$[\alpha],\beta$ is the proposition, "α implies β," expressed in *Principia* as $\alpha x \supset_x \beta x$. It is perhaps worth while to observe that [   ] is a propositional function of two variables, not in the sense of Quine, but in the sense of Schönfinkel, since, if α is a propositional function of one variable, $[\alpha]$ is a propositional function of one variable.

There is no slur on the invaluable pioneer work of Whitehead and Russell when it is said that their system is unsatisfactory from the viewpoints of formal definiteness and of mathematical elegance. The work of Quine is in both respects an important improvement over the system of *Principia*, and, although open to criticism in certain directions, is probably not too highly praised by Whitehead when he calls it, "A landmark in the history of the subject".

<div align="right">ALONZO CHURCH</div>

AMERICAN MATHEMATICS BEFORE 1900

A History of Mathematics in America before 1900. By David Eugene Smith and Jekuthiel Ginsburg. (The Carus Monographs, No. 5.) Mathematical Association of America, 1934. x+209 pp.

The Committee on the Carus Monographs had a happy inspiration when it was led to induce Professor Smith to prepare this history. He was in every way qualified for the task—through his unique knowledge of the subject, through his attractive literary style, and through the excellence of his judgment in dealing with a great mass of material and in presenting its essence in well-balanced and compact form. All of these qualities are very much in evidence in the little volume under review. Only one who has had considerable experience in such matters can truly appreciate the great amount of research which went into the preparation of the manuscript. In this research Professor Smith had the valuable assistance of Professor Ginsburg of Yeshiva College, the editor-in-chief of Scripta Mathematica.

For the purposes of the history "America" was roughly considered as the territory north of the Caribbean Sea and the Rio Grande River. In 1938 fifty years of activity of the American Mathematical Society will be celebrated, and a number of scholars will doubtless cooperate in presenting a historical picture of each of the fields of American mathematics during that period. Such a survey, and the complementary work under review, will thus give an up-to-date panorama of outstanding mathematical activities of the past. The importance of these activities after 1875 for the extraordinary development in the twentieth century will be assessed, and Professor Smith's delineation of milestones of earlier progress will be recalled.

In the sixteenth and seventeenth centuries the mathematical needs of the early American settlers were few, and even at Harvard and William and Mary Colleges, nothing noteworthy was done. Astronomical observations were made to a certain extent, and almanacs prepared; astrologers were by no means unknown. "The century that saw the work of Galileo, Kepler, . . . ,* Napier,

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* The name "Gilbert" occurred here in the original sentence (p. 13). The reviewer is unequal to guessing to whom it was intended to refer.