DISCUSSION

This department has been established by the editors in order to afford to those interested in questions relating to economic geology an opportunity for informal discussion. Contributions are cordially invited either in the form of discussion of more formal papers appearing in earlier numbers or bearing upon matters not previously treated. Letters should be directed to the Editor, South Bethlehem, Penna. The full name of the author should be attached to all communications.

THE OXIDATION OF PYRITE.

Sir:—The account, in your May number, by Mr. A. N. Winchell of the results of his experiments upon the oxidation of pyrite, contains the following statement: "The conditions . . . favored a much more rapid oxidation than would probably occur in nature." This statement is so misleading as to call for comment. In the first place, Mr. Winchell used distilled water for his experiment, although it is generally agreed that it is the presence of small quantities of dissolved salts that gives to the waters of the earth's crust their power to attack the minerals there present. It is not remarkable that distilled water fails to attack pyrite, and it is certainly not true that in this respect that "the conditions favored a more rapid oxidation than would take place in nature." Nor does Mr. Winchell's experiment completely prove that pure water and oxygen alone have little action upon pyrite—for, by placing the pyrite upon the aluminium gauze, he, in all probability, practically constructed a galvanic couple, thereby concentrating all the solvent action of the liquid upon the aluminium. Finally, a most important phase of the question Mr. Winchell entirely ignores, namely the physical constitution of the pyrite. It seems quite clear that a porous, non-compact variety should be much more readily oxidized than a compact variety, and the evidence of the ore deposits seems to bear this out.

THOMAS T. READ.

COLORADO SPRINGS, COLO.