

MARS

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Mars by Percival Lawrence Lowell

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PERCIVAL LAWRENCE LOWELL

MARS

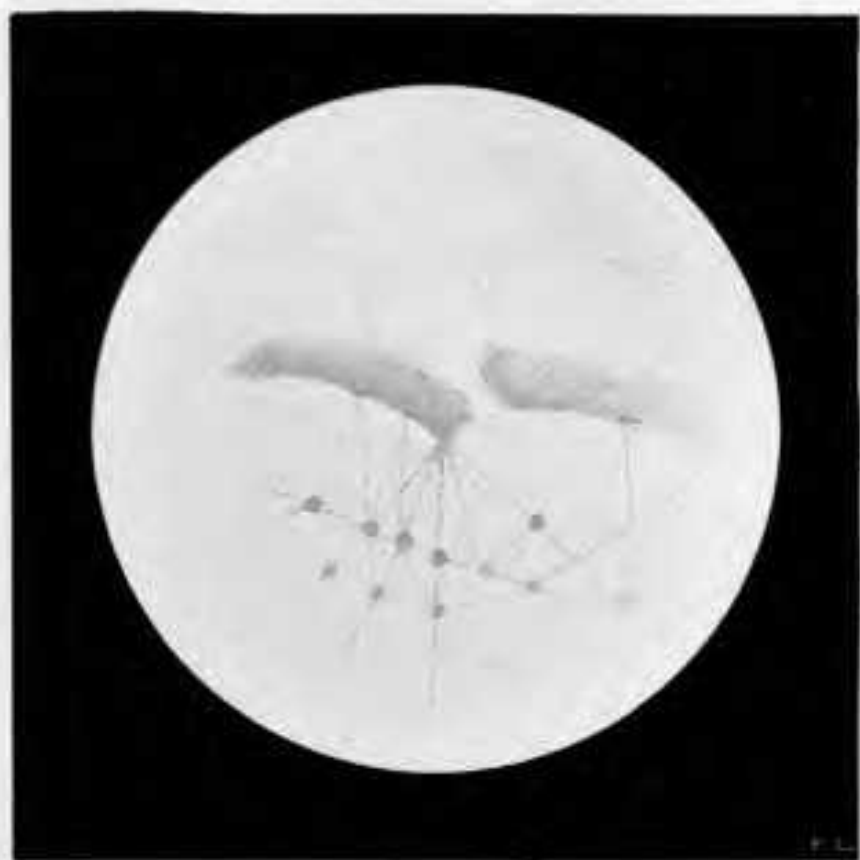


PLATE I

MARS
SINUS TITANUM
NOVEMBER, 1894

TO
PROFESSOR WILLIAM EDWARD STORY
SOMETIME AT FLAGSTAFF HIMSELF
THIS NEWS FROM A NEIGHBOR
IS INSCRIBED

PREFACE

THIS book is the result of a special study of the planet made during the last opposition, at an observatory put up for the purpose of getting as good air as practicable, at Flagstaff, Arizona. A steady atmosphere is essential to the study of planetary detail: size of instrument being a very secondary matter. A large instrument in poor air will not begin to show what a smaller one in good air will. When this is recognized, as it eventually will be, it will become the fashion to put up observatories where they may see rather than be seen.

Next to atmosphere comes systematic study. Of the extent to which this was realized at Flagstaff, I need only say that the planet was observed there from May 24, 1894, to April 3, 1895, during which time, to mention nothing else, 917 drawings and sketches were made of it. Prof. W. H. Pickering and Mr. A. E.

Douglass were associated with me in the observations herein described.

Such as care to see the original data more technically and minutely treated will find them in the first volume of the Annals of this observatory.

LOWELL OBSERVATORY,
November, 1895.

MARS

I

GENERAL CHARACTERISTICS

I. AS A STAR

ONCE in about every fifteen years a startling visitant makes his appearance upon our midnight skies, — a great red star that rises at sunset through the haze about the eastern horizon, and then, mounting higher with the deepening night, blazes forth against the dark background of space with a splendor that outshines Sirius and rivals the giant Jupiter himself. Startling for its size, the stranger looks the more fateful for being a fiery red. Small wonder that by many folk it is taken for a portent. Certainly, no one who had not followed in their courses what the Greeks so picturesquely called "the wanderers" (*οἱ πλανῆται*) would recognize in the apparition an orderly member of our own solar family. Nevertheless, one of the wanderers it is, for that star is the planet Mars, large because for the moment near, having in due course again been overtaken by the Earth, in

her swifter circling about the Sun, at that point in space where his orbit and hers make their closest approach.

Although the apparent new-comer is neither new nor intrinsically great, he possesses for us an interest out of all proportion to his size or his relative importance in the universe; and this for two reasons: first, because he is of our own cosmic kin; and secondly, because no other heavenly body, Venus and the Moon alone excepted, ever approaches us so near. What is more, we see him at such times better than we ever do Venus, for the latter, contrary to what her name might lead one to expect, keeps herself so constantly cloaked in cloud that we are permitted only the most meagre peeps at her actual surface; while Mars, on the other hand, lets us see him as he is, no cloud-veil of his, as a rule, hiding him from view. He thus offers us effective opportunities for study at closer range than does any other body in the universe except the Moon. And the Moon balks inquiry at the outset. For that body, from which we might hope to learn much, appears upon inspection to be, cosmically speaking, dead. Upon her silent surface next to nothing now takes place save for the possible crumbling in of a crater wall. For all practical purposes Mars is our nearest neighbor in space. Of all the orbs about us, therefore, he holds out most