commercial value been found. Though some pyrite has been marketed it has all been obtained from mines that were worked primarily for iron ore. The deposits are so unlike that they must be described separately.

The largest known deposit of pyrite in the county is about 2 miles northeast of Emmaus, on the northwest slope of South Mountain. It occurs in the deepest working of one of the numerous limonite mines that form an almost continuous line for about 3 miles along this slope of the mountain. The pyrite has been deposited by replacement of the quartzite, and specimens can be obtained that range from practically pure pyrite through pyritic quartzitic sandstone to quartzite in which no pyrite can be detected. The pyrite is granular, and, as determined by Chance, the grains “are generally small enough to pass through a 20 or 30 mesh screen; a large portion passes through an 80-mesh screen, and a considerable percentage is of still finer texture.” No data are available regarding the exact occurrence of the pyrite ore, but it probably forms layers or lenses of variable thickness interbedded with non-pyritiferous sandstone.

During the First World War extensive core drilling was done in the vicinity of this mine, and some shafts were also sunk. Although detailed reports are not available, it is said that considerable pyrite was found, but the project was abandoned because of the expense of pumping the enormous quantity of water that was encountered and also because of the difficulty of keeping the shaft open on account of the clay and loose rock in the upper part, which tended to move slowly downhill.

The depth at which the deposits of pyrite occur depends almost altogether upon the configuration of the region. Where the water level is high and erosion is relatively rapid much pyrite may be expected at a depth of 100 feet or perhaps less. In most places, however, pyrite in workable quantities would not be reached at less than 150 to 200 feet below the surface.

In regard to the pyrite that underlies the deposits of “mountain” limonite ore the available information seems to indicate that the supply is abundant but at present of doubtful value.

In the limestone regions pyrite has been found in large quantities in the Friedensville zinc mines (which see). When the mines were worked the sulphide ores were less favored than the oxidized ores and in some of the mines the sulphides were left. These ores consist mainly of pyrite but contain more or less sphalerite. It seems probable that some of these ores which are too low in zinc to be considered zinc ores may be of value on account of the pyrite.

In the limonite iron mine three-quarters of a mile east of Lanark considerable pyrite was found in the lower levels, and had work continued no doubt much more would have been revealed. The mine was compelled to close when pumping ceased at the zinc mines, as the amount of pumping required for the drainage of the iron mine was too great for successful operation. Next to the Friedensville zinc mines this locality is regarded as the most promising place for pyrite ore in the limestone areas of the county.

Some of the limonite mines contained so much pyrite that at times it was separated from the limonite ore and shipped. In general it was