

SUN-RISE IN THE MOON.

BY J. MUNRO, AUTHOR OF "THE WIRE AND THE WAVE."



I AM alone and seated upon a rock, but I know not where. It is night, and the sky above me wears a strange aspect. There is no shining moon and lustrous clouds; no familiar planet beams like a golden lamp; no brilliant star flashes a living gem in the blue and limpid depths of ether.

I see only an immense black vault—to all appearance, hard, and fretted with pale blue points of light. It is a dead funereal sky; and to compare small things with great, it re-

minds me of a coal-mine studded with corpse-candles. All about me is buried in darkness that would be absolute, save for the faint glister of the starlight on the white and frozen surface of the ground. Not a living thing is to be seen; an awful stillness reigns; not a breath of air fans my cheek; and the cold is more than Arctic in its rigour.

Suddenly a splendid meteor shoots athwart the sky, its head blazing into green and blue, and its long trail sparkling with fire. It seemed to strike the earth quite near me, for I could hear the shock and the rattle of splintered stones. After a time another followed, and I began to grow alarmed for my safety, when a peculiar light in the distance attracted my attention. It appeared as a bluish-white glow revealing itself in the darkness, like an emanation of some aurora borealis. Dim and vague when first seen, it slowly and surely became brighter, more extensive, and more definite.

At the same time, I was sensible of a growing illumination around me. Spires and pinnacles of hoary granite, tinged with the same blue radiance, stood forth weird and ghostly in the blackness. One might have thought that day was breaking on the mountain tops but for the electrical blueness of the light and the changeless pall of the heavens.

The luminosity in the distance began to assume a crescent shape, but not like that of the moon; for it was horizontal, not vertical. Moreover, I could now see not one, but several, patches and crescents of the bluish lustre which ere long waxed into complete rings, and appeared to float in the darkness, like purple isles and atolls in a shoreless sea of molten pitch.

Shoreless did I say? No: that was only for a space. Beyond the atolls I began to discern a curving band of light, which broadened imperceptibly until it resembled a wall of high cliffs forming the coast-line of a continent, illuminated by the rising sun and trending away into the gloom. In keeping, too,

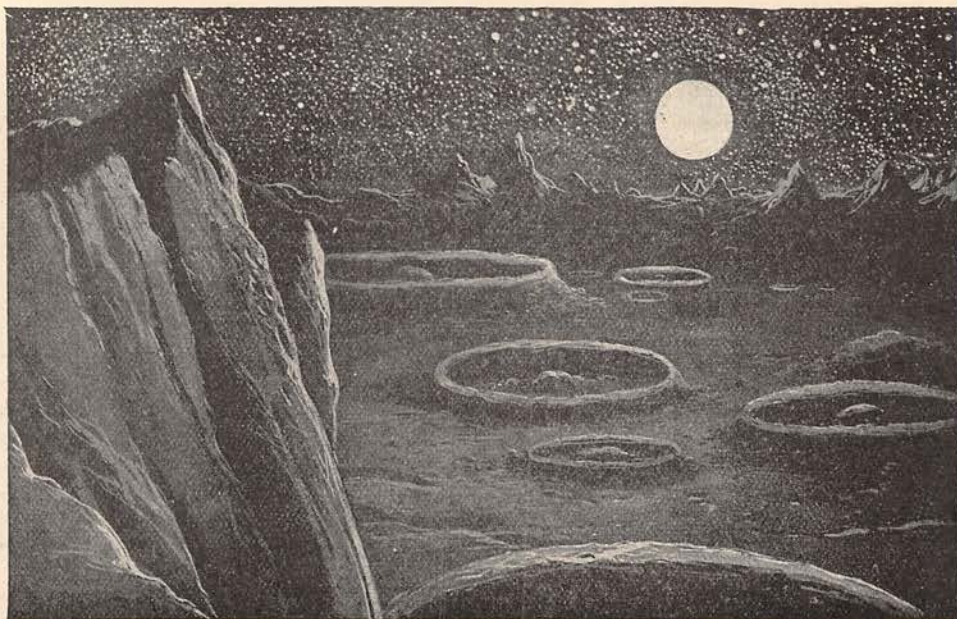
with the effects of sunrise were the long and luminous beams that shot through great gaps and passes in the mountain range on which I now perceived that I was sitting, and fell in purple splashes on the flood of darkness. I knew from the constellations, however, that the light was coming from the west, and, moreover, its colour was neither the amber tinge of sunrise nor of sunset.

How strange and funereal was the spectacle of that black sea, with its purple archipelago enshrined beneath the black sky and the eternal stars! Funereal, yet magnificent beyond all power of language to express. Even the imagination of a Doré could not have conceived the awful sublimity of that Valley of the Shadow of Death. It seemed to me that I was gazing upon the bier of a dead world within the hushed and solemn sepulchre of the universe.

By-and-by a golden light appeared in the east



"IT SEEMED TO STRIKE THE EARTH QUITE NEAR ME."



"IT SEEMED TO SHED NO RADIANCE AROUND IT."

behind the distant line of cliffs, and a vast orb, resembling the moon, but many times, larger, rose with serene majesty into the heavens. Unlike the moon, however, it seemed to shed no radiance around it, for the sky remained as black as ever. The light from its poles was of a dazzling lustre—owing perhaps to the polar ice-fields—but that from the middle zones was dimmer and more shadowy, and varied in tint from a pale green to a ruddy brown and a clouded blue.

The blue patches were probably seas, the brown and green ones continents, with their deserts and vegetation; and I fancied I could trace a configuration like that portion of the earth comprised between America, Africa, and Europe, even to such details as the British Isles.

The light around me had grown so much brighter that I turned to see where it came from, and beheld a still more marvellous sight. Away to the westward rolled a wild chaos of darkness, commingled with bluish light, which I can only compare to the waves of a stormy sea when tipped with lilac phosphorescence; and above the distant horizon in the funereal sky a strange and glorious meteor was blazing like a comet. Its disc was equal in size to that of the sun, and of blinding intensity, but its colour was a kind of lavender blue, inclining to purple; and a silvery white radiance, like that of the Milky Way, extended from it far into the night. What was that brilliant luminary which reminded me so forcibly of an electric arc-lamp when its carbons are burning blue?

I turned once more to the prospect which had first engaged my attention; but I need not linger on the

succeeding phases of the dawn. It is enough to say that as the splendid star mounted up the sky the illuminations became stronger, until a grey-blue daylight showed all the features of the landscape. I then saw that what I have called a sea of darkness was in reality a vast grey plain, and that its purple islands were the peaks and craters of volcanoes. The high cliffs beyond were not the shores of a continent, but part of a stupendous wall of rock, which encircled the plain like a rampart. I discovered that my own station was near the verge of this tremendous precipice; and my brain sickened when I found that its crags dropped sheerly down to the plain, many thousands of feet below.

The summit was jagged with lofty pinnacles of rock, standing as towers along the wall, and enormous gaps like the embrasures of a battlement. It cast a long, sharp, pointed shadow as black as jet athwart the grey plain below, on which the craters of the extinct volcanoes, as yet unpenetrated by the light, resembled wells of ink; but as the meteor ascended higher and higher the shadows by degrees drew back or became lighter. Not a vestige of human occupation, or animal life, or vegetation could be seen anywhere. Apparently, there was not a drop of water, stagnant or running, and the rise of a sort of mist from the ground here and there was the only sign of energy.

Although it was broad daylight, the sky, except in the neighbourhood of the luminary, remained as black as ever: or at least an indigo-blue so deep as to appear black; and the stars had a cold, harsh, bluish aspect.

When I looked in the opposite direction I saw a still more unearthly prospect—a weird and rugged

wilderness of serrated mountain ranges, extinct volcanoes, conical peaks, isolated hills and bosses of rock, walled plains and cindery deserts, traversed by streams of solid lava, or cleft by deep wide cañons, and interspersed with the cones of exhausted geysers, or the basins of dried mud and mineral springs, like the terraces and "paint-pots" of the Yellowstone. The earth and rocks were of all colours, from the white of a deposit like snow, and a species of granite or milky quartz, to the yellow of sulphur, from the red of a vermilion to the green and blues of other natural pigments of volcanic origin; but the prevailing tint was grey, and the light of the sky so chequered the scoriæ and blistered surface with black shadows, that it seemed to be carved out of ivory and ebony.

Here, too, I could see no trace of life, unless some splintered columns on a hill-side were the petrified trunks of an ancient forest; and again the idea came to me that I was looking on the rigid lineaments of a defunct planet.

Dead, perhaps, but not absolutely free of life, for as time went on I began to observe that low forms of vegetation, such as lichen and cacti, were shooting from the arid soil in the growing heat of the luminary, and even imparting a ruddy or green tinge to the grey plains and mountains. Nor was that all: for I was nearly frightened out of my wits on discovering a huge serpent gliding past me as I lay upon the ground. Another and another followed; and not snakes alone, but monstrous toads and flying insects, as gigantic as crocodiles or the winged dragons of past geological eras.

They were of all colours and patterns, to match the earth and rocks, but the majority were black and white. Occasionally a serpent gobbled up a toad, and a toad snapped at a dragon-fly; but still the legion marched on, like a great army. I wanted to run away, but I was rooted to the spot; and—horror of horrors!—an enormous snake glided over my prostrate body. In an agony of fear I struggled to escape from its bloated and slimy folds, but all in vain. I yelled aloud, and—I awoke.

At first I did not know where I was, for the trail of the serpent was still over me; yet I became aware of my identity, and that I was not really where I had thought myself to be. For a moment it flashed upon me that I was crazed, and then I recollected that I was in bed, and that my gruesome experiences were only a dream, evoked, perhaps, by the rays of the dawn falling across my face.

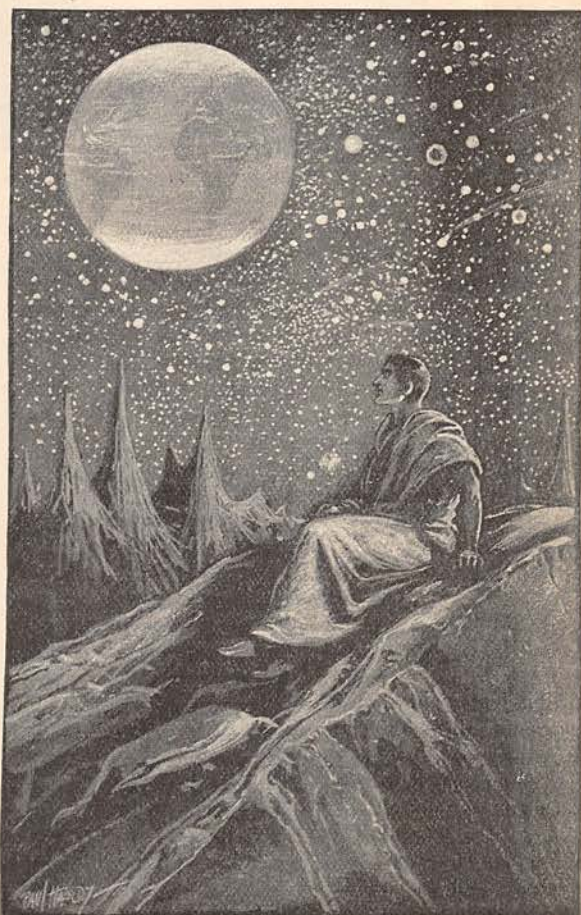
I believe it was a case of what is known as "double consciousness," in which the brain seems to be conscious in two different centres. The Ego had awakened while the rest of the mind was under the influence of sleep. The mystery of my dream became clear to me, for I remembered that before going to bed I had been reading about the moon in the pages of Proctor, Sir Robert Ball, Mr. A. C. Ranyard, and other eminent writers on astronomy. I found, moreover, that there had been a creative method in my dream—that it was, in fact, a vision of sun-rise in the

moon, such as it would appear to an observing eye, placed in the moon itself, and not to an astronomer upon the earth.

My point of view had been on the south-west wall of the great crater, or "walled plain," of Clavius, in the third or south-east quadrant of the moon, and the time was that of sun-rise, when the "terminator" or fringe of daylight was creeping over the surface, and illuminating its salient features.

The azure of our sky on the earth is due to the dispersion of the light in the atmosphere; but if the moon has any atmosphere, it is extremely rare—as rare as that some fifty or sixty miles above the earth. Hence both by night and day the lunar sky appears black. On the summit of Mont Blanc there is a decided darkening of our own blue sky. Again, the golden red light of sun-rise and sun-set on the earth is owing to absorption of the blue rays by our atmosphere, such as may be observed in a gas lamp, which appears redder in a fog.

Seen beyond our atmosphere, the sun would in reality be of a blue colour, like Herschel's lavender, tending to purple, as Professor S. P. Langley has found; and hence, as the moon has little or no absorptive atmosphere,



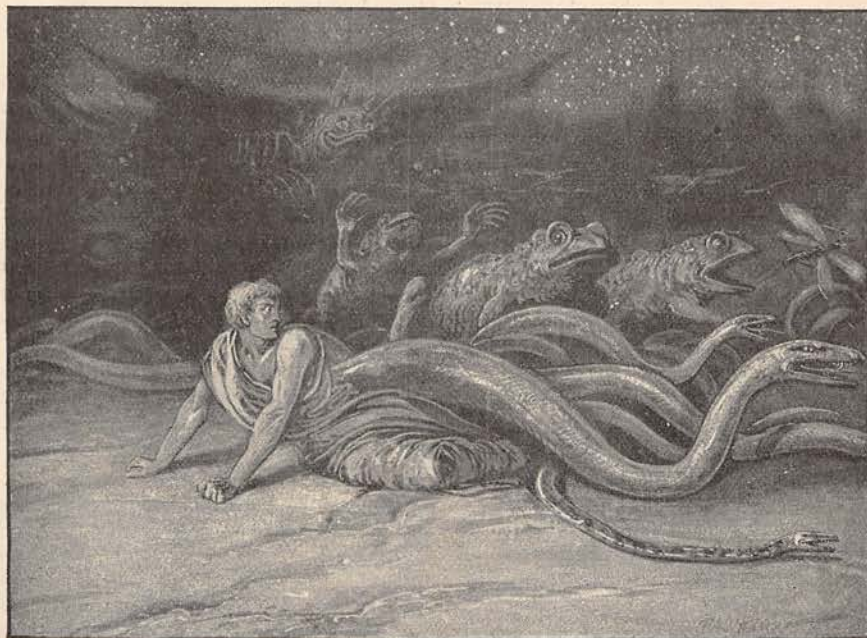
"MY OWN STATION WAS NEAR THE VERGE OF THIS TREMENDOUS PRECIPICE" (p. 804).

the sun-light there will show a purple tinge. The solar disc will also appear to be enveloped by the chromosphere and white corona with its meteoric extensions, including the zodiacal light.

The crater of Clavius is over 142 miles in diameter,

surface of our satellite we see long mountain ranges, but none so high as the Andes or the Himalayas. Those of the moon are evidently the works of Plutonic forces.

The Andes and the Himalayas, on the other hand,



"AN ENORMOUS SNAKE GLIDED OVER MY PROSTRATE BODY" (p. 805).

or twice the area of Wales ; but the absence or purity of the atmosphere favours length of sight. It is surrounded by a bulwark of rocks, in some places attaining a height of more than 17,000 feet above the floor, which comprises about ninety craterlets. Even from the earth a sun-rise on Clavius, when viewed with a good telescope, is a very sublime spectacle. At first the sun lights up the western wall of the crater, which remains in shadow, and appears as a dark bay encroaching on the bright part, or southern horn. As the sun rises higher his rays strike on the craters of the plain, and makes them shine as "golden atolls in a sea of ink."

The eastern wall of the crater catches his fire, and shafts of light dart through the gaps in the western wall into the bottom of the crater : an effect employed by Mr. Rider Haggard in his celebrated romance to enable "She" and her companions to reach the flame of immortality in the caverns of Kôr, which was also a "walled plain," similar to those on the moon. At last the sunlight reaches the plain, the long black shadows are forced to shrink away, and the entire floor is illuminated.

The moon may be regarded as a mummied world which has died young. The earth is much older as a planet, and many traits of its fiery youth have disappeared ; but in the aspect of the moon we are able to read what it has once been like. On the volcanic

are built of rocks which have been deposited under water, and upheaved by the sinking in of the neighbouring areas. In some terrestrial ranges, however, the original core or back-bone is volcanic, and comparable to the ranges of the moon, but it has become overlaid by sedimentary materials : just as a primitive trait of human character is sometimes disguised by later habits or experience.

There are few great craters, rings, or walled plains on the earth, and these are not so large as some on the moon. Probably those of the earth have nearly all been denuded away by wind and water, frost and fire ; but examples can still be seen in Java and elsewhere, and the crater of Kilauea, in the Sandwich Islands, is one still active, where the molten lava is forming a ridgy floor or grey plain, dotted with craterlets which are the last vents of the expiring volcano. The so-called "seas" of the moon, such as the "Sea of Serenity," the "Lake of Corruption," and the "Bay of Rainbows," are apparently dry flats or deserts, like the prairies and the pampas of America, and their greenish-grey or reddish hue probably comes from the earth and ashes, or from vegetation.

The "pits" or cup-like depressions are perhaps old craters which have lost their rings ; the "clefts" are long narrow gorges or cracks remaining open, and the "faults" are doubtless closed cracks, both the result of shrinkage as the moon parted with its internal heat.

The "bright streaks" which radiate from some of the craters across valleys and mountains are perhaps frozen lava streams, and the "long banks" are probably intruded lavas similar to the "trap dykes" of our own planet. The sulphur plains, extinct geysers, and mineral springs which I saw in my dream have not yet been recognised on the moon, because, of course, they would be difficult to discern; but we can hardly doubt that such-like products of volcanic action are present there.

The seeming absence of air and water in the moon has been accounted for in several ways. It is more likely that the particles of air have stolen away into space during the lapse of ages—as Mr. S. T. Preston has supposed—than that it has frozen in the extreme cold or been absorbed by the crust. The water may have been absorbed or frozen out rather than evaporated, but there is a growing tendency amongst astronomers to believe that both an atmosphere and water exist in the moon, though in a diminished quantity. During the long night, lasting two weeks, this water would

undoubtedly be frozen, and the peculiar whiteness of the moon's surface, especially at the poles, may be caused by ordinary snow, as well as by frozen carbonic acid or chemical salts, such as borate of lime. If there be some air and water on the moon—and this is the view which I have taken—the long day of two weeks would, of course, vaporise it; rains would follow, and probably the lower species of plants would flourish. That vegetable and animal life of the higher grades once existed on the moon is questionable. Probably there was never any man in the moon, although the likeness of a very beautiful woman and a very ugly man have been traced by some astronomers.

There is no reason to doubt, however, that many of the lower kinds of animals once haunted the grey plains and wooded slopes of the mountains, and it is even possible that some of these yet linger on in more or less modified types, and migrate with the sunshine, like our swallows, thus elevating my awful nightmare to the rank of a prophetic vision.

THE CLEARING OF THE MIST.

By FRANCES HASWELL.

CHAPTER THE NINTH.

THE PERVERSITY OF THINGS.



SATURDAY came; with it, the hero in person, and two other guests whom Mrs. Ross had invited by way of a little surprise, without saying anything to Emily—namely, Mrs. Holroyd and Violet; Maud had left home on a short visit. They all came by the afternoon train.

It very soon became apparent to Emily that Violet was in one of her naughtiest moods. Within ten minutes of entering the house she rushed into Emily's bedroom to ask "how the courtship was getting on," and for a moment the poor girl felt quite taken aback; she had been so pre-occupied all the week with her own little tragedy that Mr. Somers' supposed admiration for Mabel had almost faded from her memory. She recovered herself, however, shook her head, affected to sigh, and said—

"Ah, Sprite, that was quite a delusion!"

"A delusion!" cried Violet indignantly. "Just when I was looking forward to the most thrilling developments! The instant I caught sight of dear Grenville on the platform, I made joyfully sure your dream was a genuine one, after all. I carried it on—the dream, I mean; I saw her bidding farewell to the Firs—farewell for ever—in a shower of rice: never was rice flung with more hearty goodwill."

"Violet! how can you be so absurd?"

"We arrived. The young couple met on that

beautiful terrace under the window here; I fixed hawk's eyes on them, of course, and it was all I could do to refrain from remarking aloud—'Love among the roses.' And now to have *you* the very next minute—you who discovered, invented, created the whole thing—to have *you* come down upon me all at once, and unblushingly tell me it's nothing—it's a shame, Emily! It's a sell!"

"Don't use such horrid slang!" Emily curtly retorted.

"Very good, madam; I withdraw the word; and I withdraw the thing. It shan't be a sell. The affair shall proceed. I'll light up the dying spark. I'll fan the feeble flame. See if I don't!"

"Violet, how can you go on like this? It's most—I don't know what word to use—most unbecoming and low. What would mother say if she heard you?"

"She would say, 'Oh, Violet!'"

"She'd say something stronger than that. But don't let us be silly. Can't I make you understand? There is no spark; there never were any flames; there never was anything—nothing whatever. It was all pure myth. If I were you, I'd simply forget all about it."

"Forget, indeed? Not I. I won't have you blowing hot and cold like this. Here have I been working myself into a glorious state of sentimental expectation these many weeks, and to have the cup dashed from my lips in this way!"

"Just try to be serious, please, for once in your life. It's time you learned to treat grave matters gravely. Don't you see how you might pain and embarrass people by turning them into vulgar jest?"