

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

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FRIDAY, NOVEMBER 15, 1901.

THE GEOLOGY OF ORE DEPOSITS.*

I.

I SHOULD hardly have ventured to talk on the subject of ore deposits to an audience which contains many men much more familiar with mines than I, if I had not approached the subject from a different point of view. The point of view from which the subject of ore deposits has been most frequently considered has been that of a study of ore deposits themselves. A geologist or mining engineer has studied this or that ore deposit, or a number of ore deposits in different districts, and has then generalized concerning the ore deposits of other districts, and perhaps of the world. I also have considered the subject of ore deposits to some extent from that point of view, but if I had done this only, I should not have ventured to give a general address upon the subject.

A number of years ago I began the study of the alterations of all rocks, by all processes and by all agents, in order, if possible, to ascertain how it is that the rocks change from one form to another. That rocks are metamorphosed has been known for many years. It has been realized that one mineral changes into another mineral;

*The Popular Scientific Lecture of the American Association for the Advancement of Science, complimentary to the citizens of Denver, delivered at Denver, Col., in the High School Auditorium, Monday evening, August 26, 1901.

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