

THE EARTH AND ITS LIFE

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The Earth and Its Life by A. Waddingham Seers

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A. WADDINGHAM SEERS

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BY
A. WADDINGHAM SEERS B.A.



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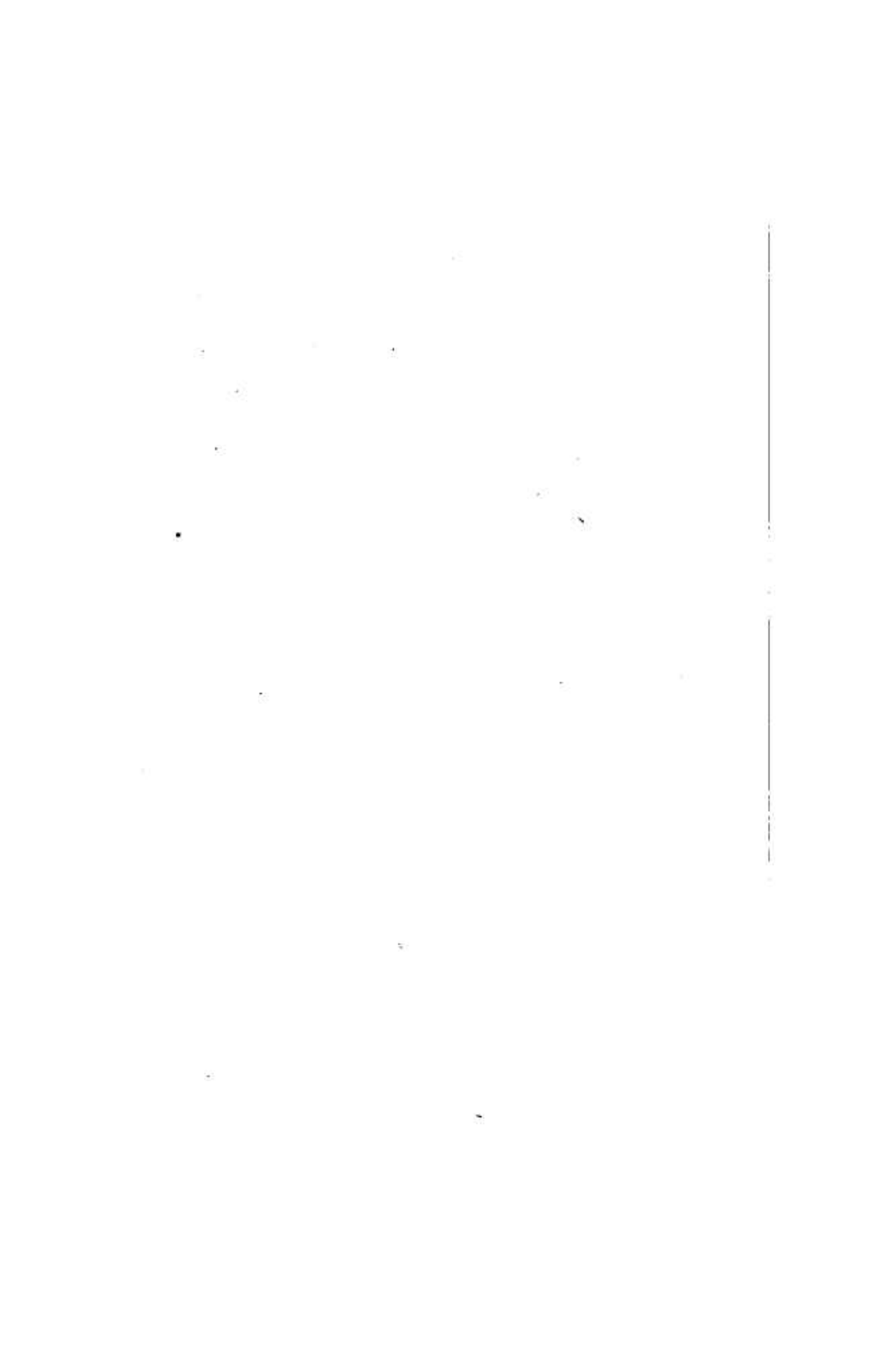
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CHAPTER I

THE EARTH AND THE UNIVERSE

NO single man, if he spent his life in travel, could hope to gain more than an imperfect knowledge of a small portion of the earth's surface. No man, whatever his gifts and industry, could hope to solve a millionth of the problems still unanswered concerning the earth and its life as we know it to-day. No one can say how old it is, yet we know that it is of an age so great that we cannot grasp it. We cannot conceive the slow processes that it passed through before it became a fit abode for life at all, nor the countless succeeding ages during which life was assuming its myriad forms. It took these vast stretches of time and these innumerable stages of development to make the earth and the life on it.

The earth itself is the merest speck in the universe. It belongs to a system of which the star we call the sun is the centre ; it depends upon the sun for its light and heat and life. The earth and other planets revolve round the sun, and the whole system, the solar system, as we call it, moves through space.

The sun is one star. There are countless others. Some of these are centres of light and heat like the sun ; others are travelling about in space, cold and dark.

In relation to the visible universe the solar system is

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small; yet the earth is some 98,000,000 miles distant from the sun, and takes a measurement of time which we have called a year to travel round it, while Neptune, an outer member of the system, takes not one of our



THE GREAT NEBULA IN ORION

From "In Starry Realms," by Sir Robert Ball

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years, but one hundred and sixty-four, to complete its orbit—that is, the path of its revolution.

Distances in the solar system, then, are so great that the mind cannot grasp them. But they are small compared with the distances that usually separate star from star. For the sun to reach the star that is its nearest neighbour it would take, moving at its estimated speed of about ten miles a second, as far as we can reckon, about 70,000 years, and there is no particular reason for believing that, except in star clusters, the stars are usually closer together than this.