

# 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, JANUARY 2, 1903.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE SCIENCE OF ASTRONOMY.\*

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I TAKE for the subject of my address the science of astronomy, and propose to give a brief historical sketch of it, to consider its future development, and to speak of the influence of the sciences on civilization.

The science of astronomy is so closely connected with the affairs of life, and is brought into use so continuously and in such a systematic manner, that most people never think of the long labor that has been necessary to bring this science to its present condition. In the early times it was useful to the legislator and the priest, for keeping records, the times of public ceremonies and of religious festivals. It slowly grew into the form of a science, and became able to make predictions with some certainty. This was many centuries ago. Hipparchus, who lived 150 B.C., knew the periods of the six ancient planets with considerable accuracy. His periods are:

	Period.	Error × 100 Period
Mercury .....	87 <sup>d</sup> .9698	+ 0 <sup>d</sup> .0007
Venus .....	224.7028	+ 0.0009
Earth .....	365.2599	+ 0.0010
Mars .....	686.9785	— 0.0002
Jupiter .....	4332.3192	— 0.0061
Saturn .....	10758.3222	— 0.0083

\* Address of the President of the American Association for the Advancement of Science, Washington meeting, December 29, 1902.

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