more of the character of a conglomerate. Similar rocks are seen in the Point Keweenaw district.

Porphyritic Conglomerate.--At the south-west corner of Michipicoten Island there is visible a conglomerate bed, the boulders of which consist principally of porphyrite, in which a few minute felspar crystals are discernible. Some of the boulders are granitic, and occasionally pebbles occur consisting of or containing agate. These are enclosed in a matrix consisting of coarse-grained and red-coloured porphyritic or trappean debris. In the upper part of the Mamainse group similar conglomerates are found, but in one instance the matrix seems to consist of the same crystalline material as the boulders and fragments, and is very firmly cemented to these. The most interesting example of this rock is that of the Albany and Boston mine, near Portage Lake. Here the matrix of coarse-grained porphyritic sand is accompanied by calcspar, and in some places fine metallic copper.* Other porphyritic conglomerates occur to the south of Portage Lake, some of the boulders of which consist of quartzose porphyry, and the matrix of some of which contains quartz as well as calcspar.

Felsite-tuff.—Overlying the Albany and Boston conglomerate a bed of so-called 'fluckan' occurs, which is a fine-grained, dark-red shaly rock, in which pieces of a greenish blue colour are sometimes seen. Both substances are fusible before the blow-pipe, and contain occasionally small grains and flakes of copper.

Polygenous Conglomerate.—This name is applied by Naumann and Zirkel to those fragmentary rocks whose boulders consist of two or more different rocks. Conglomerates of this nature are especially frequent among the inferior rocks of the Mamainse group, and among those of Keweenaw Point. The boulders of these Mamainse conglomerates are chiefly of granite, gneiss, quartzite, greenstone, and slate, and some of the newer beds contain boulders of melaphyre and amygdaloid in abundance. The matrix is generally a dark red sandstone.

Sandstone.—Among the melaphyres and conglomerates of Mamainse and Point Keweenaw an occasional stratum of sandstone is found of the same character as that which forms the matrix of the polygenous conglomerates.

The manner in which the rocks above described are associated with each other, is much more regular than the architecture of

* This Journal, Vol. iii., Second Series, p. 9.