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The Milky Way.

[From The Expanse of Heaven : by Proctor.]

Lo ! these are but a portion of His ways, they utter but a whisper of His glory,—Jon xxvi. 11.

If on a calm, clear night, when there is no moon, we regard the starlit sky, we see spanning the vast concave of the heavens a zone of cloudy light. In our country [England], where the air is seldom free from haze and vapor, even when it appears clearest, this wonderful zone is faint and indistinct. Only in certain portions can we recognize its lustre so distinctly as to feel assured (unless acquainted with its figure and position) that we are not looking at clouds high up in the air. But in southern latitudes the Milky Way is aglow with light. There it is seen as a brilliant band athwart the heavens—

A broad and ample road, whose dust is gold,
And pavement stars, as stars to us appear.

We can not wonder that ancient astronomers should have looked with wonder on this amazing phenomenon. Steadfast as the stars amidst which its course is laid, the galaxy shone night after night before their eyes, and offered a noble problem for their thoughts. Nor did they fail to perceive the meaning of that steadfastness which, to the unthinking, would have had no significance. They saw that the wondrous cloud must

lie at an enormous distance ; and that in all probability its light must be produced by the combined luster of countless stars, removed to so great a distance as to be separately indistinguishable.

Manilius, their astronomical poet, put forward this stupendous conception, and we find Ovid describing the Milky Way in terms not unlike (setting aside their paganism) those in which one acquainted with modern astronomical results might poetically present them :—

A way there is in heaven's extended plain,
Which when the skies are clear is seen below,
And mortals by the name of Milky know ;
The groundwork is of stars, through which the road
Lies open to the Thunderer's abode.

But it is when the Milky Way is studied with the telescope that the true glories of this wonderful zone are seen. A large instrument is not needed. Galileo saw the wonders of the galaxy with his small and imperfect "optic tube"—a telescope which, in our day, though invaluable as a relic of the great astronomer, would be worth but a few shillings, so far as its optical performance is concerned. Wright, of Durham, analyzed the depths of the Milky Way, and formed a sound opinion as to the true nature of the zone, by means of a telescope only ten inches in length. The smallest telescope which the opticians sell for star-gazing, when turned upon certain parts of the galaxy, will reveal a scene of wonder which is calculated to fill the least thoughtful mind with a sense of the infinite power and wisdom of the Almighty. Countless stars pass into view as the telescope is swayed by the earth's rotation athwart the rich regions of the galaxy.

There are stars of all orders of brightness, from those which (seen by the telescope) resemble in luster the leading glories of the firmament, down to tiny points of light only caught by momentary twinklings. Every variety of arrangement is seen. Here the stars are scattered as over the skies at night ; there they cluster in groups, as though drawn together by some irresistible power ; in one region they seem to form sprays of stars like diamonds sprinkled over fern leaves ; elsewhere they lie in streams and rows, in coronets and