

BIRTH OF THE MOON

LUNA WAS FLUNG OUT OF THE EARTH INTO SPACE.

The Once Filled, Perhaps, the Great Basin Now Occupied by the Pacific Ocean—Latest Ideas of Science as to Conditions on Our Satellite.

Millions of years ago the earth was not the land bound, sea swept globe so familiar to us, but a liquid mass on which floated crust some thirty-five miles thick. At that period, says the Strand Magazine, it turned on its axis at a constantly increasing speed that finally shortened the day to three hours. When that terrific velocity was obtained 5,000 cubic million miles of matter were hurled off by the enormous centrifugal force, and our moon was born. The clearing of so large a body must have left some scar on the earth's surface. It has accordingly been suggested that the great basin now occupied by the Pacific ocean was once filled by what is now the moon.

Our moon has the distinction of being the largest of all planetary satellites—so large, indeed, that to the inhabitants of Mars it must appear with the earth as a wonderfully beautiful twin planet.

Because the moon rotates on its axis in exactly the same time that it revolves around the earth we are destined to see little more than one hemisphere. So slow is this rotation that the lunar day is equal to fifteen of our days. For half a month the moon is exposed to the fierce heat of the sun; for half a month it spins through space in the densest gloom.

Smaller in mass than the earth is, the moon's attraction for bodies must be correspondingly less. A good terrestrial athlete could cover about 120 feet on the moon in a running broad jump, and leaping over a barn would be a very commonplace feat. A man in the moon could carry six times as much and run six times as fast as he could on the earth.

Although separated from us by a distance that at times reaches 233,000 miles and is never less than 222,000 miles, we know more of the physical formation of the single pallid face that the moon ever turns toward us than we know of certain parts of Asia and the heart of Africa. Powerful telescopes have brought our satellite within a distance of forty miles of the earth. Physicists have mathematically weighed it and fixed its mass at one-eighth of the earth, or 73,000,000,000,000 tons.

The moon presents aspects without any terrestrial parallel. Rent by fires long since dead, its honeycombed crust seems like a great globe of chilled slag. Craters are not uncommon on the earth, but in number, size and structure they bear for the most part little resemblance to those of the moon.

A lunar crater is not the mouth of a volcano having a diameter of a few hundred feet, but a great circular plain twenty, fifty, even a hundred miles in diameter, surrounded by a precipice rising to a height of 5,000 or 10,000 feet, with a central hill or two about half as high.

Water cannot possibly exist as a liquid, for the temperature of the moon's surface during the long lunar night is probably not far from 400 degrees below the zero mark of a Fahrenheit thermometer, and the atmospheric pressure is so low that a gas under pressure would solidify as it escaped. Ice and snow are the

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forms, then, which lunar water must assume.

Because of the present paucity of water the moon's atmosphere is so exceedingly rare that startling effects are produced. Perhaps the most striking is that of the sunrise. Dawn and the soft golden glow that ushers in terrestrial day there cannot be. The sun leaps from the horizon a flaming sickle, and the loftier peaks immediately flash into light.

There is no azure sky to relieve the monotonous effects of inky black shadows and dazzling white expanses. The sun gleams in fierce splendor, with no clouds to diffuse its blinding light. All day long it is accompanied by the weird zodiacal light that we behold at rare intervals.

Even in midday the heavens are pitch black, so that, despite the sunlight, the stars and planets gleam with a brightness that they never exhibit to us even on the clearest of moonless nights at sea. They shine steadily, too, for it is the earth's atmosphere that causes them to twinkle to our eyes.

In the line of sight it is impossible to estimate distances, for there is no such phenomenon as aerial perspective. Objects are seen only when the rays of the sun strike them.

At times there may be observed spots which darken after sunrise and gradually disappear toward sunset.

They cannot be caused by shadows, for shadows would be least visible when the sun is directly overhead.

They appear most quickly at the equator and invade the higher altitudes after a lapse of a few days. In the polar regions they have never been seen. What are they? Organic life resembling vegetation, answers Professor Pickering of Harvard university, vegetation that flourishes luxuriantly while the sun shines and withers at night.

A single day, it may be urged, is not sufficiently long for the development and decay of vegetation, but sixteen hours on the moon is little more than half an hour on the earth; a day lasts half a month and may be regarded as a miniature season.

The expressions "Halleluia" and "Amen" are said to have been introduced into Christian worship by St. Jerome about A. D. 390.



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WANTED—YOUNG MAN WANTS work learning the confectionery trade, with room and board. Address "C. K." Astorian office. 8-19-7t.

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LOST—FOUNTAIN PEN; LAUGHLIN make; finder return to Astorian office. 8-11-4t.

FOUND—A LADIES' BLACK JACKET on the trail to Young's River; owner can have same by calling at this office and paying for advertisement. 8-21-tf.

LOST—ON NIGHT OF AUGUST 18TH, on the "Republic," 6 papers of 94-inch mesh net; new lines; leads brand; T. P.; finder notify Warren Packing Company and receive reward. 8-22-3t.

FOUND—100 FATHOMS BIG MESH net; owner call at Union Fishermen's. 8-22-3t.

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Rooms 35-36—Phone Main 2951.
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Attorney-at-Law.
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OSTEOPATH
Office Mansel Bld. Phone Black 2666
573 Commercial St., Astoria, Ore.

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DR. T. L. BALL,
DENTIST.
524 Commercial St. Astoria Oregon.

DR. VAUGHAN,
DENTIST
Pythian Building, Astoria, Oregon.

Dr. W. C. LOGAN
DENTIST
78 Commercial St., Shanahan Building

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