, and a much smalle, proportion of a green hornblende and still smaller quantity of quartz are also present. A few of the unstriated grains may be orthoclasc. The darker or green portions and bands are composed mainly of hornblende together with a much smaller proportion of plagicclase and scapolite.

The scapolite-gabbro above described, may, by an increase in the ferro-magnesian constituent, pass over into a pyroxenite but such a type is unrepresented by any of the hand specimens in the collection examined. One thin section examined, however (No. 11) which might be described as such, had evidently been taken as representative of the ore-body, as is seemed to be composed mainly of magnetite with a very subordinate amount of pyrite. This is surrounded and contains embedded in it the same green pyroxene, already mentioned, undergoing alteration to hornblende and serpentine. Both of these alterations may be seen plainly, in the life. Sometimes the change from pyroxene to serpentine is direct, but at times the hornblende serves as an intermediate stage in the process. Secondary calcite is rather abundant and the belief is entertained that some of it may have been derived from the decomposition of scapolite originally present but the facts presented in this section in support of this view are not incontrovertible. A small amount of dolomite was also noticed.

Examinations