

# SCIENCE

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## GEOLOGY'S DEBT TO THE MINERAL INDUSTRY<sup>1</sup>

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OF recent years it has come to be acknowledged more and more that the science of geology has done and is doing much to advance the mineral industry. On the other hand, it may be of interest to consider briefly what bearing the industry has had on the advancement of the science. In what state of development would geology now be were it not for the assistance it has received from the mineral industry?

In the earlier ages of man the chief interest taken in the components of the earth's crust, in most regions, was, doubtless, chiefly what may be called an economic one. Suitable specimens of flint and other rocks were sought for the manufacture of weapons and utensils. The soft oxides of iron and other paint materials would also early attract attention. In volcanic and earthquake regions other interests would be aroused. Gradually a knowledge of the use of metals would be developed and methods of extracting certain of them from the ores would be discovered by accident. In later ages the economic interest became subordinate to the philosophical. For many centuries little progress could be made in a proper knowledge of the earth's crust until restraining prejudices were gradually thrown aside. It was only at the close of the 18th century that the struggling science began to make real progress. Whatever may be thought of the relative merits of the so-called Neptunists and Plutonists of that time, it cannot but be admitted that Werner was largely responsible for creating a keener and more widespread interest in the proper study of the earth's crust than had existed prior to his day. And this interest was aroused chiefly through his showing that a knowledge of the structural relations of rocks could be applied to economic purposes. Thus, in what

<sup>1</sup> Address of the vice-president and chairman of Section E—Geology and Geography, American Association for the Advancement of Science, Boston, December, 1922.

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