

XX.

THE STAR.

It was on the first day of the new year that the announcement was made, almost simultaneously from three observatories, that the motion of the planet Neptune, the outermost of all the planets that wheel about the sun, had become very erratic. Ogilvy had already called attention to a suspected retardation in its velocity in December. Such a piece of news was scarcely calculated to interest a world the greater portion of whose inhabitants were unaware of the existence of the planet Neptune, nor outside the astronomical profession did the subsequent discovery of a faint remote speck of light in the region of the perturbed planet cause any very great excitement. Scientific people, however, found the intelligence remarkable enough, even before it became known that the new body was rapidly growing larger and brighter, that its motion was quite different from the orderly progress of the planets, and that the deflection of Neptune and its satellite was becoming now of an unprecedented kind.

Few people without a training in science can realise the huge isolation of the solar system. The sun with its specks of planets, its dust of planetoids, and its impalpable comets, swims in a vacant immensity that almost defeats the imagination. Beyond the orbit of Neptune there is space, vacant so far as human observation has penetrated, without warmth

or light or sound, blank emptiness, for twenty million times a million miles. That is the smallest estimate of the distance to be traversed before the very nearest of the stars is attained. And, saving a few comets more unsubstantial than the thinnest flame, no matter had ever to human knowledge crossed this gulf of space until early in the twentieth century this strange wanderer appeared. A vast mass of matter it was, bulky, heavy, rushing without warning out of the black mystery of the sky into the radiance of the sun. By the second day it was clearly visible to any decent instrument, as a speck with a barely sensible diameter, in the constellation Leo near Regulus. In a little while an opera glass could attain it.

On the third day of the new year the newspaper readers of two hemispheres were made aware for the first time of the real importance of this unusual apparition in the heavens. "A Planetary Collision," one London paper headed the news, and proclaimed Duchaine's opinion that this strange new planet would probably collide with Neptune. The leader-writers enlarged upon the topic. So that in most of the capitals of the world, on January 3rd, there was an expectation, however vague, of some imminent phenomenon in the sky; and as the night followed the sunset round the globe, thousands of men turned their eyes skyward to see--the old familiar stars just as they had always been.

Until it was dawn in London and Pollux setting and the stars overhead grown pale. The Winter's dawn it was, a sickly filtering accumulation of daylight, and the light of gas and candles shone yellow in the windows to

show where people were astir. But the yawning policeman saw the thing, the busy crowds in the markets stopped agape, workmen going to their work betimes, milkmen, the drivers of news-carts, dissipation going home jaded and pale, homeless wanderers, sentinels on their beats, and, in the country, labourers trudging afield, poachers slinking home, all over the dusky quickening country it could be seen--and out at sea by seamen watching for the day--a great white star, come suddenly into the westward sky!

Brighter it was than any star in our skies; brighter than the evening star at its brightest. It still glowed out white and large, no mere twinkling spot of light, but a small, round, clear shining disc, an hour after the day had come. And where science has not reached, men stared and feared, telling one another of the wars and pestilences that are foreshadowed by these fiery signs in the Heavens. Sturdy Boers, dusky Hottentots, Gold Coast negroes, Frenchmen, Spaniards, Portuguese, stood in the warmth of the sunrise watching the setting of this strange new star.

And in a hundred observatories there had been suppressed excitement, rising almost to shouting pitch, as the two remote bodies had rushed together, and a hurrying to and fro, to gather photographic apparatus and spectroscope, and this appliance and that, to record this novel, astonishing sight, the destruction of a world. For it was a world, a sister planet of our earth, far greater than our earth indeed, that had so suddenly flashed into flaming death. Neptune it was had been struck, fairly and squarely, by the strange planet from outer space, and the heat

of the concussion had incontinently turned two solid globes into one vast mass of incandescence. Round the world that day, two hours before the dawn, went the pallid great white star, fading only as it sank westward and the sun mounted above it. Everywhere men marvelled at it, but of all those who saw it none could have marvelled more than those sailors, habitual watchers of the stars, who far away at sea had heard nothing of its advent and saw it now rise like a pigmy moon and climb zenithward and hang overhead and sink westward with the passing of the night.

And when next it rose over Europe everywhere were crowds of watchers on hilly slopes, on house-roofs, in open spaces, staring eastward for the rising of the great new star. It rose with a white glow in front of it, like the glare of a white fire, and those who had seen it come into existence the night before cried out at the sight of it. "It is larger," they cried. "It is brighter!" And indeed the moon, a quarter full and sinking in the west, was in its apparent size beyond comparison, but scarcely in all its breadth had it as much brightness now as the little circle of the strange new star.

"It is brighter!" cried the people clustering in the streets. But in the dim observatories the watchers held their breath and peered at one another. "It is nearer!" they said. "Nearer!"

And voice after voice repeated, "It is nearer," and the clicking telegraph took that up, and it trembled along telephone wires, and in a thousand cities grimy compositors fingered the type. "It is nearer." Men writing in

offices, struck with a strange realisation, flung down their pens, men talking in a thousand places suddenly came upon a grotesque possibility in those words, "It is nearer." It hurried along awakening streets, it was shouted down the frost-stilled ways of quiet villages, men who had read these things from the throbbing tape stood in yellow-lit doorways shouting the news to the passers-by. "It is nearer," Pretty women, flushed and glittering, heard the news told jestingly between the dances, and feigned an intelligent interest they did not feel. "Nearer! Indeed. How curious! How very, very clever people must be to find out things like that!"

Lonely tramps faring through the wintry night murmured those words to comfort themselves--looking skyward. "It has need to be nearer, for the night's as cold as charity. Don't seem much warmth from it if it is nearer, all the same."

"What is a new star to me?" cried the weeping woman, kneeling beside her dead.

The schoolboy, rising early for his examination work, puzzled it out for himself--with the great white star shining broad and bright through the frost-flowers of his window. "Centrifugal, centripetal," he said, with his chin on his fist. "Stop a planet in its flight, rob it of its centrifugal force, what then? Centripetal has it, and down it falls into the sun! And this--!"

"Do we come in the way? I wonder--"

The light of that day went the way of its brethren, and with the later watches of the frosty darkness rose the strange star again. And it was now so bright that the waxing moon seemed but a pale yellow ghost of itself, hanging huge in the sunset. In a South African city a great man had married, and the streets were alight to welcome his return with his bride. "Even the skies have illuminated," said the flatterer. Under Capricorn, two negro lovers, daring the wild beasts and evil spirits for love of one another, crouched together in a cane brake where the fire-flies hovered. "That is our star," they whispered, and felt strangely comforted by the sweet brilliance of its light.

The master mathematician sat in his private room and pushed the papers from him. His calculations were already finished. In a small white phial there still remained a little of the drug that had kept him awake and active for four long nights. Each day, serene, explicit, patient as ever, he had given his lecture to his students, and then had come back at once to this momentous calculation. His face was grave, a little drawn and hectic from his drugged activity. For some time he seemed lost in thought. Then he went to the window, and the blind went up with a click. Half-way up the sky, over the clustering roofs, chimneys, and steeples of the city, hung the star.

He looked at it as one might look into the eyes of a brave enemy. "You may kill me," he said after a silence. "But I can hold you--and all the universe for that matter--in the grip of this small brain. I would not

change. Even now."

He looked at the little phial. "There will be no need of sleep again," he said. The next day at noon, punctual to the minute, he entered his lecture theatre, put his hat on the end of the table as his habit was, and carefully selected a large piece of chalk. It was a joke among his students that he could not lecture without that piece of chalk to fumble in his fingers, and once he had been stricken to impotence by their hiding his supply. He came and looked under his grey eyebrows at the rising tiers of young fresh faces, and spoke with his accustomed studied commonness of phrasing.

"Circumstances have arisen--circumstances beyond my control," he said, and paused, "which will debar me from completing the course I had designed. It would seem, gentlemen, if I may put the thing clearly and briefly, that--Man has lived in vain."

The students glanced at one another. Had they heard aright? Mad? Raised eyebrows and grinning lips there were, but one or two faces remained intent upon his calm grey-fringed face. "It will be interesting," he was saying, "to devote this morning to an exposition, so far as I can make it clear to you, of the calculations that have led me to this conclusion. Let us assume----"

He turned towards the blackboard, meditating a diagram in the way that was usual to him. "What was that about 'lived in vain'?" whispered one student

to another. "Listen," said the other, nodding towards the lecturer.

And presently they began to understand.

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That night the star rose later, for its proper eastward motion had carried it some way across Leo towards Virgo, and its brightness was so great that the sky became a luminous blue as it rose, and every star was hidden in its turn, save only Jupiter near the zenith, Capella, Aldebaran, Sirius, and the pointers of the Bear. It was very white and beautiful. In many parts of the world that night a pallid halo encircled it about. It was perceptibly larger; in the clear refractive sky of the tropics it seemed as if it were nearly a quarter the size of the moon. The frost was still on the ground in England, but the world was as brightly lit as if it were midsummer moonlight. One could see to read quite ordinary print by that cold, clear light, and in the cities the lamps burnt yellow and wan.

And everywhere the world was awake that night, and throughout Christendom a sombre murmur hung in the keen air over the country-side like the belling of bees in the heather, and this murmurous tumult grew to a clangour in the cities. It was the tolling of the bells in a million belfry towers and steeples, summoning the people to sleep no more, to sin no more, but to gather in their churches and pray. And overhead, growing larger and brighter, as the earth rolled on its way and the night passed, rose the dazzling star.

And the streets and houses were alight in all the cities, the shipyards glared, and whatever roads led to high country were lit and crowded all night long. And in all the seas about the civilized lands, ships with throbbing engines, and ships with bellying sails, crowded with men and living creatures, were standing out to ocean and the north. For already the warning of the master mathematician had been telegraphed all over the world and translated into a hundred tongues. The new planet and Neptune, locked in a fiery embrace, were whirling headlong, ever faster and faster towards the sun. Already every second this blazing mass flew a hundred miles, and every second its terrific velocity increased. As it flew now, indeed, it must pass a hundred million of miles, wide of the earth and scarcely affect it. But near its destined path, as yet only slightly perturbed, spun the mighty planet Jupiter and his moons sweeping splendid round the sun. Every moment now the attraction between the fiery star and the greatest of the planets grew stronger. And the result of that attraction? Inevitably Jupiter would be deflected from its orbit into an elliptical path, and the burning star, swung by his attraction wide of its sunward rush, would "describe a curved path," and perhaps collide with, and certainly pass very close to, our earth. "Earthquakes, volcanic outbreaks, cyclones, sea waves, floods, and a steady rise in temperature to I know not what limit"--so prophesied the master mathematician.

And overhead, to carry out his words, lonely and cold and livid blazed the star of the coming doom.

To many who stared at it that night until their eyes ached it seemed that it was visibly approaching. And that night, too, the weather changed, and the frost that had gripped all Central Europe and France and England softened towards a thaw.

But you must not imagine, because I have spoken of people praying through the night and people going aboard ships and people fleeing towards mountainous country, that the whole world was already in a terror because of the star. As a matter of fact, use and wont still ruled the world, and save for the talk of idle moments and the splendour of the night, nine human beings out of ten were still busy at their common occupations. In all the cities the shops, save one here and there, opened and closed at their proper hours, the doctor and the undertaker plied their trades, the workers gathered in the factories, soldiers drilled, scholars studied, lovers sought one another, thieves lurked and fled, politicians planned their schemes. The presses of the newspapers roared through the nights, and many a priest of this church and that would not open his holy building to further what he considered a foolish panic. The newspapers insisted on the lesson of the year 1000--for then, too, people had anticipated the end. The star was no star--mere gas--a comet; and were it a star it could not possibly strike the earth. There was no precedent for such a thing. Common-sense was sturdy everywhere, scornful, jesting, a little inclined to persecute the obdurate fearful. That night, at seven-fifteen by Greenwich time, the star would be at its nearest to Jupiter. Then the world would see the turn things would take. The master mathematician's grim warnings were treated by many as so much mere elaborate

self-advertisement. Common-sense at last, a little heated by argument, signified its unalterable convictions by going to bed. So, too, barbarism and savagery, already tired of the novelty, went about their nightly business, and, save for a howling dog here and there, the beast world left the star unheeded.

And yet, when at last the watchers in the European States saw the star rise, an hour later, it is true, but no larger than it had been the night before, there were still plenty awake to laugh at the master mathematician--to take the danger as if it had passed.

But hereafter the laughter ceased. The star grew--it grew with a terrible steadiness hour after hour, a little larger each hour, a little nearer the midnight zenith, and brighter and brighter, until it had turned night into a second day. Had it come straight to the earth instead of in a curved path, had it lost no velocity to Jupiter, it must have leapt the intervening gulf in a day; but as it was, it took five days altogether to come by our planet. The next night it had become a third the size of the moon before it set to English eyes, and the thaw was assured. It rose over America near the size of the moon, but blinding white to look at, and hot; and a breath of hot wind blew now with its rising and gathering strength, and in Virginia, and Brazil, and down the St. Lawrence valley, it shone intermittently through a driving reek of thunder-clouds, flickering violet lightning, and hail unprecedented. In Manitoba was a thaw and devastating floods. And upon all the mountains of the earth the snow and ice began to melt that night, and all the rivers coming out of

high country flowed thick and turbid, and soon--in their upper reaches--with swirling trees and the bodies of beasts and men. They rose steadily, steadily in the ghostly brilliance, and came trickling over their banks at last, behind the flying population of their valleys.

And along the coast of Argentina and up the South Atlantic the tides were higher than had ever been in the memory of man, and the storms drove the waters in many cases scores of miles inland, drowning whole cities. And so great grew the heat during the night that the rising of the sun was like the coming of a shadow. The earthquakes began and grew until all down America from the Arctic Circle to Cape Horn, hillsides were sliding, fissures were opening, and houses and walls crumbling to destruction. The whole side of Cotopaxi slipped out in one vast convulsion, and a tumult of lava poured out so high and broad and swift and liquid that in one day it reached the sea.

So the star, with the wan moon in its wake, marched across the Pacific, trailed the thunder-storms like the hem of a robe, and the growing tidal wave that toiled behind it, frothing and eager, poured over island and island and swept them clear of men: until that wave came at last--in a blinding light and with the breath of a furnace, swift and terrible it came--a wall of water, fifty feet high, roaring hungrily, upon the long coasts of Asia, and swept inland across the plains of China. For a space the star, hotter now and larger and brighter than the sun in its strength, showed with pitiless brilliance the wide and populous country; towns and villages with their pagodas and trees, roads, wide cultivated fields,

millions of sleepless people staring in helpless terror at the incandescent sky; and then, low and growing, came the murmur of the flood. And thus it was with millions of men that night--a flight nowhither, with limbs heavy with heat and breath fierce and scant, and the flood like a wall swift and white behind. And then death.

China was lit glowing white, but over Japan and Java and all the islands of Eastern Asia the great star was a ball of dull red fire because of the steam and smoke and ashes the volcanoes were spouting forth to salute its coming. Above was the lava, hot gases and ash, and below the seething floods, and the whole earth swayed and rumbled with the earthquake shocks. Soon the immemorial snows of Thibet and the Himalaya were melting and pouring down by ten million deepening converging channels upon the plains of Burmah and Hindostan. The tangled summits of the Indian jungles were aflame in a thousand places, and below the hurrying waters around the stems were dark objects that still struggled feebly and reflected the blood-red tongues of fire. And in a rudderless confusion a multitude of men and women fled down the broad river-ways to that one last hope of men--the open sea.

Larger grew the star, and larger, hotter, and brighter with a terrible swiftness now. The tropical ocean had lost its phosphorescence, and the whirling steam rose in ghostly wreaths from the black waves that plunged incessantly, speckled with storm-tossed ships.

And then came a wonder. It seemed to those who in Europe watched for the

rising of the star that the world must have ceased its rotation. In a thousand open spaces of down and upland the people who had fled thither from the floods and the falling houses and sliding slopes of hill watched for that rising in vain. Hour followed hour through a terrible suspense, and the star rose not. Once again men set their eyes upon the old constellations they had counted lost to them for ever. In England it was hot and clear overhead, though the ground quivered perpetually, but in the tropics, Sirius and Capella and Aldebaran showed through a veil of steam. And when at last the great star rose near ten hours late, the sun rose close upon it, and in the centre of its white heart was a disc of black.

Over Asia it was the star had begun to fall behind the movement of the sky, and then suddenly, as it hung over India, its light had been veiled. All the plain of India from the mouth of the Indus to the mouths of the Ganges was a shallow waste of shining water that night, out of which rose temples and palaces, mounds and hills, black with people. Every minaret was a clustering mass of people, who fell one by one into the turbid waters, as heat and terror overcame them. The whole land seemed a-wailing, and suddenly there swept a shadow across that furnace of despair, and a breath of cold wind, and a gathering of clouds, out of the cooling air. Men looking up, near blinded, at the star, saw that a black disc was creeping across the light. It was the moon, coming between the star and the earth. And even as men cried to God at this respite, out of the East with a strange inexplicable swiftness sprang the sun. And then star, sun, and moon rushed together across the heavens.

So it was that presently to the European watchers star and sun rose close upon each other, drove headlong for a space and then slower, and at last came to rest, star and sun merged into one glare of flame at the zenith of the sky. The moon no longer eclipsed the star but was lost to sight in the brilliance of the sky. And though those who were still alive regarded it for the most part with that dull stupidity that hunger, fatigue, heat and despair engender, there were still men who could perceive the meaning of these signs. Star and earth had been at their nearest, had swung about one another, and the star had passed. Already it was receding, swifter and swifter, in the last stage of its headlong journey downward into the sun.

And then the clouds gathered, blotting out the vision of the sky, the thunder and lightning wove a garment round the world; all over the earth was such a downpour of rain as men had never before seen, and where the volcanoes flared red against the cloud canopy there descended torrents of mud. Everywhere the waters were pouring off the land, leaving mud-silted ruins, and the earth littered like a storm-worn beach with all that had floated, and the dead bodies of the men and brutes, its children. For days the water streamed off the land, sweeping away soil and trees and houses in the way, and piling huge dykes and scooping out Titanic gullies over the country-side. Those were the days of darkness that followed the star and the heat. All through them, and for many weeks and months, the earthquakes continued.

But the star had passed, and men, hunger-driven and gathering courage only slowly, might creep back to their ruined cities, buried granaries, and

sodden fields. Such few ships as had escaped the storms of that time came stunned and shattered and sounding their way cautiously through the new marks and shoals of once familiar ports. And as the storms subsided men perceived that everywhere the days were hotter than of yore, and the sun larger, and the moon, shrunk to a third of its former size, took now fourscore days between its new and new.

But of the new brotherhood that grew presently among men, of the saving of laws and books and machines, of the strange change that had come over Iceland and Greenland and the shores of Baffin's Bay, so that the sailors coming there presently found them green and gracious, and could scarce believe their eyes, this story does not tell. Nor of the movement of mankind, now that the earth was hotter, northward and southward towards the poles of the earth. It concerns itself only with the coming and the passing of the star.

The Martian astronomers--for there are astronomers on Mars, although they are very different beings from men--were naturally profoundly interested by these things. They saw them from their own standpoint of course.

"Considering the mass and temperature of the missile that was flung through our solar system into the sun," one wrote, "it is astonishing what a little damage the earth, which it missed so narrowly, has sustained. All the familiar continental markings and the masses of the seas remain intact, and indeed the only difference seems to be a shrinkage of the white discolouration (supposed to be frozen water) round either pole."

Which only shows how small the vastest of human catastrophes may seem at a

distance of a few million miles.