

PRACTICAL ASTRONOMY

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Practical astronomy by P. S. Michie & F. S. Harlow

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P. S. MICHIE & F. S. HARLOW

**PRACTICAL
ASTRONOMY**

WORKS OF COL. P. S. MICHIE

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For the Students of the U. S. Military Academy,
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PRACTICAL ASTRONOMY

BY

P. S. MICHIE AND F. S. HARLOW

Late Professor of Philosophy
U. S. M. A.

1st Lieut. 1st Artillery U. S. A.

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PREFACE.

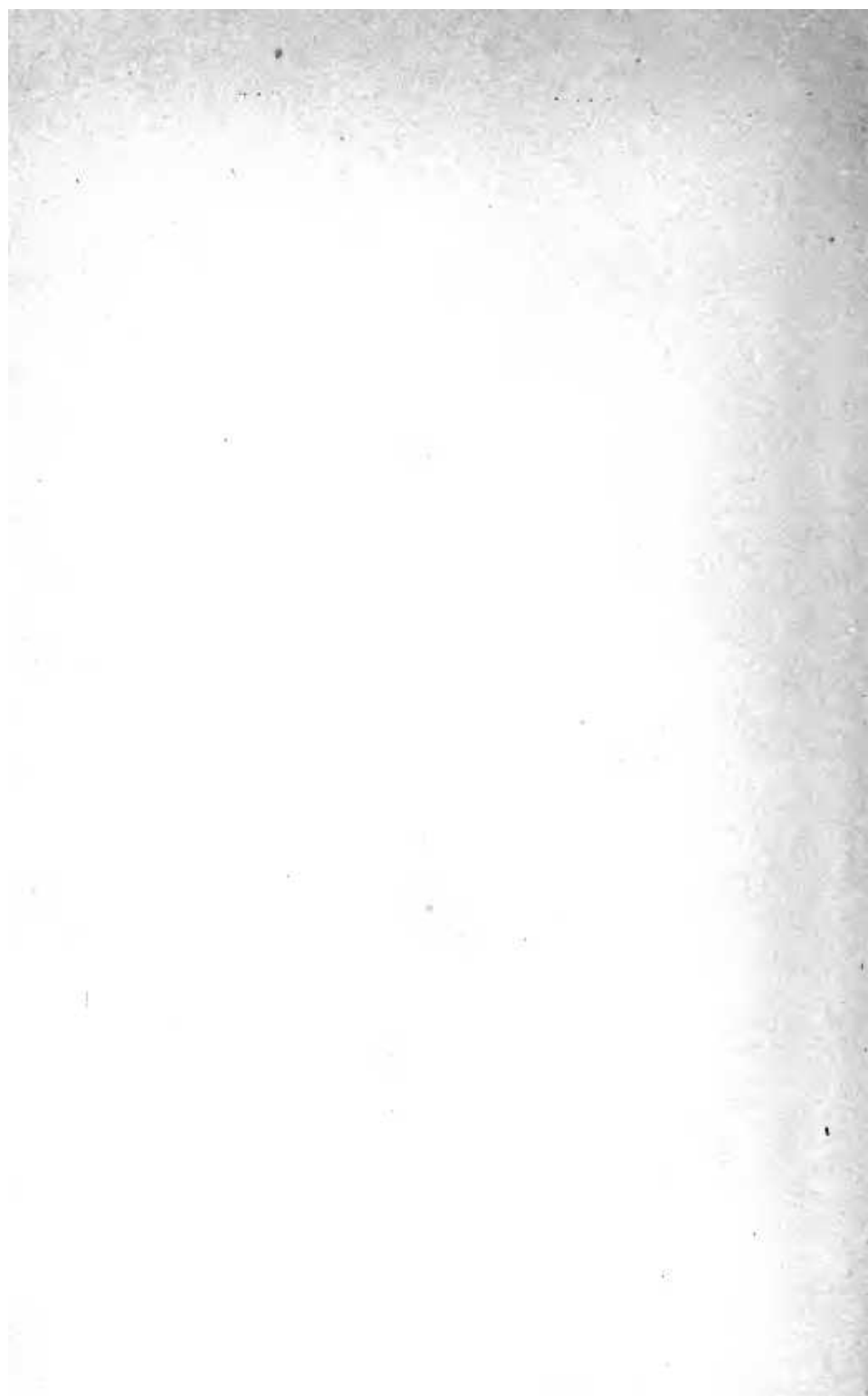
THIS volume, both in respect to matter and arrangement, is designed especially for the use of the cadets of the U. S. Military Academy, as a supplement to the course in General Astronomy at present taught them from the text-book of Professor C. A. Young. It is therefore limited to that branch of Practical Astronomy which relates to Field Work, and more particularly to those subjects which are not discussed at sufficient length for practical work in Professor Young's volume. It is believed, however, that it will find a useful application in the hands of officers of the Army, who may be called upon to conduct such explorations and surveys for military purposes as the War Department may from time to time direct.

The more usual methods of determining Time, Latitude, and Longitude, on Land, are explained, and the requisite reduction formulas are deduced and explained. In addition, there is given a short explanation of the principles relating to the Construction of Ephemerides, to the Figure of the Earth, the determination of Azimuths, and the projection of Solar Eclipses.

The instruments described are those used by the cadets in the Field and Permanent Observatories of the Military Academy during the summer encampment.

The principal sources of information from which the matter in this volume has been derived are the published Reports of the United States Lake, Coast, and Northern Boundary Surveys; the publications of the Hydrographic Office, U. S. Navy, and the works of Brünnow and Chauvenet.

U. S. MILITARY ACADEMY,
WEST POINT, N. Y., October, 1892.



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