A VOYAGE TO VENUS

DOMINIC HEALY

CURRAWONG

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A NOVEL

By

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CHAPTER ONE.

A WORLD AT PEACE.

The close of the second World War had inaugurated an era of vast changes.

From the wreckage and devastation of that titanic struggle had emerged not only a universal desire for peace but an implementation of that wish. In fact the road to peace of a kind was indicated by the emergence of the Confederated States of America—extending from Alaska to Cape Horn—as such an overwhelming colossus that no Power, or possible combination of Powers, could challenge its supremacy, but the world's peace was not built on such a slender foundation as the dominance of any one group. It emerged, more or less, from a general sense of the menace of universal disaster—a consciousness that the machine had indeed mastered the man, and that another such struggle would wipe out the human race altogether, or leave nothing better than a few Eskimos or wandering cannibals as its sole survivors.

As in a flood hunters and hunted, carnivores and their weak victims, birds and snakes, may be found herded together on some small island all quietened by the common danger, so the menace of racial doom softened old conflicts and relaxed the grip of greed and selfishness. It was all very well, for example, to sell guns to savages to kill a few of one's neighbours, but where was the gain to anybody in building engines that could tear up the whole of the world's cities by the roots?

The first indication of a great social change was the establishment of a series of state-controlled trusts, each of which directed the whole of the productive forces in its own sphere. The old idea of unrestrained competition, with its rule-of-thumb "law of supply and demand," was thrown right overboard, and production and distribution were fully regulated. They became, in fact, matters of planning and statistics.

It was on a calm summer evening of this new era—as unlike the old as aeroplanes are unlike push-barrows—that Professor Fergus Klado, the famed physicist of the University of Boggabri, sat on the broad verandah of his spacious bungalow looking southward over the sweeping silver crescent of Bondi Beach. He was at that moment reading a letter—an amazing document.

Professor Fergus Klado was an elderly man. He had been in his prime twenty-five years before when the second Great

World War had been settled by the Treaty of Bombay, and to-day his hair was grey and thin, yet he bore himself erect and straight as a ramrod and was as slender as in his youth.

He smiled as he sat back in his great lounge chair and digested the contents of the epistle, looking dreamily out over the great blue expanse of water and reflecting on the strangeness of things in general and this piece of news in particular.

A soft footstep sounded on the polished plastic floor of the verandah, and the Professor's daughter Vera emerged from the adjacent parlor. Fergus Klado turned:

"Well, Vera, what do you make of this?" handing her the letter.

While holding the sheet of typewritten paper she smiled unconsciously. A young woman of a little more than medium height, she was fair-haired, plump and active, with a full round face and big grey eyes. She was of what might be described as a jolly type, always on the move, and always ready to find something which merited a soft pleasing laugh or a winning smile.

There was, however, nothing humorous in the letter she was reading. It was from Professor Neale Anders, a colleague of Klado's in the same university, and read:

"Dear Fergus,—You will be pleased to know that that Digger Friend of ours, Freddo Demarr, who went to sleep in Port Moresby during the Big Struggle of 1939-1945, has just finished his long hibernation and, having come to nicely, will be ready, almost right away, to give us the good oil about the days that are gone and the shape of things as they are presently shaped. It was your skill that carried him right along, though I can claim the finishing touches that brought him to fit and well. You must not miss the interview tomorrow night. He will be quite ready for a long talk by that time, and will come before the Academy to get a few pointers about his new surroundings before being turned loose to see the brand-new world for himself. It would be too bad altogether, don't you think, to set him down in the midst of this changed and, to him, incomprehensible world without a little preparation. So the Academy interview is to break him in, as it were. Be there at 6 p.m.—Anders."

"How thrilling! You and Anders worked so hard on that poor chap. You both deserve the victory." She handed him back the letter.

"I flatter myself we do," he answered airily.

"Don't flatter yourself too much, dad;"—this with a smile which would have devastated the entire Academy—"after all, if he'd been awake and well he could have lived that long."

"The point is that he didn't. He snoozed, fair damsel, he snoozed. The world marched on and time bogged. For him it stayed put with both feet in the mire."

"But if he'd only slept a century or so!"

"All things are relative, my dear. He has, in fact, slept many, many centuries."

"Now you're talking right over my head."

"Swim out, darling, swim out. I'm simply telling you that the world has moved along many centuries during the past twenty-five years. Will you compare it, for example, with a thousand years of Greek, Roman, Egyptian or Chinese history? We have seen more change in any five years of our present post-war period than in any previous century."

"Well, I hope I'm not too dense to see that."

"You're not, darling, but unfortunately a lot of people are. For instance, it took the sad experience of mass air raids to prove that the progress of aviation had changed the world more between 1918 and 1939 than it had changed between 1818 and 1918.

"Oh, yes, that's obvious."

"Nothing is obvious to the great mass of the genus homo non-sapiens, little baa lamb, till the novelty falls on humanity's head like a waggon-load of bricks falling from a chimney struck by lightning. Then Mr. Average Man wakes up and starts to run in the wrong direction, or in several wrong directions, till he finds the right one."

"So you think your Digger will be panicky in this new world. You want to break him into it. Like teaching a baby to walk and talk, isn't it?"

"Yes, there are so many pitfalls. You remember, Vera, the Wild Western story of 'Lo, the poor Indian, whose untutored mind clothes him in front and leaves him bare behind?' Whooping across the prah-ay-ahree one day on his wild mustang he saw for the first time in his life an untamed monster from the chimney stack forests of the Baldwin Locomotive Works in Philadelphia. 'Heap big buffalo,' said Lo, 'Heap plenty meat,' and he promptly lassooed the smokestack. At the next station, lo and behold, a lump of raw meat was scraped off the safety-valve dome. That was all that was left of poor Lo."

"But seriously, dad, you and Anders have been very much in earnest about this experiment. You think you can keep people alive—in a state of dormancy, as Anders puts it—for ages, the same way that you kept this fellow going?"

"Why, certainly. If twenty-five years' hibernation, why not 2500?"

"Anders says it's better than making a historic talkie picture. You transfer the people from one age to another, and they just walk in and tell the present world what their own jolly old world was like."

"That's a corking idea, too. It's not my idea of making history, of course, but it has its possibilities. Imagine Hollywood with a cast of real live Elizabethan men and women. People who actually saw and talked with Queen Bess, Francis Drake, Raleigh, Bill Shakespeare, and all those nutties."

"Wouldn't work, dad!"

"No, Vera? You surprise me!"

"It wouldn't. *All* the people of that day were lousy, and what would the fans say if they saw the stars scratching themselves? Besides, they didn't wash in those days—Lizzie never had a bath in her life—and with these new Teknibo Natural Aroma films—"

"Astonishing, my dear, the cold, practical wisdom in that fair head of yours."

"You think I'm a bit dense, don't you, dad?"

"Naturally, my dear. What woman of your beauty wouldn't prefer to be a bit dense rather than lose one iota of it?"

"Go on, I'll chase you," she said, picking up a chair cushion and tossing it at his head.

"Pardon me if I've come to quell a riot."

The voice sounded from the parlor door, which opened on to the verandah, and Vera's fiancé stepped out, laughing at her antics.

Eric Morant was much taller than his sweetheart, and by contrast dark-haired and brown-eyed. Though his profession as a chemist in a big industrial concern involved much application to study and research, he had an athletic appearance and a free and easy manner. He had come unannounced, as he knew that the Klado home was wide open to him, and Vera, caught in the cushion-throwing act, was in no way embarrassed.

"Hello, stranger!" she said. "What brings you here?"

"Hedge-bus," he answered in one word.

That was the popular name given to the fast-flying gyrocopters which could rise almost straight up, and come down, as someone had said, in a chimney. They could take off from alongside a hedge, and, without rising far, land within a few feet of the other side—hence the name.

"Oh, that old crock," said Vera. "You'll land at the bottom of a well some day."

"Slanderer, I meant to offer you a ride to Honolulu and back to-morrow."

"Okay, but shall we be back in time to attend the academy at 6 p.m.? I want to hear dad's patient—you know the sleep-awhile boy—give his first impressions of 1967 A.D. off his chest. I'm awfully interested in dad's experiment."

"She is, Eric, and if it weren't for some of our fossilised old troglodytes, it wouldn't be 1967 A.D. either. For my part I'd much rather date human history from the time when it really began."

"And when *did* it begin?" asked Eric.

"It began, of course," said Professor Klado, "when written records replaced word-of-mouth tradition. You perceive, naturally, that there could be no history built on such a shifty basis as mere memory and word of mouth. Tell a story and let someone else repeat it without writing it down and you'll see what a fine mess of things you'd have that way. You see, then, that only when man started to write could he record history. Prior to that you have the primitive—the world without dates—scientific guesses like the geological epochs if you like, but still guesses. Now the first accurately recorded date in human history happens to be the year 4241 B.C. There is quite a story as to how that date was arrived at, but no matter. It belongs to old Egypt, which gave the world its first writing system. Reckon from there and you know where you're starting from and why. That reckoning would place us to-day in the year 6208—a straight number without any handle."

"Don't encourage him or we'll be in 7208 before he stops."

"Your dad bores you sometimes, doesn't he, fair one?" said Klado.

"But you're the sweetest dad in the world just the same," she answered.

"And you're a flippant young lady," added Eric with pretended severity.

"Don't lecture me, pal. I own up I'm a bit dense, but I do know that if it weren't for highbrows like my dad and my cool, hard-headed Eric, there wouldn't be any scientific gadgets to turn out all those twirligigs, and if it weren't for the twirligigs that make the wheels spin, how would the old hedge-bus get to Honolulu and back before lunch?"

"By Jove, yes, and how could I rescue the fair damsel if we crashed at the foot of Nuuanu Pali and were chased by the wild mongooses there?"

"All right, you two young larrikins. Run along to Hawaii, Hamburg, Helsinki or Heligoland, or wherever you're flying to, and let me ring up Anders. I'll have a good talk to him about that experiment while you're buzzing off."

CHAPTER TWO.

AT THE ACADEMY.

At the evening session of the Academy of Arts and Sciences, Professor Klado, his colleague, Neale Anders, and the subject of their great experiment, Digger Demarr, were the cynosure of all eyes.

Eric Morant and Vera had hopped back from their trip to the Pali—that famous precipice in the mountains behind Honolulu, where the trade winds roar through a gorge and the mist-like rain sprays the luxuriant vegetation with an eternal dew—going and coming between breakfast and tea, and were now among the throng.

Digger Demarr, a fine strapping young fellow, was still a bit groggy on his pins. He had an excuse for that so soon after a sleep of twenty-five years. To say that the case had attracted world-wide attention would convey little. In a world made small by stratosphere navigation, that meant no more than the phrase "talk of the town" in the nineteenth century. The rebuke of Tennyson's knight to the village blacksmith, "You think the rustic cackle of your burg the murmur of the world," would have little sting in a world which itself had become a village, where neighbours could flash through space their emotions as well as their speech. It was easy now to hop straight up into the semi-vacuum of the upper air in one of those "hedge-bus" crates and speed at 1000 miles an hour to any part of the globe. A complete easterly circuit took only twenty-four hours, and, if going westward, one could save on power by letting the old mud-ball rotate below, then diving straight down when it had removed the starting point far to the west and brought some distant city right under the plane.

To date an incident of one's life from "That time I was in New York," or "When I was in Yakhutsk," or "The day we landed in Labrador," would be like impressing your audience with "On that momentous occasion when I polished my shoes," or "That day I took a bath." A traveller who sought to impress by his travels would most likely be regarded as non compos mentis or a bit senile.

Digger Demarr had seen active service in New Guinea, where the dengue-carrying mosquito had proved a greater nuisance than the Jap bombers, and had been invalided back to Sydney after a bout of illness. He also had a piece of shrapnel in him, and in removing this he was not put under an anaesthetic. He was hypnotised and put in a trance while the slug was being removed. For some unknown reason he had shown no sign of coming out of that trance in a hurry, and it was then that Professor Klado had suggested his bold experiment. For some time prior to this, he and his colleague, Dr. Neale Anders, had been doing research work on the prolongation of life by bringing about a state of molecular rest in the bodies of animals.

Every living organism continually takes in new atoms and throws off old ones, and by reducing the wear and tear to almost zero and carefully restoring the slight loss of atomic balance, they had succeeded in keeping small animals alive for long periods in a sort of cold storage. For this purpose they had built a cosmic ray chamber, and when the Demarr case came under their notice they had obtained permission to place him in it. That was in 1945, and he had been carefully tended and treated every day since.

As Neale Anders had stated in his letter to Dr. Klado, their patient, or subject as they preferred to call him, was now out of his long sleep, and, having been built up a little, was ready to appear before the Academy for a world-wide broadcast. The cream of the world's scientists were there. Truly he had a story to tell—eagerly they waited to hear it.

There were few formalities. Demarr sat on the platform opposite Professor Winterton, the microphone between them.

"Now, folks, here and everywhere," the Professor began, "you are about to hear a talk from a man who has come back from another world so to speak. Only a span in time, but what an epoch in progress! First of all our visitor will ask questions. I'll answer them. Go ahead, Brother Demarr. Fire away."

Back came the answer—it sped on electronic wings from the North Pole to the South: "What do you know for Randwick on Saturday?"

The Digger's humour fell flat on a calm audience. Back shot Winterton's reply: "The answer is that there isn't a racecourse left in all the world to-day."

"Gawd blimey, what's become of all the nags?"

"There are more horses now than there ever were, but they don't give the mug punters headaches. They're mostly out in the fields for the fun of the young folks. Most of

them in fact are ponies of the Shetland type, though we still find use for many giant draughts."

"Then I won't go broke on Saturday!"

"Next question, please."

"Do they brew good beer in Sydney now?"

"Yes, as good as you've ever tasted, and we put more vitamins into it. Those are the little things that help to keep you alive and well. You've heard of the publican who hung out a sign on a ten-storey pub, 'I built this on beer.' Well, Digger, history tells us a much better one than that. Before Columbus came to America, the Aztecs of Mexico had built colossal pyramids and temples of enduring stone, drained a lake, and built a city. They even developed a crude form of writing and made records, which raises the question whether they were a civilised people and the Incas of Peru to the south of them merely grand barbarians, for civilisation does not antedate written records. The Aztecs had no beasts of burden and were ignorant of the wheel or pulley. Just imagine how they toiled. Now, these people lived on a meagre diet, the most important element of which was maize. That wouldn't have kept them alive if it weren't for the beverage they drank. Mexico is the home of a natural brewery—the fat-leafed maguey plant. If you tap it with a knife you can readily fill a cup with the sap, which is as good a stingo as Tooth or Toohey ever brewed. The Aztec Mexicans drank it freely, and it supplied the vitamins which were lacking in the maize. Now, our friend only built a pub, but those people built up an amazing civilisation with vast monuments—*on beer!* Do I hear my temperance friends protest?"

"Yes, Brother Winterton," came a thin voice from the centre of the hall. "You will please make it clear that you are referring to the natural juice of the maguey plant and not to the devil's own distillates like tequila and mescal which are brewed from it."

"I agree, Brother Landon, but the natural maguey juice is a fair dinkum alcoholic tanglefoot."

"I'll have a pot of 1970 double X at the first chance," said Demarr.

"Next question," said Winterton.

"Oh, yes. Did the Japs. knock the Harbour Bridge?"

"No, but it has been removed, all except the pylons, to make room for a broader one that carries four railway tracks on the universal structure gauge of fifteen feet."

"Blimey, tracks fifteen feet wide!"

"No, my friend," said Winterton. "Our guest to-night," he added, "shows the usual confusion of thought which prevailed in Australia regarding railway measurements—a confusion which blinded people to the fact that the general run of carriages on the Queensland railway tracks of 3ft. 6in. were as wide as those in Victoria on 5ft. 3in. tracks. This confusion was largely due to the common use of that muddled term 'railway gauge' for 'track gauge.' Actually there are three gauges: structure gauge, which means the width of a tunnel or cutting from wall to wall; loading gauge, which means the height from railtop to ceiling of a tunnel; and, least important of all, track gauge, or width between the inner edges of two rails. On a one-rail system, of which there are several types, it would be hard to define track gauge. Structure gauge determines the width to which railway carriages can be built, and, in proportion, determines their height too. It is, in fact, the *real* 'railway gauge,' if one could properly use such a term. For instance, the railways of the United States, Britain, and New South Wales all had the same track width, but while those of Britain and her Australian copy-cat used a twelve-foot structure gauge and carriages of 9ft. 6in., America built a fourteen-foot structure gauge and ran engines and carriages of 11ft. 6in. on the same tracks with the same clearance of fifteen inches on each side. Now you know why America's locomotives were the biggest and most powerful in the world—more so even than those of India and the Argentine with 5ft. 6in. tracks. At a world conference of railway men held in Addis Ababa a few years ago, it was decided to adopt a world standard of fifteen feet structure gauge, seventeen and a half feet loading gauge, and 5ft. 10in. track gauge. Carriages were built to a width of twelve feet, leaving a better safety margin of three feet, instead of the old two and a half feet, which was not enough for safe working."

"I get you," said Demarr. "You tossed the old decking and archway out, then put down four tracks with carriages twelve feet wide—that's two and a half feet wider than the old ones."

"Yes; also we put on another deck for motor traffic, and in spite of all that we reduced the total weight because we used an aluminium alloy instead of steel."

"And sacked all the painters!"

At this sally of Demarr's there was general laughter.

"No, we gave them better jobs."

"And what have you done with our Harbour—pushed it around a bit?"

"Yes, we linked up Botany Bay with the Harbour at Homebush Bay by a canal running most of the way along Cook's River. What you called Granville is now a busier

place for overseas shipping than Darling Harbour was in your time. It has its own repairing docks. Botany Bay is linked with Port Hacking by a smaller canal, and the upper reaches of Lane Cove and Middle Harbour have been dammed up for fresh water."

"I suppose you've wiped out Surry Hills and the 'Loo?"

"Rather! Scattered Sydney around the landscape in fact. You'll find in its place a score of cities averaging about 45,000 people separated by cultivated strips, and each with its own industries. You will note that the total is less than the old Sydney, but there are towns of the 45,000 standard scattered from here to the Darling River."

"Threw the landscape round a bit, eh? What's become of all the sporting girls in the 'Loo?"

"A good question," said Winterton. "At last a *real* question. Up till now our visitor has been dabbling in trivialities, but now we have got down to a real social problem. I'll answer you in your own terms, Digger. We don't need conscription for Home Service."

"Conscription? I don't get you."

"Oh, so you don't grasp the fact that those sporting girls were conscripts. They were driven by a bread and butter compulsion into that game as truly as any slaves were herded into labour camps by Fascist bayonets. But the plain truth has become obvious to-day. When unemployment died out, that game died with it."

"Are the girls all angels now?" asked the bewildered Digger, and a roar of laughter added to his confusion.

"Not by a long shot." It seemed that many of the ladies in the audience would go into hysterics of laughter at Winterton's answer.

"It simply means," he went on, "that no woman has to sell herself for a living. If she wants to give herself away that is another matter. Even in your day no one flung mud at a pretty girl in her teens marrying a fossilised millionaire of eighty—out of pure love. It may interest you to know, too, Brother Demarr, that we have not yet achieved a society where everyone is sane, healthy and normal."

"Well, blimey, I'm glad you put me wise to a few things. A bloke like me will feel like a fish out of water for a while in this joint."

"You will, no doubt. So now, friend Demarr, and all you folks who are listening in, it will help him a lot, no doubt, if I outline the events of the past twenty-five years. It won't hurt you to be reminded of them, either.

"After the settling up following the Big Mess, we found that a lot of things had happened. In the first place, China,

restored to something like its old frontiers of the 1890's, less Manchuria and Corea, which are to-day independent and powerful states, became a tranquil country instead of an eastern cockpit. Result—it took on an industrial development which dwarfed Japan into the position of a third-rate country—its proper position actually, considering its size and paucity of natural resources.

"India, too, took on an enormous industrial development. It is still, just as it was even in Demarr's day, the most populous country on earth."

"What about China's 400,000,000?" put in Demarr.

"Mythical, my friend, mythical," said Winterton. "No census was taken in China until a few years ago. Then it confirmed what many shrewd observers had surmised—that China was not nearly as populous as was generally supposed. Concerning the 400,000,000 of India, Burma and Ceylon, that had for long been a matter of reliable statistics. The living standard of the Indian masses has increased enormously, and to-day no country of its size equals India in combined industrial and agricultural output.

"We turn now to another country which was among the 'also rans' of the war period—Brazil. To-day it produces more iron and steel than any other country on earth, using the enormous waterpower of the Amazon's tributaries and the southern waterfalls to generate electric power to smelt it. Brazil, home of the world's best rubber, has regained its original position in the output of that article. It is also the world's leading producer of plastic materials used for all kinds of things that were made of metal in your day.

"One of the world's greatest shipbuilding countries to-day is Indo-China, where the jungle teakwood is pulped, impregnated with a plastic solution, then moulded into ships' hulls and frames. Some of these hulls are towed to the remotest parts of the world to be engined.

"The Congo Free State, as it was called in your time, Brother Demarr, is another great centre of industry. In the innumerable waterfalls of the Congo River it possesses greater hydro-electric power than is to be found in any similar area on earth. You will guess from all this that the big centres of production and industry have moved a great deal since your time. In fact, the Indian Ocean, on account of the enormous development of Africa, Southern Asia, the East Indies and Australia has become very much busier than the Atlantic, and its incidental air services are superior. Its seagoing fleets are enormous, and its skies are black with planes."

"What do you want bigger railways for with all those planes?"

"Our railways whirl along freight trains of 15,000 tons at thirty-five miles an hour, and it would take a lot of planes to move such loads. Each instrument serves its own purpose, you know. Even the horse still has his uses."

"Goodo!" said Demarr, "but do you still have poor stiffs standing in the bread line?"

"We don't, and all our industrial changes wouldn't be worth a pinch of snuff if we had." (Loud hear, hears from the audience.) "Industry, production, transport, housing—all such things—have been placed under the control of the International Convention and its subsidiary bodies. It is not my purpose to go into the events which brought about these changes, but I have said enough to give Demarr a guide for his journey through this new world, and it must seem very strange indeed to him."

"Too Irish, yes. I thought you'd still be wangling the European boundaries."

"In the first place there aren't any boundaries to wangle, and in the second place Europe is a thing of the past. The whole of it, from the Urals westwards to Portugal, is not equal in industrial output to what was once the United States, and when it comes to places like India, China, Brazil, Central and South Africa, any two of its former states wouldn't make a second-rate province.

"Now, Brother Demarr, you grab a stratosphere plane and have a 'hop around,' as you would call it, to see things for yourself.

* * *

Doctors Klado and Anders, with Vera and Eric Morant, stayed in the Academy hall after the broadcast had finished and were discussing it.

"A great success, Dr. Klado," said Anders. "I didn't realise till I heard that poor chap and Winterton talking that we'd moved so far in a mere half of a lifetime."

"You know, Dr. Anders," said Klado, "the acceleration of the rate of human progress is like the increasing speed of a falling stone. You know how a falling stone starts off very slowly, then increases its speed the farther it travels."

"There you go, dad, running off into your old mathematics," said Vera.

"If you prefer to be poetical, young lady," said Anders, "you can say that we have moved from the stagnancy of the swamp to the rushing of the cataract. Take the swamp period as the stagnant centuries that followed the fall of the Roman Empire. Now we're in the cataract. Our past twenty-five years equals a former 2500, but suppose we take 2500 years of our present cataract rate of human progress—

then what lies beyond that? Conquest of space, flying off to other planets perhaps—who knows? Maybe we *could* put someone to sleep an actual, not merely a figurative, twenty-five centuries."

"By Jingo, Neale," said Klado, "you said a mouthful if I may put it so."

"In most unprofessional language, of course, none the less quite true. Seriously, how do you fancy the idea?"

"Wonderful. I think it could be done."

"Do you really think it could be done, Dr. Klado?" asked Eric. "Would your machine and apparatus stand up to the strain of keeping a sleeper in cold storage, as it were, for a hundred times the duration of Demarr's doss?"

"A hundred," said Klado enthusiastically. "Why not a million? The principle is exactly the same. You agree, Dr. Anders?"

"I do, quite. The process would be the same, but the attention necessarily would have to be carried on from generation to generation. A matter that could be arranged, I am sure, by training attendants to take the places of others as time and other factors dictated."

"How'd I look after two thousand years in cold storage?" put in Vera flippantly.

"Perfectly charming, as you are now," replied Anders half-teasingly. "Let me traverse the process as it worked out in Demarr's case. Firstly, there is the conditioning course; perfect diet, exercise, sleep, complete mental balance and so on. After the proper state of fitness has been produced by careful training, the subject is placed in the Lethargy Inducing Chamber. Here he is put into a complete coma by hypnosis. All waste matter of life's processes are wiped off, as it were, and the subject is then moved to the Stabilisation Chamber. Here a state of perfect stabilisation of the atomic and sub-atomic particles of the body is brought about. Bodily wear and tear is ended and the breaking down of tissues averted. Your subject then becomes like a block of marble, and this condition can be maintained indefinitely, given the necessary care."

"The Stabilising Chamber, Dr. Anders, would need to be a place of some size. We managed all right with a makeshift in Demarr's case, but you remember you were quite sceptical of success yourself."

"So what would you suggest, Dr. Klado?"

"Quite a fair-sized laboratory or special hospital, I should say. One big enough to house several doctors, nurses, chemists and scientific attendants. The central part would be a low-pressure chamber in which the subject would be

placed. This would be entered through air-locks by attendants equipped with oxygen masks. Absolute uniformity of light, pressure and temperature would be necessary, and also perfect silence. Under these conditions I believe that a subject could be preserved indefinitely and wake up in possession of all his faculties."

"Very nice, too," said Eric, "but on whom would you try it out? Not so many shell-shocked Diggers these days, you know."

"I think that we could choose a better type of subject than Demarr. That poor beggar hadn't much of a message for this generation. Clearly he understood little or nothing of the make-up of the society into which he was born. Now suppose instead of a fellow like that we took a well-informed young man—or, as I would prefer—a young man and a young woman."

"Why, dad?" from Vera.

"Because, my young precious, you're only half a human being."

"Oh, you are kind. When was I sawn in two?"

"Millions of years ago by a natural process of the division of labour."

"I'm still in a fog."

"Naturally! But you do know that the job of keeping the race going has been handed over to one half of it, leaving the other half to grow bigger, stronger, tougher—"

"And more conceited!"

"Maybe, daughter mine, but some of our radical friends like August Bebel, who preach that the physical differences between man and woman are largely of man's evil contriving and don't exist in the animal world, should take a look at the male and female gorilla. He could put her in his pocket if he had one."

"You're no believer in equality of the sexes, dad."

"Equality of light and shade, my dear: equality of rainbow colouring. Where was I before this unseemly interruption?"

"Telling me I was sub-human."

"No, no! vile slanderer—telling you that a woman isn't a complete human being, that a man isn't a complete human being. Together they are the unit of the human race."

"In chemical terms, my charming young friend," said Anders pedagogically, "the salt of the earth is a compound, not an element. Sodium is an element; chloride is an element. Together they make the compound salt."

"Oh, yeah," said Vera, "and each element by itself is rank poison. You boys think of everything, don't you?"

"We've got to," said Anders. "In an excursion like this we have to take care of every jolly atom and electron or the whole scheme goes phut. Now, how would *you* like a voyage through time and space like that, young lady?"

"Splendid, and bring my boy friend along so that we could set up house in 1970 A.D. plus 2500, that's double four seven nought After Dark. What a splash we'd make as the only twentieth century folks in society. We'd be invited everywhere. Would you take it on, Eric?"

"Fine," said Eric, "and suppose we rolled in our marbles in the what-do-you-call-it incubator. We just wouldn't know a thing, would we?"

"Of course not, silly boy. We'd be together, and if we pegged out together neither of us would be left behind to worry. Then look at the fun we'd have if it turned out okay. Those stratosphere flights and deep-sea dives wouldn't be in the race."

"Dad," she added more seriously. "Do you really think there would be a sporting chance of success that would warrant taking the risk?"

"My dear, there never was anything worth while that didn't involve taking a risk. Imagine the risk that Columbus took, and how extremely lucky he was not to bump coral, or be overwhelmed by a hurricane, in those cranky craft of his. But if you were his wife I'm sure you'd be the last person in the world to discourage him from making the voyage. I'm proud of you, Vera, and that's all there is to that."

"All right, I'm agreeable, too," said Eric. "If we don't make it we don't, and if we *do*, oh boy, what a thrill."

"And we'll still have each other in the Away Beyond," said Vera, a little romantically.

"Just as I would have wished it," said Klado. "You were never more like your dear, dead mother than at this moment, Vera. Let me take you in my arms and kiss you, child."

CHAPTER THREE.

THERE WERE THREE VOYAGERS.

Nayella Gaba was a bachelor mother.

She was also Vera Klado's cousin, and rather jealous because of her engagement with Eric Morant, whom Nayella had known long before he had met his fiancée. In fact, Nayella had introduced the pair, and that did not improve matters from her point of view.

It was not that Nayella cared for Eric so much, but the calm way in which Vera had marched him off from the first day of their acquaintance annoyed her. "That dame," she told a girl friend, "just said, 'That bloke's mine,' and grabbed him—the cooing little can of molasses."

Nayella was just like that—perfectly candid about things. Of course, she was a brunette. You couldn't expect her to be hard and practical, and with a good deal of that feminine mannishness that a lot of men like if she were a blonde, could you?

Her face wasn't pretty. Some cats would have called it ugly, but if it was, it really had a lot of charm which no merely pretty face could have possessed. She had glossy black hair to crown a high forehead, and big, bold eyes that could swear at a man, without saying a word, and her nose was much too prominent. But it wasn't Oriental or ungrammatical (that is to say Non-Aryan, seeing that "Aryan" is a purely linguistic term). No! That type of nose is common to all mountain dwelling people from Bavaria to Afghanistan, and if anybody tells you it belongs to any tribe or sect, he's just a Himmler poll parrot, a boloney shooter, and a hamburger hooey machine. Her mouth was good and froggy, and when it opened wide showed a lot of big sound pegs, and her rich contralto voice sounded surprisingly soft and friendly, even if you were looking at her hard dial when she spoke.

That girl was tall as a fair-sized man—5ft. 8½in. exactly. She wasn't reedy, either. None of your Hollywood bunko for Naya. She was just eleven stone and not a bit stout at that—a trifle angular in fact—and her shoulders would have utterly wrecked a Hollywood mush and molasses plot because they were broad and fine, and her arms were firm and strong, and her hands big enough to take a good grip of an axe-handle, and her finger nails were nice and white, and she didn't tiger-claw them with points and blood-red japan.

Now that's enough to tell you about Naya, but you should know it all because there's going to be quite a lot of her in this story. And I forgot to tell you that she was tough. "Tough as brattice," as one cat said of her, but she *was* a cat. Nayella had parted from her husband. That cat I just mentioned said it was because he was a fine big stamp of a man instead of a weedy little runt that she could order about, but that cat was a little five-foot squirt herself, and she was the one that pirated Naya's husband and gave her a lot of cheek over the long-distance wire from Melbourne.

So you couldn't altogether blame Naya for that, but it *was* tough the way she treated her little boy of five, packing him off to a boarding-school with an, "Oh, blast it. Let him grow up to be just like his old man."

Strange that such a contrasting character, having listened to the Demarr broadcast, had arrived at the same adventurous conclusion as Vera. It was like her, too, that she needed no prompting that the experiment might be carried further. She had listened in with a friend, and when it was over said in her own forthright manner:

"What a dope that Demarr is! He knows nothing. Now, if I could jump ahead a thousand years."

That was just like her—always thinking with the personal pronoun in big, black type. So she rang up cousin Vera, and in that rich, deep vocie of hers said:

"Vera, darling, how about bringing yourself and Eric along to-morrow night. I'm so awfully interested in that performance of your dad's. Wasn't it just simply *wonderful?*"

Vera said that she'd think about it but was rather busy. She wasn't keen on cousin Naya at all, but that was the nicest way of putting it.

Then Nayella went on playing a Handel Oratorio in that organ-like contralto, and Vera, having an ear for music like most girls, began to think that Naya wasn't so bad after all. In fact, if she kept on talking long enough she might have been "just a dear." It was like drinking champagne with a man you'd just called a hunk of outlawed biology. After a few drinks he's not a bad fellow at all, but if you keep it up too long you'll want to pick up a gun next morning and remedy his parents' negligence.

It really was strange about those two girls. If Vera had met her cousin as a stranger, she'd have summed up that pan of hers in a lightning glance, and ticked her off as a fair cow even if she *was* a brunette. But the two had been brought up together, played together, fought together—Vera could swing a dirty left too—and now, although Miss Klado didn't think that her cousin was too nice, she could not place her as easily as she would have a stranger.

So Vera changed her mind at last and said that she would come, and Cousin said, "Oh, you're a *darling*, Vera." And Vera forgot to say she knew it and didn't need a hard-boiled egg like Naya to tell her so, and Naya cooed: "Oh, I could hug you," and Vera thought, "Grizzly bear — you could, too," but didn't say it, and everything was sweet.

Now behold the peerless Gaba in the kitchen recess of her flatette home. Why she used it at all I don't know, because she could have had beautiful meals delivered under sealed covers from a splendid nearby restaurant, but she used her

kitchen instead, and when I say that she used it, I mean that she didn't use it at all—you follow me?

Take another look at her.

She's all dolled up in a hair ribbon that isn't tied, and a brassiere with one string busted, a pair of cami-knickers that are stained where she sat on the stove, and a pair of felt slippers with the toes out. The floor hadn't been swept and the stove was greasy, and the enamel tray under the jets was full of crumbs and scraps. Mind you, I'm not criticising the girl. She was just a dinkum Aussie flattiste, and if any one of your smart Yankee doughboys wants to toss that old American gag that English girls are the worst cooks on earth, just ask him how long does he think he's been in the country anyhow.

But if the lady had known that gas stove jets often leak and coal gas isn't wholesome, she'd have kept the main tap of the stove turned off, and there wouldn't have been gas in the kitchen, and she wouldn't have had a headache and taken two aspros that morning and followed them up with the cigarette she was puffing.

There was no cloth on the table, which was quite all right for the laundry, because there were spots of jam, honey, spaghetti, tomato sauce, baked beans, worcester sauce, chutney, picalilli, olive oil, milk, cream, tea, coffee, butter, bacon fat, eggs, mustard and meat extract on the board. Also there were flies, flies, damn your blasted eyes—and flies after that.

There were crumbs on the sink because there was a bread board there with an unwiped saw knife on it. There was an uncovered milk jug, too, subject to enemy action from the Stuka-fly dive-bombers. There were also open tins of jam, molasses and the other things just mentioned, but you couldn't blame her for the fact that the aluminium saucepans were pitted, as most people don't know they get that way unless they are put away dry at night. There was carbon on the bottom of one pan where the food had burned up—enough of it to black a truck tyre. There was burnt milk on the bottom and sides of another; there was gummy rice pudding on a third, and there were shells around. Nothing more worse than hard-boiled eggs, fortunately, for the war was over. Tea leaves left in the teapot, a sink choked with rinds and potato peelings, a pile of unwashed dishes under the tap, and what more could you wish to make up the perfect kitchen?

Naya had a wonderful precision of judgment. She took it all in in one sweeping glance and summed it up magnificently in two words:

"Oh, gawd!"

Then she flashed another look and decided again:

"Oh, hell!"

At this critical stage her little pet mouse, Winkypoo, came to the rescue. He slid out from beneath the up-ended garbage tin where he nested in the corner. Was Naya afraid of a mouse, you ask me? Well, don't!

"Oh, Winky, darling!" she blurbed, and as the little blighter balanced cheekily on his hind legs begging for a titbit, she spat with amazing accuracy into his left eye, knocking him endways.

Winky picked himself up, rubbing the saliva and nicotine off his head with his forepaws, and what he called Naya in mouse language wouldn't pass the censor.

"Mummy's 'ittle lamb! Did mummy hurt her 'ittle Winky lamb?" observed Naya with charming feminine logic. Then she placed a saucer of milk in front of the tiny rodent's refuge.

Her mind was made up now. The advent of the little mouse seemed to have given her strength. Leaving the kitchen just as it was, she flung on a dressing gown over her rags and dashed out to the nearby delicatessen. She came back soon, plumped some tins of baked beans and spaghetti, some "splits" of lager, and some buttered scones on the table.

"There, that'll feed the stinkpots," said the charming hostess.

It was well for Vera and Eric that their hostess's parlour was in marked contrast to her kitchen. The Gaba knew enough to avoid the useless frills which meant hard work. Her windows had no curtains, just plain roller blinds, and there were only a few small rugs on the well-polished linoleum. These could easily be vacuum-cleaned, then tossed out into the sunshine or hung on the clothes-line to sterilise. The furniture consisted simply of a good lounge suite, a table, and a small sideboard which her strong arms could easily push around, and she left no dusty corners when she went over the floor with the vacuum cleaner. Unlike most housekeepers, she used it occasionally with good effect on the papered walls, too, and hopping on to a chair would, with her long arms and good height, put the nozzle easily to the ceiling and clean up there. The result was a bright and shiny parlour—severe but wholesome.

"So glad you've come, dear," said Nayella to Vera when they were all settled down. "Now I'm just dying to hear more about this experiment of Uncle Fergus's, the dear old

boy. Fancy being able to keep that Rip Van Winkle in cold storage for twenty-five years!"

"Dad says he could do the same for 1000 years."

"Really, the old dear. He'd have long whiskers by then, wouldn't he?"

"Oh, I don't mean that he'd be there supervising the job all that time. Dad will take the knock like the rest of us when his time comes, but the work would go on from year to year in other hands till the subject woke up."

"Really! What a thrill to wake up in a thousand years' time."

"That's just what we were thinking," said Eric. "In fact, Vera and I are contemplating some delay in our setting up house on account of that."

"Really. I thought that you two would be just about going into partnership by now."

"Oh, but a trifling delay of two thousand years won't hurt," said Eric coolly.

"That's just Eric's way of bluffing it out, Naya. Really, we've just made a big decision, and I suppose it hurts a lot more than either of us would care to admit."

"Why, what's the very big decision, and why does it hurt so much?"

"To know that we're giving up all our friends and immediate prospects on the hazard of lighting down in quite a new and strange world a few thousand years hence."

"Good gracious! Does Uncle want to carry on the experiment with you two?"

"He does, and we're quite ready to have it on," said Eric.

"Well, what an adventure. I was about to ring up Uncle Fergus and put the hard word on him myself."

"You were, were you?" said Vera. "You know what you're tackling, of course?"

"Of course I do. A dip into the future a thousand years hence. I can take it—unless you want to stop me," she added, looking at her guests questioningly.

"No, I don't think we should," said Eric. "The old gag applies—it's your own neck you're risking."

"And it won't be a thousand years; it's to be 2500," said Vera solemnly.

"Who cares? Two thousand or two million. How can any of us say what it is going to be once we are asleep and in the hands of others? Your dad can't order future generations what to do with us, can he?"

"No, I suppose not," said Eric. "All that he can do is to wrap us up in a package and ask for delivery on a certain date, and if the post is delayed—"

"Let it be jolly well delayed," said Naya.

"You'd really like to come along then?" said Vera.

"I really feel I must. After hearing that talk of Winterton and Demarr's I feel like building a machine of my own and hiring a couple of eternity chauffeurs if you knock me back."

"We won't knock you back, Cousin. If dad and Neale Anders are agreeable, you can come right along."

"Okay, then. I'll call up uncle and we can arrange it."

And she did. Nayella Gaba had a way with her.

* * *

"Sailing Day for the Time Voyage"—that was the rather fanciful title given by the daily papers to the day the three young people entered the Stabilising Chamber.

The great experiment of the two eminent Boggabri professors, Fergus Klado and Neale Anders, was followed with the keenest interest throughout the world.

"Deuced lucky world to have nothing more terrible to get excited about," was Klado's own comment, and that, too, was flashed around the world with all the other chatter, descriptive matter, discussion and incidental controversy.

The newspapers, radios, television sets and news-flash ribbons were all full of it, but the greatest interest of all had been stirred up by the "Talkie-Smellies." This was the rather inelegant title given to the new Teknibo Natural Aroma pictures which had been developed just a year ago and—so rapid was the technical progress of the world—were now being shown in every theatre on earth. They were soon to be followed by the Psychological Reflex "Soullies," which laid bare all the hidden and complex emotions, and by means of which the human brain could vocalise its weirdest ideas on a sound reel without the medium of ordinary speech. But the "Aromatics" were bad enough for the diehards of a generation which was being hustled off its feet by the rapid rate of progress.

There now arose harsh critics who said that the beauteous Vera "smelt punk" and wouldn't convey the right flavour from the twentieth century.

Digger Demarr had been following events with keen interest, too, and when he heard this criticism his comment was: "The ——s ought to have lived in *my* time."

Of course, that was good enough to make front page news also.

Fortunately, the International Soap Combine now controlled the whole of the world's output of that article, and body odour advertising had perished from the face of the earth. Few people cared whether Vera was attar of roses or jockey club, and the diehards took Nayella for granted.

It was Naya herself who made the hit of the day. Some of the diehards had protested that the idea was too daring. They stated solemnly: "It is forbidden to man to meddle with *some* things." And Naya, gazing with big, bold eyes from every screen on the globe, had asked quite naturally in that big, soft, contralto voice of hers:

"Who the hell forbade him?"

That ended the controversy.

The newspaper reporters wanted to know all kinds of things.

"What do you expect to find when you wake up 2000 years hence?" one of them asked Nayella.

"Possibly a man," she answered promptly, and that, too, went on the front pages and the news boards all around the world.

So everything went off swimmingly, and an orchestra played soft music as the voyagers were lulled off to sleep. The professors were photographed a hundred times alongside the strange outfit. They talked endlessly about the interactions of cosmic rays, solar rays, and the vibrations of the immaterial, which had nothing at all to vibrate. But nobody listened. They were all too excited for that. Then the three young people, prepared as carefully as science could prepare them, were moved off into the great Stabilising Chamber, the doors were closed, and they were passed over to the unremitting care of the attendants.

That attention was to go on and on from generation to generation, through years, centuries—tens of centuries.

Then at last in the year 4470—

But was it to be the year 4470?

We shall see.

CHAPTER FOUR.

THE GARDEN OF FRUITS THAT WERE SHAPED.

It was a green and pleasant land, and a vast expanse of sparsely timbered country spread far and wide.

Dominating the scene stood a tall, spreading tree with broad leaves of deepest green, and beneath that tree three people lay softly sleeping. Above them the canopy of heaven was packed with fleecy clouds, beautiful rolling cumuli, which packed up into all manner of weird shapes, then lazily floated away in the gentle breeze, to be chased by others rolling up into more fantastic shapes.

There were certain features about the sleepers, a young man and two young women, which suggested a certain period and a country called Australia, but it needed no second glance at that grey sky and cool, pleasant landscape to tell that they were a long way from home. Glaring sunshine and hard-blue sky colouring were quite alien to that place, and one could easily see that those abundantly watered meadows had never known drought.

Yet a close observer would have noticed something weird about the setting. Great, rolling meads—one could almost picture the elves dancing on them in the starlight—sparsely studded with trees and covered with lush grass, stretched away to the horizon, but stretched in a vast, chilly and eerie silence.

If this were an English landscape—and so it might seem with its chivvying clouds and changing colours—where were the grazing flocks? Where were the golden-throated songbirds to fill the countryside with plenteous sound? Void, void of all life save the three sleepers was this silent, still, yet smiling world. There was not even an insect crawling on the grass.

The sleepers breathed gently, heads resting on curved arms in the soft herbage. Suddenly the smaller of the two girls moved, opened wide her big, blue eyes, and sat up.

"Eric, Eric!" she called softly.

At that call the young man addressed woke and sat up. The other girl stirred and woke up also, and now all three, wide awake, took in with staring eyes their strange surroundings, beautiful yet fraught with a subtle menace, which they began to feel without understanding—that total lack of living companionship.

The taller of the two girls, who was also dark-haired, sprang to her feet, jumped and flung wide her arms, putting the blood into circulation. The others followed her example less energetically.

"Gosh, Vera," said the tall, dark-haired girl, "doesn't it feel good to be alive?"

"You bet it does, Naya," said the fair-haired, blue-eyed girl who was called Vera. "Look at Eric throwing handsprings on the grass. You must be feeling pretty good, too. It's the spring-time weather, darling. Doesn't it make you want to sing and throw things around."

"Say, where the blazes am I," answered Eric, "out in a paddock with two charming young ladies, one blonde and the other brunette?"

"And for all you know, a horse might have walked into the ladies' bedroom overnight," said Naya.

"But where are we?" repeated Eric. "It seems we're out on somebody's lawn. Looks like the morning after the night before. Vera, dear, does your mother know you're out?"

"And what happened at that terrible party?" chimed in Naya.

"Pull yourselves together and brush your brains," said Vera. While quieter than the other two, she had been thinking harder and was the first to sum up the situation. "Do you remember where we were when we lost consciousness?"

The others quietened down suddenly. Their grave looks were now almost comical by contrast. Eric spoke first:

"Now, let me see. As I remember it all now, I, Eric Morant, and you, my sweetheart, Vera Klado, and your cousin, Nayella Gaba here, were all put to rest in that what-do-you-call-it machine."

"And we were promised a ride of 2000 years, weren't we?" asked Naya.

"Two thousand, was it, or 2500?" asked Vera.

"Oh, a jolly trifle of 500 years won't matter one way or the other," said Eric.

"Not unless the Time Chauffeur has gone batty and put the Jigger into reverse gear," said Naya. "Five hundred years further back into the primitive might make a pile of difference."

"Too right! Bally awkward to meet Mr. Dinosaurus, Brontosaurus, Icthyosaurus, or any of that old-time gang before breakfast when you haven't got a shanghai," said Eric.

"Or be dive-bombed by Mr. Pterodactyl, the bird with teeth a foot long," suggested Naya.

"When you two smart guys have done wise-cracking," said Vera, "you'll wake up to the fact that we're here in a land that we know nothing about, under conditions we are wholly ignorant of, and not one of us has a weapon of any kind."

"Cheerful soul," said Naya. "Oh, you are a comfort, dear."

"I'm facing facts, anyhow," retorted Vera.

"Don't argue, girls, don't argue. Now leave it all to Eric the Bold."

"Oh, sure," said Naya, "the man of the party. He's sure to find the way to lead us out. Rescue the fair damsels, Sir Knight."

"No, no! One fair damsel and one brunette."

"Okay, to the rescue, Dandelion Heart."

Eric paused and, putting on a dramatic air, stood with hand on forehead. "I have it," he said. "Girls, you've just been rescued from a dire and deadly peril by the knight on horseback."

"How?"—from both of them at once.

"By using a bit of bally common sense. Consider the desperate plight of the man who thought he'd swallowed his false teeth. The agony and anguish! Then he finds he hasn't swallowed them. Rescue—a happy rescue."

"Why, what the hell—" began Naya.

"S-s-sh! Calm down. Deduction, logical deduction, girls. Item one: we didn't come here, we were placed here. Item two: the scientific gents who put us here were far too wise to take risks on such an obvious danger as wild animals. Item three: the blighters are probably watching us. Item four: there's something fishy about the place because its fishless and flyless. Can you imagine even a garden lawn without bird or insect life of some kind? Look around you. There's not a sign of life anywhere. And look at that foliage. Can you see any sign of fungus or parasite?"

"No fungus—no parasite," said Vera.

"Not a parasite on earth," said Eric. "Have I slept a thousand years or a million?"

"We're a long way from Sydney," said Vera; "the sky, the trees—"

"And what's the first thing to do in a new world?" asked Nayella.

"Eat," said Vera. "I'm hungry."

"Aren't we all," said Eric. "Let's toddle."

They linked arms and tripped across the lawn-like greensward to a natural hedge. Eric and Nayella cleared it at a bound. Vera climbed over.

"Hello," said Eric. "What's this? Girls, we're just in time for lunch."

Close to the hedge what looked like a large orange tree spread its sturdy branches. They were laden with fruit—the queerest kind of fruit that mortal man ever gazed upon—cooked and dressed turkeys wrapped in transparent cellulose. Attached like any other fruit to a stout stem, they dangled in the breeze from the limb of a tree which, apart from its strange fruit, seemed quite commonplace.

With a quick turn of the wrist Vera removed one.

"Now plates and knives and forks," she said.

"By Jingo, you're a fusspot, aren't you? You find cooked turkey on a tree and expect to find knives and forks."

"You're not the only logical person, Master Eric. Where you can grow turkey it's very much easier to grow the cutlery and dishes. Here are your plates for a start—nice, broad,

strong, white leaves—here are spike affairs for forks, and these blady-grass leaves will do for knives."

At a first glance those knives might have been mistaken for long, narrow blades of grass, but they were stout-backed, stiff, and sharp-edged, and the stem made a very good handle.

In a few minutes the meat was carved up and had all disappeared. It was delicious poultry all the way through, and no bones.

"You can't have turkey without good liquor to wash it down," said Nayella. "What's in those bottle-shaped gourds over there?"

"Champagne, foaming lager, pineapple juice, lemon squash, or at the very least soda pop," said Eric. "What less could you expect in a garden like this? Don't drag off the crown seal when removing from the stalk."

He took three bottles, handed his partners one each, and opened his own.

"Not bad, not bad—good pineapple juice."

They drank the cool, fresh liquor and marched on. They had gone only about three hundred yards when the scenery suddenly changed. Trees gave way to bushes, and they emerged on an open, rolling slope and beheld a sight that took their breath away. Two huge and towering pillars of polished stone, not unlike the red-veined marble of Borenore, New South Wales, stood about forty feet apart and were joined above by an arch. At the foot of the one on their right was a big golden tablet inscribed with words in the familiar Latin characters adopted by most civilised countries. They read—or tried to read:

CHI TIU JARDENO ENHAVAS MULTAYN STRANJAYN FRUKTOYN. ARTO KAY SCIENCO ESTAS FORMIGITAY ILIN TAMEN ILI ESTAS FRUKTOY. HOMARTO NUR FARAS LA ARBOYN PRODUKTI LAU ORDONO ANSTATAU SENREGULE.

By a sort of tacit agreement among themselves, the voyagers had decided that they were not to express astonishment at anything in this strange, new world. It was to be just a free-and-easy, self-directed, tourist trip in that cool, crisp, spring air. So Nayella was trying hard not to seem impressed by that imposing work of art when she enquired:

"What's all that Dago lingo, Eric? Can you read any of it?"

"As far as I can see," said the young man, assuming his most learned manner, "it seems to be written in a sort of synthetic language. You know that there are a host of words

common to most European languages—though their form be slightly altered like the English and German 'vater' and 'father.' This seems to have been built up in that way.

"Observe how the 'jardeno' is half-way between French 'jardin' and English 'garden.' Note also the French 'la' for 'the' and the 'estas' from 'est,' which in both French and Latin means is. And there are quite a number of words even in this little text which make it quite clear that the language is a synthesis from the common words or roots of several European languages."

"Good for you, Eric," said Nayella. "After that nice little speech, professor, you should be able to read it standing on your head."

"I'll do my best, Naya. Here goes:

'This garden has many strange fruits, which, though changed by art and science, are still fruit. Man's art has merely made the trees produce to order instead of haphazardly.' "

"What's it all about?" asked Vera.

"There's a strong suggestion," replied her fiancé, "that science *has* progressed quite a lot on this jolly old mudball since we went off into a tiddleywink. Mass production of eatables, as I see it. They did some jolly clever things with plant species even in our time, but this knocks Luther Burbank cockeyed."

"Well, after all," said Vera, "changing oranges into grapefruit isn't so far from changing them into wrapped, roast, boneless turkey, is it, dear?"

"Quite a different process, darling. In our world the plant leaf turned the radiant energy of the sun into food, and the cow had to chew it up before we had meat and milk. There's been a short circuit of the process here, it seems. They've sacked the cow, and the turkey gobbler and the little red hen, and here's the whole scheme from root to cookshop. A bit cramped, isn't it? But we must bow to progress."

"Oh, yes, yes, worthy guide, philosopher and friend," said Naya. "After all, we *do* expect to see things on a thousand year tour, don't we?"

"This looks like an entry to some place," said Vera. "Let's move on."

They marched accordingly and came up to a sign: "Food garden." An endless array of shrubs spread before them.

Here were the sardine trees with fish-fruit packed in olive oil, and can openers attached. Here, too, were oyster plants with bivalves on the shell, egg-plants with hard-boiled ostrich eggs, caviar and pate-de-foie-gras bushes, lobster and mayon-

naise vines, fried fish shrubs, and a host of other novelties.

"Look out!" shouted Naya to Vera as a flexible, heavily-laden bough swung low, nearly brushing the top of her head.

"Boloney!" retorted Naya.

"Sure, it's boloney. You'll be busted in the eye with a cartload of it if you don't move."

"Okay, sister. Spot the little jar-trees. My, what a layout for an out-of-doors kitchen!"

There were screw-top jars swinging from those trees—hundreds of them. Jam in jars, honey in jars, lemon butter, spread cheese, nuts, candy, fish paste, barley sugar, jelly and a host of other things.

Then there were the biscuit trees. They carried their fruit in big, round, glass jars with tight lids, and there were creams, puffs, rolls, shortcakes, jam sandwiches, chocolate-dipped, candy-coated, and all the other sorts.

Rows and rows of transparent, succulent canes! There were the long soups, the spaghettis, the chicken broths, the malted milks and a lot more. Coconut husks that swayed from the stout-trunked palms had zip fasteners, and were stuffed with preserved figs, glucose candies, dates and sweet litchi nuts.

From the Delicatessen Forest the voyagers passed along to the bottle trees. Some of them were familiar enough in outward appearance. So like the big boled bottle trees of Queensland—those huge natural puncheons sloping in towards the top and crowned with leaves and branches. "Rather like the leaves on jolly old Bacchus's brow," as Eric put it. But what tropical tree ever grew with a spigot conveniently placed, or swung a neat and gaily coloured plastic pail from a handy limb?

Bottle trees! Yes, scores of them, but what thirsty swagman on the long, hot and dusty trail from Barcaldine to Blackall, if he encountered a tree laden with long-necked lager beer bottles, with bunches of crown seal openers handy, would doubt that he was seeing things that were not there?

There were stone jars and demijohns, fluted green bottles and clear ones with the golden liquid showing bright and sparkling. There were square bottles, round bottles, sealed jugs, decanters, flasks and flagons, and there were vats, hogsheads, barrels, drums, pipes and kegs. There were acres of what looked like clear sugar cane, but the canes were tubes filled with sparkling wines, and there were melons with spigots attached.

And so the visitors might have rambled on for hours, but suddenly they made a new discovery and found themselves absorbed in quite another interest.

CHAPTER FIVE.

THE GARDEN OF THINGS THAT FLEW.

They had rambled into a sort of amphitheatre with natural seats on a level lawn of grass, which was coloured a beautiful rich purple, and found themselves facing a large screen made of some sort of glass in considerable depth. Light reflections from the lawn gave a clue as to the purpose of its construction. It was intended to throw a three-dimensional picture—one with depth as well as length and breadth. The life-like nature of the figures which soon appeared on that screen was simply startling, and as the trio gazed at it a voice, coming out of the screen, began to speak:

"Voyagers from afar in space and time, how do you like the new scenery? You are fully aware by now that you are in a new world and age. Also you have accepted your new environment like sensible people, not giving way to superstitious awe or dread. Such being the case, we shall now present to you on this screen the figures of two people with whom you are quite familiar. You will see them moving about in a perfectly natural way, you will notice every detail down to the laces on their shoes as they stand before you—but that is not all. Don't be alarmed if they actually leave the screen and come out to meet you, or sit beside you on the benches and talk to you. You will not be seeing your friends in person, and you must not be alarmed to find that you can poke sticks through them. What you actually will be seeing is a sort of disembodied entity, or physical reflex, which is merely an advance on your television screen with its talking figure of a friend. You are assured that you are dealing with realities and not with the occult or mystic. We ask you to treat this novelty as a continuance of your educational experiences in the sub-atomic garden.

"You know, friends and voyagers," the voice went on, "that bread is the basis of life. Man doesn't live by bread alone, but let him try to live without it—the poor cow! Culture is based on material progress, and if you folks hadn't eaten in the garden this morning, you'd be much more concerned with your hunger by now than with the display that we are about to give you. Food production comes before art. Do you catch on? Right.

"Now meet two of your cobbers."

The voice ceased, and the trio gasped as there stepped on to the screen Vera's father and his friend, Neale Anders.

"Hello, Vera; hello, Eric; hello, Nayella," said Klado. Anders merely smiled and nodded to each of them.

"Surprised to see us, eh," Klado went on. "We're here and we're not here, so to say. Ask us questions, if you want to, but you are requested to keep them on certain lines. Nothing personal, you understand. These things will be explained to you later."

"The idea," put in Dr. Anders, "is to familiarise you with your new surroundings, just as we did with Digger Demarr, you remember. An educational process, you understand?"

But this was more than human nature could stand. Vera burst out: "Dad! dad! are you alive and well?"

"Sorry, Vera darling, but that's just the kind of question that's not to be asked or answered at this stage."

"Then suppose we let you do all the talking for a start, old gabby spook," said Eric. "We can ask questions afterwards. Give us the good oil, shadow sparrer. I don't care whether you're a spark from the astral plane or an electronic impulse from the square-root-of-minus-nought-dimensional so long as you give us a fair spin and don't toss a double-header."

"Let me repeat," said the Shadow, "the lesson that you learned in the Garden of the Infinitesimal Whatnots this morning—that eatables are the most important thing in the world."

"It needs no ghost come from the grave to tell us this," quoted Eric. " 'Quills on the fretful porcupine,' as Hamlet's old man said, and also horse feathers to you."

"Oh, doesn't it?" retorted Klado's shadow, "but if you piled up on Randwick Race-course all the books written by fancy-flying Galaxy riders and bunko steerers of the Milky Way who calmly assume that another million years of human progress will still see rags and slums, brothels and breadlines, white slavers, gangsters, grafters, food speculators, and inflated currencies, you'd have snow falling on top of the heap. Now, Eric, my lad, what deduction have you drawn from your view of that garden this morning?"

"Clever—dashed clever. The world *has* advanced a lot, hasn't it?"

"And you, Nayella?" asked Klado.

"I'll tell you what I think, old shadow-bag," said Naya. "This cheapjack joint of yours is no place for a nice girl."

"Why?"

"This morning I picked up in that junkshop of yours a real diamond of the first water. I know rocks when I handle 'em, and I know how to wear 'em, but that slab was big as a pumpkin and, according to all the rules of the game, worth at least ten million quid."

"If you could find anyone to give the price for it," said Klado.

"Yes, and I'll tell you another thing about this dump," said Naya. "There isn't a loafing blighter round here does a tap of work. They all eat free."

"Qualify it, Naya," said the Talking Shadow on the screen, "you mean food chasing work of the rough sort. You don't think that idlers planted that garden, do you?"

"That's one on me."

"You've lived in the South Seas, haven't you?" Klado went on.

"Too right. I was in Pago Pago, Samoa, and never saw a lazy native do a tap of work there."

"Why?"

"They dressed in leaf wraps, slept under thatch, and lived on bananas, coconuts and fish, which were free to everybody. Nobody worked and I had to polish my own damn shoes."

"You mean they wouldn't work for you, Naya. I've met Samoan natives who would trot all around that island with a suitcase for ten cents or an old shirt, but you couldn't hire them for a week's work for a million dollars. It isn't such a far cry from Samoa to here, Naya. You have brains, so try to adjust yourself to your new environment. It may be harder for you than for the others to do that. You've got ideas which you may not be able to change easily, and animals which cannot adapt themselves to changed conditions always perish."

"Can you tell us how this garden was produced?" asked Eric.

"As clearly as I can in a few words," said Klado. You know that all our scientific progress in the latter part of the nineteenth century and the early part of the twentieth was based on the discovery of the atom. The atom was—so far as then known—the smallest particle of matter existing in a pure form. All the ninety-two elements, from rarest radium to commonest oxygen, were composed of atoms. You couldn't break up an atom, but by linking atoms with other atoms you could get all sorts of compounds, from salt to smokeless powder. You've seen such synthetic products as camphor and rubber built up from their component atoms, and you know the story of the coal tar dyes, which replaced indigo and other natural ones.

"Then early in the twentieth century science took another step and went into the world of the sub-atom. Instead of

the final particle, the atom became a world in itself, full of protons, electrons, neutrons, deutrons and other particles. Pull a central nucleus, called a proton, out of an atom of mercury and there you have pure gold—the long-sought-for alchemist's trick."

"If it could be done," said Eric, "it would be at many times the cost of production of gold."

"Without knowing it, Eric," said Klado, "you're just telling me that work, not gold, is the stuff that produces things—gold itself included. We had reached the sub-atom even in your day, and wireless telegraphy was built up on the electrons and ions. In this day and age we've gone into the sub-sub-atom, and then again down below that."

"And found what, finally?"

"That the smallest particle of matter is also the smallest particle of mind. The infinitely small is the substance of the infinitely great. Mind and matter are inseparable, and our highest thoughts are by no means from chemical and physical influences."

"What then?" asked Eric.

"The people who planted that garden knew how to handle those ultimate particles. For your benefit I'll call them simply the infinitesimal what-nots. They trained them like monkeys in a circus, told them what to do, what shapes to assume, and where to pile up material. They could have made the rocks and cliffs do the same thing as the plants in that garden, but with the expenditure of a great deal more energy.

"As you know, Eric, the green leaf is the only real food-factory on earth. By means of photo-synthesis, to use a big word, it takes the radiant energy of the sun, sets it to work on the chemicals of air and soil, and, hey presto, there you have food. What follows is merely a storing, or concentration of that food. Your animals help to refine it, but even man, omnivore as he is, can live on plant food alone."

"So now you have the secret of the sub-sub-atomic garden and the Infinitesimal Whatnots that are simply taught to behave."

"Say, what do folks wear around here?" asked Naya.

"See for yourself. Your next stroll will be in the clothing, and the mechanical equipment departments of this cosmic emporium. Two hundred yards ahead, then turn to the left. No need for an escalator.

"Good-bye, folks, and in accordance with the traditions of the stage, our screen stars don't fade out: they just walk out."

As Klado said this, both professors stepped off the picture, walked on to the grass, and stood beside the screen for a moment waving their hands in farewell, then disappeared behind the screen.

Vera was rather sad and tearful, leaning on Eric as they walked along.

Following the course indicated, they found the clothing section in which Nayella showed much more interest than the others, feeling sheer silks and gorgeous life-like furs and filmy laces. Beyond that was a display of another kind—the Garden of Things that Flew. There they were growing from the stalks of gargantuan creepers and vines: aeroplanes, and aeroplane engines, electric motors, gliders and gyrocopters, buses that ran on land and flew in the air, dirigibles for special purposes, and weird mechanical contrivances of all kinds. But more interesting than all this to the twentieth century folk was a simple thing—the water-pipe plant with its tubes of uniform diameter. After all, it was not so unlike the bamboo stems—those tubes of giant grass—which are so commonly used in India and China for the same purpose.

They moved along, and there came to their ears with an increasing volume of sound the low thunder of a mighty waterfall.

Curiosity stirred within them, and they ran in the direction from which the noise came. A winding path led through a cleft in a cliff face, and it was this formation which had screened and thrown back in another direction the roar of a mighty waterfall. Now, as they emerged into the open, they found themselves on the edge of a sparkling pool, and the thunder of the Niagara-like flood which poured over a ledge five hundred feet above burst on them. Myriads of bubbles rose to the surface of that vast lake, and it shone with a sparkling fire and glowing incandescence beyond compare.

They stooped and drank eagerly. Whatever there was in that pure, sparkling fluid, it gave them a sense of elation which made them feel as if they were walking on air. Then, as they looked across the lake, a sound of distant music was wafted to them, and soon a powered boat was racing swiftly and silently towards them.

The boat contained a score of men and women, and all were dressed alike. They had the same one-piece sleeveless robe extending only to the knees, sandalled feet, and bare heads with short-cropped hair. All seemed of about the same age physically, but there was a slowness of motion and gravity of mien noticeable among some of them. These were the elders or the elderly young whose fitness endured to the end of their lives.

Their spokesman, a tall, slim fellow, stood up in the bow of the boat as it crunched on the pebbly beach and called out

in a musical voice:

"Chu vi parolas nian lingvon?"

"I guess what you're driving at, Chief. You want to know if we talk your language."

He looked perplexed for a moment, then turned to a young woman in the boat beside him:

"Kion li diras, Floreto?"—(What's he saying?)

And Floreto answered with a rippling laugh:

"Oh, I can understand all right. He's talking that old, old English of the world he lived in. It nearly drove me crazy learning it."

"Say, young lady," said Eric, "we've been wandering round this place and it's a bit of a conundrum to us. We're mighty glad to meet some real people—if you *are* real after what we saw on the screen—and hope you'll lead us somewhere where we'll feel at home. Now, just where are we?"

Floreto's smile vanished, and she eyed the group sympathetically.

"Tough on you, strangers," she answered. "Yes, mighty tough."

"Well, where are we?"

"YOU ARE ON THE PLANET VENUS, AND YOUR OLD MOTHER EARTH IS LIFELESS, DEAD AND GONE."

CHAPTER SIX.

WHEN FRIENDS AND PLANETS MEET.

Floreto's announcement left the terrestrial visitors dazed, stunned and bewildered.

There was tense silence for a moment, then the Venusian girl added, in a soft, silvery voice which cheered her guests even more than her words:

"I don't know whether to envy or to pity you. You are the most important people in the world just now and maybe the saddest, but cheer up. You're among friends. Just hop into the boat and we can talk while we're scooting across the lake."

They stepped into the boat, and it moved off swiftly and silently, skimming the calm waters of the lake like a swan.

Vera, sitting alongside Floreto (her full name was Floreto Mara), found her a very charming companion, though she was a little depressed by the staggering announcement which she had just heard her make. Vera had little hope now of seeing any more than the screen shadow of her father.

Floreto explained that on the other side of the lake was a city typical of all the other cities in Venusia—the whole planet being one country under one government.

"I promise you a lot of surprises," said Floreto, "and most of all a pleasant one."

Though it was about forty miles wide, they were across the lake in no time, and there was the city all right. Delago—the Lake City—Floreto called it, but there was no sign of any close-packed mass of ill-assorted and bizarre buildings like the cities they were used to.

They landed on a little wharf, and, with Floreto as their only guide, climbed into a gyrocopter taxi. With an almost imperceptible motion it took off, rose high, and in an instant landed on the flat roof of a tall building.

"Here we are," said their guide, and she led them down a flight of marble steps to the vast assembly hall below.

At the further end of the hall was a group of people. Vera uttered a cry and rushed towards them. She had seen her father standing there with his old colleague, Dr. Neale Anders, of Boggabri University. She flung her arms round her father's neck, hugging and kissing him.

"Are you really and truly alive, dad?"

"Don't I feel like it?"

"After that screen affair it's hard to believe that you're not just a spook ready to float away from me."

"Oh, that was merely a little modern television and mechanised telepathy. 'Elementary, my dear Watson, elementary,' as Sherlock Holmes would say. Dr. Anders, here, is alive and well, too."

"And delighted to see you all, too," said Anders, as Eric and Nayella joined the group. "Now be seated, all of you. You want to know what happened, when it happened, why it happened, and, of course, you want to know all that at once."

"If not sooner," said Eric. "Floreto here has told us that the old mudball has been bumped off and we're on another planet. A bit sudden waking up and finding the old world gone. We'll have to get used to it, but what a beastly nuisance having to learn all my maps over again. I was always so rotten on geography."

"The absence of boundary lines will help you," said Anders. "You'll be tickled pink to see a map of the world as a one-colour job. Tradition tells us that when the Brotherhood of Printers turned out their first world map as a uniform job, all the lithograph artists, stereo hands, compositors and

press men got roaring fou' as Tam o' Shanter and made a bonfire of all the multi-colour jobs on the planet, to the great loss of history. Quite a loss to the community—I don't think."

"What skittled the old mudball, dad?" asked Vera. "Did something bump into it?"

"Not at all. A matter of simple progression like the coming together of two stones falling to the ground. The date of the disaster was a simple matter of calculation even in your time."

"And, you will easily infer from that," said Anders, "that you have been asleep for a long time."

"A long time," said Vera. "Why, of course, it was to be 2500 years, wasn't it?"

"Very much longer," said Anders.

"Many thousands of years?"

"Much more," the Professor replied.

"Millions?" asked Vera incredulously.

"Yes, millions," said Anders. "In fact, it would be better not to try to express it in years at all, as such a tremendous lapse of time is really beyond your mental grasp. But you see the earth wasn't smashed up by any strange or unforeseen cause. It ran its course and perished in a way which scientists foresaw even in your time."

"Died of jolly old age?" said Eric.

"No; died violently, terribly. Committed suicide and perished in one vast and horrific cataclysm."

"I don't quite follow that," said Eric. "You say that it took millions of years. Death was hovering all that time. Then there was the final burst up."

"Yes," said Anders. "Like the progress of a cancer in the human body which moves along, slowly, quietly, painlessly, till it reaches the stage when the doom of the patient is obvious."

"When did the trouble start?"

"When the other planet was born."

"The other planet? But I understood you to say, Dr. Anders," said Eric, "that the earth's ruin came from within."

"It did, too. By the way, how many planets were there moving in the earth's orbit when you last saw it?"

"One, of course—the earth itself," said Eric.

"You're mistaken. There were two of them. The other one was called the moon."

"A mere satellite!" said Eric.

"No. Quite a respectable sized planet, or rather the other part of a twin planet. The most colossal thing of its kind and the greatest freak in the solar system. Compare

it with the tiny satellites of Mars—a planet about the size of the earth—and you'll see what I mean. In the early stages of the earth's development its top part flew off and sailed into space. Maybe the Pacific Ocean is the great scar it left behind. The moon reached its maximum distance, but could not escape entirely. In your time it was at that limit, rotating once a month on its axis, showing only one side to the earth and exerting a big pull which expressed itself in the form of tides, and in earthquakes too.

"Then it began to move more slowly, and as it did so it started to creep back to the parent earth, imperceptibly at first, but later in a way to completely upset the balance of life. With each lunar rotation the two doomed planets drew nearer, and the moon, being the smaller, was the first to show signs of the strain. There were terrific earthquakes, landslides, and the tumbling down of mountains. With the instruments then in use, it was possible to record for human ears the awful crashing, grinding and collapsing on the surface of that dead world. It was the signal of the doom of the human race—the approaching end."

"Sort of 'Get off the earth' sign," said Eric. "Did the folks hop it?"

"Not so fast, my friend," said Anders. "As I have said, the moon's approach was a slow and gruesome affair. Man was given plenty of what you call 'notice to quit.' Some of the race did manage to quit, but that's another story. The twin planets drew closer together, and the air was heated by the constant showers of meteors. These were the fragments of the cliffs and mountains that fell from the moon. At first the air was a shield, but later it was burned up by the friction of that terrible bombardment. Aerial raids by human hands like those of Coventry and Cologne were as nothing compared with this cosmic havoc. There were earthquakes in which whole cities disappeared, and tidal waves which engulfed others. Finally the moon burst asunder, and the earth was overwhelmed in that awful avalanche. It disintegrated into a swarm of asteroids and meteors like those of that shattered star's orbit between Mars and Jupiter."

"But the smash couldn't have been big enough to have burst up the solar system," said Eric, "or we wouldn't be here bright and smiling on Venus, this new mudball named after the honky-tonk jane."

"No, you would not. It caused a nasty flare-up, but not enough to wreck the neighbouring planets."

"But, Dr. Anders, you haven't told us how we three came here, and why we find you and dad here already."

"That's a long story, Vera, but to put it briefly. After you had been stowed away and we had watched the treatment long enough to be sure that it was a success, your father and I underwent a similar process. Generations of guardians came and went. The stipulated period of 2500 years had been greatly exceeded, but no one seemed to bother about us. It was so easy to put off the job of waking us up to another generation, and time passed on. First one generation would pass it on to another, with a few notes and some data, then the next would pass it on to the next, and so on. Years passed—ages, epochs, aeons. Time marched on like the old church chant 'in saecula saeculorum.' Then the problem of interplanetary flight was solved, people were moving out to Venus and they brought us along. Then at last they decided to wake us up in this bright new world. Lucky that Venus was in an earlier stage of evolution than the earth, and, as a comfort to the survivors of the Great Flop, it has no moon. It will no doubt last as long as the sun shines, and then what? Another migration, no doubt."

"There are other universes, of course," said Eric.

"No, there are not," said Anders impatiently. "Dashed careless fellows those astronomers calling a mere galaxy of stars a universe—'the expanding universe,' 'the finite universe,' and all that ballyhoo. The universe is the infinite—the All-in-All of All Things—and don't imagine that you can get outside it by doing the blackfellow's trick of calling it something else. A galaxy, like the one that centres round the Milky Way, is only a small part of the universe. Careless chaps those astronomers! Fancy lending an umbrella to a fellow who would misplace a galaxy."

"Not surprising in the least," said Eric. "In my time the school books had it that there were five continents, though there were really eight including South America, Antarctica and Greenland."

"Quite appropriate," remarked Klado. "By Jingo, I'm glad you mentioned that uninhabited island bigger than Australia which so few Australians knew anything about, though they squealed so loudly about the foreigners' ignorance of their unrivalled country. The best informed of them could not find that South Polar island—in its true insular form—on a flat wall map of the world. I mention it because when the old mudball warmed up with the moon's approach, Antarctica became by far the most important place on earth."

"I'd like to know how we got here," put in Vera. "Rather a long ride from the earth to here, and I didn't have a chance to shake hands with the taxi-driver."

"I learned that part of the story myself not so long ago, Miss Klado. We were all brought here on one of the interplanetary ships that were built for such voyages. There was a continuance of our sleep when we got here, but about six months ago your father and I were taken out of the cooler and restored to normal life. We then had an opportunity to find out a lot of things so that we in turn could put you wise to your new surroundings. They knew how we had broken Demarr in to his new world, and they used the same method with us and with you to-day. It was my own idea that you should be put in that strange garden and left to figure it out for yourselves when you woke up. That screen business is old stuff in Venusia. A citizen of this country is not merely photographed or finger-printed. They make a sort of shadowy duplicate of him—a mental and physical reflex—which lasts as long as he lives. He can control it from afar, make it walk and talk and do all sorts of tricks, but he has to be alert, watching and guiding it no matter how far away it travels. Also it takes a lot of apparatus controlled by a lot of people to make it hop around. That is one of the conditions of life on this planet. Without one's neighbours one can do so very very little—with them one can accomplish so much. It all makes for peace and good order."

"Have you reached that happy state where no one wants to hurt or injure his neighbours or bring sorrow to them?"

"Just about, just about," said the Professor. "I think that you may say that Venus shows an improvement on the old mudball in many ways—morally as well as economically."

"Now let us make ourselves at home," he added. "To-morrow we can get up early and see the whole planet."

"See the whole planet," Vera exclaimed. "How long will that take?"

"About five minutes. Delago is so like every other city that you can sit out on the roof of our flat and see the whole world in that time. Come along, folks. We'll soon get used to it. After all, the first billion years is always the worst."

CHAPTER SEVEN.

NAYELLA MEETS HER AFFINITY.

Delago was indeed unlike any city that the earth-folks had ever seen.

There was one enormously wide thoroughfare from which all the narrower streets and lanes branched off. The arterial highway ran up to the foot of a small hill, and crowning this was the immense Civic Centre Building. Housed in it were a host of clubs, schools, theatres, lecture rooms and laboratories, while the flat roof with its beautiful palm garden was used as a landing ground for gyroplanes. This building was 1000 feet high, with a special fire-fighting equipment of its own, and plenty of space around it—a solitary and dominant structure. All other buildings were limited to a height of 180 feet or fifteen twelve-foot storeys.

All the buildings were in blocks of uniform skyline, though this was not always up to the maximum allowed, and they were of symmetrical proportions and properly related to the neighbouring structures. Grass plots separated each building, which thus had light and air on all four sides.

There were no factory areas, production being carried out in the sub-atomic gardens like the one which had astonished the visitors. There were no slaughter-houses, laundries, or cookshops. Radio-broadcasting was a silent and individualised arrangement. You adjusted your own thought impulses to the proper wave-length: then you could take in an orchestral programme, a football match, or an historic recording of the final lunar crash, in a room full of people, who could carry on a conversation quite undisturbed and without even hearing a sound of it.

Outside of the main thoroughfare, on which streams of huge trucks and buses moved, traffic was mostly on foot or by gyrocopter plane. These gyrocopters, which hopped from roof to roof like sparrows, were the taxis of the community.

Every city on the globe was just like Delago, and the means of transport were in the hands of one central Community Group, which controlled every ship and vehicle on land, sea and in air. In spite of the mammoth ocean liners and the myriads of fliers, there were still railways—not the sprawling, many-branched affairs of single or double track, but direct arterial lines of six, eight, and ten tracks, which ran right round the planet, broken only by the sea barriers. Even the narrower arms of the sea were traversed by floating railways. Enormous electric trains, with tractive power well

distributed, whisked tremendous loads along at 100 miles an hour on straight runs of thousands of miles. To have shifted one such load over one of those runs would have required flocks of planes cluttering the skies for weeks and weeks.

The structure gauge of the planetary railways was twenty feet, with trucks sixteen feet wide and a four-foot clearance, but the earth folk did not observe what the track gauge was. Being Australians, they had heard and read so much bunk, boloney, hooey and blah about track gauges, and that Euclidean monstrosity the one-dimensional "railway gauge," that they did not even bother to notice whether the system used was monorail, overhead suspension with air propellers, or old style rails and sleepers.

Everything on Venus was standardised. If there had been hens there they would have laid eggs with a yoke of uniform shade of colour, identical in weight and in size exact to a millimetre. But there was no home-cooked poultry, and eggs, boiled, fried, poached or scrambled, grew on the same vine as the omelettes. With an eye to mass production, the hen-fruit were of ostrich size but of a delicate flavour.

In such a world one would have been amazed indeed if the language had not been rationalised and dialects were still in use. The language had in fact been standardised long before the migration from Mother Earth.

Vera had asked one day: "What is the origin of the Venusian language?" and received the puzzling answer: "There is no Venusian language." Pressing for an explanation, she was told that before the Venusians—who as she now knew were only emigrants from earth like herself—had mastered the art of interplanetary navigation, they had worked out a simple language which had replaced the confused babble of national lingoes by this scientific form of speech. Some of the national dialects had survived for a long time in odd places, but even these remnants had been liquidated long before the great migrations began.

Vera had seen her first specimens of this language in the sub-atomic garden on that memorable day when she had awakened from her long sleep, and she and the others had acquired enough of it to get along fairly well in the course of a few days. Within a few months they were speaking it fluently, having acquired it entirely by vocal lessons without ever having looked at a book. Even with the old confused and chaotic national languages, devoid as they were of rational rules, it was wonderful how readily a dweller in a strange land could pick up a new language from daily contact with those who always spoke it. With a scientific lan-

guage—simple and regular as it was—it was simply amazing what could be acquired in a few hours.

Instead of a mass of exceptions with a few rules thrown in at random—as in English—there were few rules and no exceptions. All in all it was a very simple and effective vehicle of speech, and as it was watched over by the Academy, its variation and improvement from time to time had been guided along proper lines, instead of being left to chance. So there were no disputes as to what was slang and what was not.

Most people lived in flats, but many never slept under a roof in their lives. These were the planetary and interplanetary hoboes. It was the crowning triumph of that brilliant historian, Professor Ostkap, to prove by profound research that the social phenomenon of the mechanised hobo had first made its appearance in the United States with the mass production of automobiles. With the mass production of aeroplanes following World War II., the Hobohemians had taken on wings, stealing chickens with 400 m.p.h. rattletrap Spitfires, and swooping on hen-roosts with dive-bombers.

The Venusian hoboes were by no means hungry drifters. Who *could* be hungry in a land like Venusia? They were simply people who refused to take life too seriously and would not settle down to hard study and scientific research. Because of the Transport Trust they could not beg, borrow or steal machines, but they could hire them on long term, pay-as-you-ride arrangements, and so they hopped from place to place, carrying a light silken tent for shelter, or sleeping under cover wherever they found it.

Nor was there any social stigma attached to these hoboes. In fact, in their own aimless way they often stumbled on to great scientific discoveries. These celestial blanket-stiffs and dossers of the galactial immensity would jump into some old jigger and saunter off to the orbit of the shattered earth, and listen to the music of the clashing meteors in the path of what was once a gay world. Perhaps they would make a record of that music or write fine poetry about it, and the Transport Trust would figure that by and large it had made a good bargain. Nor was there ever any jealousy or secrecy about these discoveries. Everyone knows how a vast amount of exploratory work was done by American whalers in the Antarctic regions, but the fruits were lost to humanity because Business guarded its secrets. And every Australian schoolboy knows how the Spaniards secreted the story of Commander Prado's voyage through the coral-strewn straits that separate Australia and New Guinea. Those straits should be re-named Amherst Straits, firstly in scorn of the Spaniards who buried the secret in the Manila archives, and secondly in honour of the general who, by storming Manila, made the facts known for the benefit of the world in general and of Captain Cook in particular.

It was on one of these leisurely jaunts into space that Nayella Gaba met adventure and picked up a soul-mate. It was an adventure of so grand a nature that it threatened to change the whole life of Venusia—and not for the better. Any change promoted by that hard and cynical young lady was not likely to benefit anyone but Naya.

The others of the earth-born party had settled down to a quiet and useful life, and cheerfully accepted their new surroundings. The professors Klado and Anders were busy all day assimilating the science of their new world and making experiments of their own. Eric and Vera were their laboratory assistants. They had married and taken a nice flat, which automatically blew its own dust up the chimney every twelve hours, and, as there were neither clothes to wash nor food to be cooked, they were having a grand time. Besides busying themselves with the work of the laboratory, they were finding out all that they could about Venusia and making occasional long-distance hops in those handy gyrocopters. On these trips they had hopped to the other side of the planet, to find that the sun shone there in the daytime also, and that land, air and water were much as they were back home in the days before "the moon, refulgent lamp of night" (see Pope's atrocious translation of Homer) had started a spiral and socked the old mudball for a row of goalposts.

Yes, Eric and Vera were happy as two cooing doves in a dovecote, but none of that complacency for the gay and charming Nayella. Her desire to roam was an unconscious—or less than conscious—expression of her general dissatisfaction with her new surroundings. It seemed that she just couldn't place herself. After a dust-up with the Transport Board, she found to her disgust that she could not buy outright a plane, an automobile, or even a push-bike. Those things were only hired out to people who were fully qualified to use them and not likely to injure others by their use. Nayella got over the difficulty by forming a group or club of four young and capable pilots. After she had qualified herself by a short course of training, this group hired a space ship which with gentle irony she named the "Hallelujah I'ma."

When asked to explain this strange title, she snorted:

"Well, I don't own a dashed thing, do I?"

When all was ready, Naya got her crew together and announced to her friends that she was about to be off on a

starry voyage. Her machine was parked on a big level lawn a few miles from the Morants' home, and Vera and Eric, with the two professors of Boggabri, had hopped along to see the start of the flight.

Floreto Mara, the young woman who had welcomed the three earth people to Venus and translated for them, was there too.

Floreto, small, dark-haired and vivacious, was a master of languages, and that meant making long and weary searches into the pages of history, yet no one could have been more charmingly alive and up-to-date. It was Floreto who understood Nayella best of all. She had summed up her complex nature more readily than any of her relatives could have done, and she noted with some concern that Naya's ill-concealed hostility to her new environment was causing a coolness.

"That girl isn't happy," said Floreto one day. "She just can't fit herself in."

"Why can't she?" asked Vera, opening her big, blue eyes wide in surprise. "Is there anything to stop her making herself comfortable here instead of chasing moonbeams?"

"Some people chase moonbeams all their lives, my darling Vera, and some others find it very convenient not to awaken them to realities."

"Naya is wide awake to realities; don't you worry about that."

"No, she's not, Vera. She's awake to the realities of long, long ago, and can't make the jump between them and now."

Floreto was pleased indeed to see Naya embarking for the voyage, and greeted her with smiles as she stood by the big machine. Nayella, tall, erect and strong, seemed beautiful in her own way, and Vera greeted her familiarly:

"Where to, Nay?"

"Nay me no neighs, sweet cherub. This Venusia of yours is a horse's neck."

"Well, what's wrong with it, pal?" Eric wanted to know.

"Everything. I want to be somewhere where I can BE somebody.

"Sorry we can't change the stars for you, dear," said Vera with mock sympathy. "Perhaps you'd like Mercury better. So bright and sunny, you know."

Nayella knew quite enough about Mercury—that burning stone, airless and cloudless, flying in the very mouth of Sol's fiery furnace.

She snorted:

"You telling me to go to hell, you blue-eyed doll."

"Oh, no, no, dear," protested Vera. "You're not going to hell, dear. You're taking it with you."

Nayella hopped in and slammed the door of the machine with all the strength of her hefty arm for a reply. Her four husky partners were already inside. All wore leather jackets and carried oxygen suits which they would don higher up. The big machine moved off, and the pilot set a course for Mars. They passed through the orbit of the wrecked twin planets, and still the machine purred on. It was a big sphere and carried inside it five smaller spheres, which were really smaller models of the machine itself. They were the lifeboats, one for each of the crew, which could be used in an emergency, a great door being made to allow their exit.

About half way between the wreck's orbit and Mars, a huge black machine several times larger than the Venusian loomed up out of space, and, swooping down from above, dropped into their track and began to steadily overtake them.

Naya, who was not versed in the niceties of interplanetary navigation, did not know that the machine had swooped down from above—a recognised fighting tactic—but the pilot knew and understood the significance of that hawk-like approach.

North and south were no more meaningless terms to the pilot of a space ship than they were to an ocean liner's captain. The machine was navigating in an imaginary sphere, the centre of which was the sun's centre, its equator the orbit of remotest Pluto, and its axis a line drawn through the sun's centre at right angles to the plane of that orbit. This arrangement gave a proper sense of direction and gave meaning to the terms "top" and "bottom" within the machine itself. It also permitted the use of lines of latitude and longitude.

When the Venusian pilot saw the manoeuvre of the strange sphere, he accelerated and at the same time sent out a message to his home base. To his amazement there was no reply. The rays had been jammed by enemy action and the sinister sphere was fast overhauling them.

No one on Venus had imagined that there could be such a thing as a hostile machine in space. It was an accepted theory among the Venusians that the earth-born race which had migrated to their planet was the only one which could handle such machines. It was further agreed that no other planet in the solar system could possibly be the home of intelligent life, but there was that ominous black ball whizzing along in their wake at a speed much higher than their best.

They were not left long in doubt as to the enemy's intentions. He drew nearer and nearer, ignoring all signals

and calls to disclose his identity or state his purpose. The Venusian ship was quite unarmed and helpless. It could neither fight nor run away and was soon overtaken. When within striking distance, the black foe loosed a rocket torpedo which crashed into the side of the Venusian, wounding all four men and momentarily stunning Naya. As the stricken machine dropped rapidly towards the nadir, Naya jumped into the lifeboat sphere, and, regardless of the lives of the others, steered through the great rent torn by the torpedo in the vessel's side and roared off into space. With the controls automatically set for the home base, she had no need to trouble about steering. The celestial "Iron Mike" would do that for her, but she was not quick enough to escape. The hostile sphere zoomed down, and when it drew alongside the lifeboat, pulled it in with an overpowering magnetic force. A great door opened in the side of the black hull, and the boat was drawn in and stowed inside. The little sphere was then opened up and the captive dragged out, proud and defiant in spite of her adversity.

She looked around and found that the inside of the enemy sphere was not unfamiliar. Its general appearance was much the same as that of the one that it had destroyed except for its fighting equipment. There were twelve men grouped around her, and they might have been of the earth or Venus. They were dressed in the polished leather suits of space sailors, and their heads and necks were bare. One of them bore a badge which evidently denoted some higher rank. What rather appealed to Naya was that he also wore a solitaire diamond in a gold ring on the third finger of his left hand. His arrogant demeanor also showed that he considered the crew to be his inferiors. He was slightly taller than any of them, but was really the least attractive of all. There was nothing ferocious about any of the crew, but their captain had a brutal face with piggy little eyes beneath overhanging eyebrows.

"What a charming captive," he said, speaking in the common tongue of the Venusians. "I am surprised and delighted," he added. His tone was soft and purring, but it did not deceive Naya.

"What's the racket, Big Shot?" she fired back at him. "First you torpedo us and bump off my crew. Then you are delighted to meet me. I am delighted too—I don't think."

"So you are Venusian," he replied in the same purring tone.

"Not on your life. I don't belong to that crummy joint and don't want to."

"Now I am more than delighted."

"At what?"

"To find that you, too, are an enemy of Venusia. At the same time I am mystified."

"What's the mystery?"

"Where do you belong to if you are not of the Venusians yet speak their language?"

"It's a long story, Captain, and you wouldn't believe it anyhow. Say, who do you think you are?"

"Not so fast, young lady. Your ship has been torpedoed and, as you say, I am the captain here."

"You win, Blackjack. My name is Nayella Gaba, and my late home the terrestrial and lunar twin planets, known in the vernacular as the Old Mudball, rotating in 365 and a quarter days in the third orbit from the central sun, and being the abode of homo non sapiens—destructive, batty and clean bughouse—till it went cuckoo like its tenants and started to chew itself up."

"The Earth! Why, we're all of earthly antecedents. But what is this you're saying? Do I understand that you are claiming to have lived on the Earth in some former existence before the cataclysm?"

"There, now. I knew you wouldn't believe me, Captain What's-your-name."

"Hipper, Captain Mark Hipper, Admiral of the Space Navy of His Imperial Majesty the Czar of Protonia."

"Well, how's the Imperial Ace-high and all the little trumps?"

"First you will clarify your story, Lady Nayella."

"You don't believe it? No! But I solemnly assure you it is all true, and it wouldn't matter a damn if it weren't. I'm in just as big a mess as if it were."

"Be at ease, Lady Nayella. Calm yourself and sit down. Pilot, steer direct to Protonia."

"Again I say, Lady Nayella, I am charmed and mystified," he went on.

"My," thought Naya, "isn't this a break? First I meet a guy who knows how to wear real rocks—not cattle pumpkins. Now I'm Lady Nayella to the Lord High Admiral, not 'Nay, old girl,' to the blanket-stiffs."

Her mental fog cleared. Her voice was smoother as she answered Hipper:

"Here is my story, Admiral. Years ago—a few billion years more or less won't matter, I suppose—I was living on the Earth, and the full Moon as I knew it was just a pleasant little golden ball. My Uncle Fergus Klado and another professor were making an experiment. They'd kept a man alive in a trance for twenty-five years, and they decided that they

could put someone to by-by for a hundred times that period. My cousin Vera, the blue-eyed doll, and her fiancé said they were going to have it on. I thought that it would be just simply wonderful to wake up twenty-five centuries ahead and see all the marvels that had happened, so I went into the freezer, too. Well, the next thing I knew, that baby doll and her boy friend and I all woke up in a garden, where bicycles, boiled eggs and motor buses all grew on trees. If anyone had told me that it was Sheol, Valhalla, or the Olympian godbox with all the dago divinities on the ran-tan, I'd have believed him."

"And what *did* they tell you?"

"They said that it was Venus. Not the honky-tonk girl, but the planet. The Earth had taken the Kayo in a catch-as-catch can with its lunar sparring partner—a feather-weight not given a sporting chance by the books—and some of the boys who'd refused to sink with the ship had carted the freezer to the next planet."

"And you, my charming one, doubt it?"

"Oh, no! I've seen too much with my own eyes to doubt anything. I'm sure if it isn't Venus it's some other crummy joint where everything is out of plumb and I don't fit."

"But why not, Lady Nayella?" Again that soft purr of the subtle Hipper.

"In a place like that everybody's nobody and nobody's everybody, but I want to be somebody and that's that."

Hipper nodded. "Better to reign in hell than serve in heaven," he quoted. "You remember the hero of that good old pagan story, 'Paradise Lost,' Nayella." Then he eyed her all over and purred:

"Beautiful lady, will you be mine?"

"Looks like I'll have to whether I like it or not. Oh, I don't mind being shelled, shattered, wrecked, sunk, salvaged and proposed to by the same gangster. I'm not a bit fussy."

"Your hostility to Venus interests me very much," he went on.

"Why?"

"Because my country is about to make war on Venusia, and I—with a big flourish—am Commander-in-Chief of the Protonian Navy."

CHAPTER EIGHT.

AN AMBUSH IN SPACE.

In a secluded spot overlooking the placid waters of the lake, and close to the Venusian city of Delago, stood the shrine of the Pundit Mahatma Oskhosh Obigosh.

To him were all the secrets of Heaven and Earth revealed, and to his shrine journeyed men of lore from the four compass points to hear the words of wisdom that flowed from his lips.

Observe him now in the Holy of Holies in pious meditation of the Mystery of the Seven Veils. His feet are on the mantel shelf, and a fat cigar wobbles in the corner of his mouth. From time to time he spits copiously into a great cuspidor—its brass is as a sounding cymbal.

Look again and you will see that the Holy of Holies is much like the executive office of a great corporation. There is the same big table, the same padded chairs, and the same soft carpet, but in the corner there is a small chemical laboratory, and strips of ribbon-like film pitted with strange marks and weird symbols like unto those of a Mayan calendar stone.

The pundit himself is just a pot-bellied, bald-headed scientist whose real name might be Smith, but in his ironical moods he adopts the other title. He holds several criss-crossed lengths of this strange film, and he thinks that it justifies his jocular adoption of the title by which he has been introduced to you, for not all the fakirs of India or the lamas of Tibet could unfold anything nearly so marvellous as the story imprinted on those narrow strips.

In tripped a charming young secretary with a typed document in her hand.

"What are you stewing on, Osky?" she asked.

"This, my little Rosebud," he answered, "is what I call 'The Mystery of the Seven Veils Unveiled,' and he held up the film.

"High-sounding title," suggested Rosebud, "and what do you call a mystery?"

"A mystery, sweet one, is something which some stupid stonehead can't understand and thinks no one else will ever be able to understand."

"And how do you fit the title to that queer spider's web?"

"It's like this," said the Mahatma, shifting his cigar to the other corner of his mouth. "In the dim ages past, when that old mudball that men called the planet Earth was flourishing and full of life, many people thought that the day of its

dissolution would be wrapped in mystery, or accompanied by appalling manifestations of supernatural power—as a certain solemn chant expressed it:

Dies irae, dies illa
Solvet saeclum in favilla.
Testat David cum Sibylla.

which is to say:

That Day of Wrath—that dreadful day
The Heavens and Earth shall pass away,
So David and the Damsel say.

"The Damsel—what damsel?" asked Rosebud.

"Sibylla, the pagan Roman goddess who specialised in prophecy. You might wonder why, centuries after Roman paganism was supposed to have been liquidated by triumphant Christianity, one of its deities held a distinguished place in the liturgy of a great Christian church. When that church was getting a toehold on the mass mentality of Rome, so to speak, the idea was to impress upon hoi polloi the credibility of David's prophecy because it agreed with that of the well-known Sibylla. In modern parlance, however, it might be taken to mean that David himself was just as punk a prophet as Sibylla."

"Then what really happened to the old mudball?" asked the Rosebud.

"Here," said the Pundit Mahatma Oskhosh Obigosh, to whom the innermost secrets of the Holy of Holies and the Mysteries of the Seven Veils stood revealed, "here is a sound film which tells the story of its decay and death. A perfectly natural process forecasted by unromantic mathematical calculations ages before the event. If the human race had sat down to meet its fate with invocations and Gregorian chants, you wouldn't be here to-day, sweet cherub."

"Tubum mira spargens sonum
Per sepulchra regionum,"

he went on. "*Very* freely translated, that means:

The frightful blast of Gabe's own trump
Shall set each ghost upon its rump.

He paused, and, with magnificent aim, smacked the cuspidor on the other side of the room a resounding "Ping!"

"That," he concluded, "is the Bunk!"

"Well, there are some people outside who would very much like to see that film," said Rosebud.

"Who? The Earth people?"

"Yes. Vera Klado, her husband, Eric Morant, and the two professors, Fergus Klado and Neale Anders."

"The very people for whom I prepared the story. Show them in."

They trooped in at the girl secretary's invitation and sat down.

Vera was the first to speak.

"We're all a bit worried about Naya," she said. "She floated off in the old rattletrap machine and her messages suddenly ceased. I'm afraid it's the end of Naya."

"Well, she hasn't to worry any more, has she?" asked the pundit.

"Oh, yes, I know. We're living in a scientific age, and I should take it philosophically and all that, but I'm afraid I was unkind to my cousin, and it hurts me that she should have suddenly disappeared like that."

She showed signs of bursting into tears.

"Now, don't you worry your pretty little head, my dear," said the pundit. "I have an idea that Naya is all right. In fact, we are the people who might have to do the worrying."

Vera changed her demeanor suddenly, sat up, and demanded to know why.

"With your intimate knowledge of your cousin," said the pundit, "you will agree with me that if there is any mischief to be found between here and Alpha Centauri, Naya is the right one to pick it up. Now, there is a theory current to-day, though it lacks complete proof, that somewhere out in the universe—not so far as that, but within the solar system, in fact—there are living beings who may be capable of mischief."

"I thought," said Professor Klado, "that Venusian science had thoroughly investigated all the planets within the solar system and declared them lifeless."

"Is there an exception then?" asked Eric.

"There is one of the satellites of that giant of the solar system, Jupiter, of which we would like to know a good deal more," said the pundit. "It is the largest of the many Jovian moons."

"Speaking from memory," said Professor Anders, promptly dipping into his notebook, as all good journalists do when they write that phrase, "Jupiter has nine moons, of which the largest is quite a considerable affair. It has a diameter of 3273 miles, which means that it exceeds the planet Mercury and approaches Mars in size."

"That is quite big enough to hold a considerable population," said Pundit Smith, "but we cannot say much about conditions on its surface because it is covered with dense clouds like those which once covered our own planet here. Unfortunately, those clouds contain some kind of colouring

matter which has the same effect as chlorophyll—the colouring matter of green plants—it is impervious to infra red rays."

"Hum," said Klado. "A sort of planetary ambush in which danger may lurk."

"Ambush, indeed," said Smith. "In fact, it seems that some of our interplanetary ships have been ambushed there."

"Indeed," said Klado. "That is startling news. Why haven't we heard it before?"

"For reasons of what you used to call 'national safety' in your time. It is a matter which concerns the whole life of our planet. We have quietly put ourselves on a war footing and have taken all precautions against any possibility of a surprise attack. Here is an outline of the course of events up to date. Having undertaken a systematic survey of our neighbouring planets and the parent sun, we went about it in a thoroughgoing manner, which meant postponing for a long time the investigation of minor bodies, including satellites. When we at last turned our attention to the complex Jovian system, we started to check up on its biggest satellite—a body considerably larger than your own moon, by the way, but much smaller in proportion to the colossal parent body. We were then disappointed to find that it was wrapped in an impenetrable fog, which, as I have said, contained some impervious colouring matter. So our next step had to be the sending out of a space ship to investigate. We received messages from that ship continuously, right up to the time when it was about to enter that blanket of fog. Then there was a sudden silence; we had heard the last of the ship. We sent out another and another with the same result. Then we suspected that the satellite was inhabited by hostile people sufficiently well-equipped to destroy approaching space ships so we took the precautions which I have already referred to. Our next step will be to find out whether we have an actual enemy to combat. Naya's disappearance may be a link in the solution of that problem."

"You consider it possible that her ship has been destroyed by enemy action?" asked Eric.

"I do," said Smith. "On the other hand it is possible that she has been captured, and was not altogether unwilling to be captured, by enemies of this planet world. Maybe she has a great destiny. At least she is the right type for it."

"My cousin was always a simple girl if she had plenty of faults," protested Vera. "What's this high-flown talk about destiny?"

"The destiny to inject into the monotonous life of this utterly, utterly perfect planet a spice of strife, struggle and

combat. To me it is sometimes very boring. How I envy some of the past generations of that old Earth of yours. The economic order in which they grew up was so utterly rotten that no one could come to adult years under it without being a grafter, a crook, an opportunist, or a racketeer. If he weren't one of those things, he could not have lived past infancy. What a world! What a world! *There* was a field of battle for you—a field as broad as the planet itself—strife, struggle, combat. Eventually, perhaps, improvement—if not that, at least annihilation. But this place—this Venusia of ours—is getting more like Heaven every day, and the only good thing that I know about Heaven is that a great Democrat named Satan once started an upheaval there and succeeded in creating a monopoly of heat, light and power which left the heelers of the ancient regime sitting in their bare pelts on the cold, golden slabs in the absolute zero of interstellar space with hardly a one-sided box of matches among them for their war-time stable tobacco. Just think of it. No one has committed a crime on Venusia for the past million years. Why? Because there's no motive for it."

"But surely, Mr. Smith," said Eric, "you have a religion here for people to dispute and quarrel over?"

"My young friend," said the pundit, "you have already observed, if you have looked around you, that there is no private property here."

"Yes, I know; but a religion?"

"And how, by all that is wonderful," replied the pundit, "could we possibly have a religion without private property for it to hold, cherish and protect?

'What's religion, laad?
Only a rose that blows,
But proputty, proputty sticks,
And proputty, proputty grows.'

"Isn't it a remarkable coincidence," the pundit went on, "that just as we have found something to break heads over—a hostile planet—we should rake up this queer bundle of complexities, Nayella Gaba, from the dim and distant past? A being quite unsuited to her present environment, she is bound to do her best to destroy it, or it will destroy her."

"You don't seem to worry much about her," said Vera hotly.

"Why should I?" answered the pundit. "She's only a bubble in the galactial froth of infinity."

"Rather inhuman, aren't you?" said Professor Klado.

"Am I? I'm a hundred per cent. Venusian, and where do you think you are, friend Fergus?"

"On a strange planet, of course," Klado replied, "but to me the most disappointing part of the adventure is that I find myself among frail human beings like myself with the same physical and psychological shortcomings. Has the human race, having evolved through aeons from the lowly protoplasm proved itself incapable of further evolution?"

"You would have thought," said Smith, "that after a lapse of millions, or shall I say billions—"

"I've lost count," said Klado, "but I'm not particular about a billion or two here and there."

"So," said the pundit, "is it distressing that after all this immense lapse of time you still find yourself among friends? And do you, like Naya, feel a bit cut up about it? You expected to find something much more nearly perfect than this bifurcated walking radish, didn't you?"

"Now I put it to you. Suppose, instead of finding yourselves among genial people like me and Rosebud and little Floreto Mara, who on the day you landed here pitied you with all the sentimentalism of ten million B.B.C. (Before the Big Crash), you woke up among super-intellectual frogs, gnats, lizards, wasps, newts, scorpions, ants, bats, tadpoles, tarantulas, or bunyips? Or worse still—suppose you had wakened up among eternally perfected beings, disembodied intellects consisting of wavicles, vibrations, or sub-atomic particles, combining a sufficiency of force and intelligence with an almost entire lack of material presence. Where would you have been then? I ask you." And the pundit Mahatma Oskhosh Obigosh drew himself up to his full height, blowing out a cloud of smoke magnificently.

"As a scientist," said Klado, "search me, but as a politician, will you put the question in writing and have it placed on the notice paper?"

"Ah, then, at least you recognise that we are now all at 'Home, Sweet Home' in spite of our rather lengthy journey in time and space."

"Oh, that sounds a lot nicer," said Vera, who seemed to be enjoying the conversation like a cat having a swim.

"And Naya will fulfil her mission to play the devil without any tears on our part," suggested Smith.

"As you say," said Vera, "but I can't help liking her with all her faults."

"Nor can I," said the pundit. "I think that she's the most entertaining character whom we've imported from the Great Beyond. The rest of you are a saintly lot of stinkpots. To have left her behind would have been like playing Hamlet without his racketeering step-father, or teaching Sunday School without good old Sate."

"Well, now that we're clear on that subject," said Professor Anders, "I would remind you of the purpose of this visit, Mr. Smith."

"Oh, yes, yes. You would like to see, and hear, the story of the destruction of your former home, the planet Earth. It is right here in this film. I'll soon fix it up for you."

With an alacrity which one would hardly have expected from his portliness, he fixed up a screen on the wall and prepared his apparatus for projection."

"Draw your chairs around this way," he said. "This is no mere talkie such as the Earth people were familiar with. There are certain generally accepted facts underlying its make-up. In the last analysis, all matter throughout the universe is made up of particles and wavicles of matter and energy. They never perish, but simply change places, so that if you happen to know the order in which those wavicles were given off in the action of any past event, and know their exact present location (which may be anywhere in the infinite universe, of course), you may arrange them in their proper order and re-enact, with perfect accuracy, any past event."

"Sez you, pundit Mahatma," observed Klado.

"Sez me, Professor Klado," replied the pundit.

"Now," continued the pundit, "we have here a perfect record, not only of form and sound, but of thought and feeling—a record, too, of all the emotions, ambitions, hopes, fears and anxieties of the people shown. Sitting here you will feel yourselves transported right back into that old world, watching its decay and the approach of its doom. And you will feel yourselves actually part of that frenzied human throng in the days when the end was near. You will share their hopes and fears, read their very thoughts, and live among them as you are living here now. Watch, and when you feel like putting a question to me, don't be afraid to ask it."

Back across time and space, back through millions of years, the space voyagers rode on the wings of the wavicle machine, and, with a certain feeling of home-sickness, which they never could have endured if Venusia itself had not been so home-like, they found themselves back on the twin planet that men superficially styled the Earth, without knowing—in most instances—that there was a lot more to it than the mere Earth itself.

CHAPTER NINE.

HOW THE OLD EARTH DIED.

It was a wonderful and happy old world that the voyagers gazed upon. Such a world as astounded Digger Demarr when he awoke to gaze on it.

No more of destruction and strife, but everywhere constructive effort, energy and achievement. Gigantic engineering achievements which taxed to the utmost all the qualities of skill, courage and daring which the human race possessed.

The conquest of deserts, the diversion of seas, the girdling of the globe with endless aerodromes, and the creation of artificial islands which defied the stormiest of seas. They saw the Sahara and the Australian deserts turned into smiling and pleasant lands, and a vast lake at the head-waters of the Amazon irrigating the Peruvian desert through a huge tunnel in the Andes. To achieve some of these things thousands of men had laid down their lives courageously, fearlessly, ungrudgingly—giving everything that the race might live.

To this busy, hustling, adventurous and very happy world came a message of doom. Not in supernatural revelations, not in flaming meteors or portents in the sky. It came in the carefully worked out mathematical calculations of distinguished astronomers, and the message was simply this: the twin parts of the planet will come together again one day, and their union will be a wedding of devastation—a cataclysm.

Throughout the ages men had looked upon the Moon as a friendly thing shining gloriously with its reflected light. Personified with a feminine title, its beauty was the subject of poetical praise long before Homer.

The actual story of this great bare stone poised over the Earth was more romantic in its own way than old Homer himself could have imagined. In the days when the Earth was a hot fluid mass, its rapid rotation broke the newly formed crust, the planet became pear-like in shape, and a part separating from the main body gradually moved away. Behind it it left a great scar which became the Pacific Ocean. If the Earth became the abode of life through a series of freaks, the birth of the Moon was one of the greatest freaks of all. In the whole solar system there is nothing like it—a satellite with a quarter of the parent body's diameter. The earth is, in fact, a dual system—a living thing eternally chained to a corpse.

Gradually the smaller part reached the limit of its progression from the greater. For ages it ran its course in its ultimate orbit. Then one fatal day—the Dies Irae of which Sibylla never dreamed and to which David never testified—it began to move in a spiral, gradually returning to the parent Earth.

The confirmation of the first calculation that the Moon had moved a tiny fraction closer caused no stir. The human race was happy, busy, hopeful. Then gradually the truth soaked in to the mass mind that man's earthly home was doomed, that it was well on its way to the final crack-up, and would disappear long before the solar system had run its course. Appalling as the crash would be when the two parts of the original planet came together, there was no reason to believe that it would tear the solar system asunder. The sun would still shine, the other planets would still revolve in their orbits. There was little reason to doubt that the sunshine would still pour down on the shattered, scattered remnants of the dead world. What then?

GET OFF THE EARTH!

The old taunt assumed a new and challenging meaning.

Yes—get off the Earth! But when, how, and where?

Here was a new problem for "homo sapiens"—homo "wake-up" who, fortunately, had given up many centuries before the practice of trying to make the Earth tenantless by colossal wars.

Seated in Smith's studio, and following the story with keen interest, the Earth folk found themselves gazing down on a scene in Times Square, New York. On a colossal sign the whole scheme of the Moon's changing path and earthward approach had been worked out beautifully in coloured lights and diagrams. A crowd was milling to and fro discussing it and arguing about the latest mathematical calculations as eagerly as any crowd ever discussed the form, weights and riders of the favourites at Randwick Racecourse. There could be no question of the awakening of the mass mind to the gravity of the subject. The people who jostled for a glance at that huge map were as conscious of their position as the occupants of a ship going through a danger zone haunted by enemy submarines and bombers.

"What are they getting so excited about?" asked Vera. "They've got thousands and thousands of years in front of them before the bump, haven't they?"

"Yeah," said Smith, "and you've got millions of years behind you, but you remember the last time you tore your stocking on Earth as if it were yesterday. These folks are just race conscious, that's all."

"In truth, they were neither panicky nor jocular, but simply treating the matter as a serious problem. No matter how distant the catastrophe, their children would have to face it. But, fortunately, there was ample time in which to tackle a solution of the problem."

"We all know now the answer to the question, 'Where do we go from here?'" said Professor Anders, "but how long did it take them to determine that Venus was to be man's future abode?"

"As a matter of fact," replied Smith, "the probabilities of this planet being the home of primitive life were being discussed long before the problem of interplanetary migration became a question of practical politics. In the early stages of its planetary evolution, Venus was covered with hot, steamy clouds which hid its surface from the first investigators. Beneath those dense clouds, as we now know, the primitive forms of life were flourishing in much the same weird and monstrous shapes as they had assumed on earth.

"In the steamy jungles and fetid swamps colossal vegetable growths were taking shape, colossal reptiles were wallowing or tearing, clawing, rending each other to doom in frightful pools of funereal pitch which engulfed victor and victim.

'Dragons of the prime
That tare each other in their slime.'

"Yes, they were all there on the neighbouring planet while the Earth was the abode of triumphant man. The idea that Mars was inhabited had long been abandoned. It had been the subject of much discussion, speculation and romance, but Mars was old and senile while the earth's other neighbour—symbolically on the sunny side of space—was young, fresh and full of plenteous primeval life."

"I could hardly imagine man as a contemporary of the plesiosaurus, icthyosaurus, and that flying dragon the pterodactyl finding life congenial, finding life very congenial," said Anders. "He would face frightful climatic conditions and find the ground quaky underfoot. No doubt with artillery, aeroplanes and armored machines he would soon clean up the colossal saurians, slow and cumbrous as they were, but how could he tame those torrid jungles and swamps?"

"From which you may reasonably infer," said Smith, "that long ages elapsed between the time when the fatal recoil of the moon began and the mass exodus. In the interval conditions on Venus changed very much for the better from man's point of view. By the time the first men arrived its great steam cloud envelope had vanished and its surface had changed to a smiling and pleasant place with many landscapes such as

you saw yourselves when you awoke in that sub-atomic garden."

"Yes," said Eric, "that was a pleasant land, indeed, with enough of that primeval envelope left to fill the sky with a glory of ever-changing shape and colour. I could never have dreamed that there could be anything so stimulating and beautiful."

"So the first migrants thought," said the pundit. "You have read, no doubt how Admiral Byrd's men returning from their long sojourn on the South Polar ice-cap wept for joy at the sight of green trees growing and tossing their branches to the breeze as their ship steamed up Dunedin Harbour. Can you imagine the feelings of the first earth men to behold that landscape which impressed you so forcibly? Men who knew that a stricken world lay behind them, and that only here on another planet were the really great achievements of the human race about to begin!

"But I anticipate. Let us get back to the doomed earth. We move to another great capital—London. Here is a conference of scientific men from all over the globe. They are discussing this problem which, in the interval that has elapsed, has become a very vital one—the problem of whether the race can survive the wreck of its planetary home. It is no longer a question of high adventure, conquest, the thrill of exploration and discovery, it is a grimly practical proposition.

"Here, says the chairman, is why we must get out. Here, according to all the probabilities is where we must go to. Now for the real problem—how do we get there?

"The world's most interesting conference begins. This is no threat from some power-drunk despot with accumulated engines of war. The Universe itself has delivered its ultimatum to the whole human race."

CHAPTER TEN.

THE CONQUEST OF SPACE.

"It was that London conference which accepted Nature's challenge and laid down certain plans to meet it," said Smith. "Man was to remain master of the world though the world perished.

"We pass now from the realm of scientific discussion to that of practical effort. There is another lapse of time, and now gaze at the scene which is presented before you."

Before their eyes a great open field spread out. It was thronged with spectators and the centre of their interest was a machine designed to set a great rocket in flight. In the vacuum of interplanetary space—assuming that it was a vacuum—no propeller could grip, but a rocket-driven projectile would derive its impetus from explosions which by creating expanding gases would push it along regardless of the absence of air resistance. In a sense it produced its own atmosphere and kept on producing it as long as the powder lasted. And in the absence of external friction enormous speed could be achieved.

There were no passengers in the rocket, the object being merely to hit the Moon. An explosion on impact would create a vast smoke cloud which would be visible even through a field glass. It was to be a test of certain calculations and the first actual flight in space. If a projectile could be aimed accurately enough to hit the Moon, only 240,000 miles away, one might be aimed to hit a more distant planet. Then there would remain the problem of how to land it there intact and how to pack people into it and land them alive. Distance might be increased and aim and control improved by calculation, experiment and observation. It had been a long way from Bleriot's flight across the Channel to the London-Melbourne centenary air race, and the Moon rocket was the Channel flight.

To the crowd on the field no target was visible. The rocket was not aimed at the Moon, it was aimed at the spot where it would be when the rocket got there. Off it went with a mighty roar. There was another roar of cheering from the crowd and away sailed Voyager Number One. One after another its big nest of rockets took up the job of propulsion, when one burned out another lit up and the engineless engine sailed merrily on.

Hours later when the Moon was shining full and clear in a cloudless sky the watchers saw through every kind of optical aid from giant telescopes to theatre binoculars a pillar of dense smoke rise up and spread out over its airless surface. The aim was true and the rocket had delivered its message.

A small step in the stellar journey—but still a step.

It has been said that human life on this planet marches along as if balanced on a knife edge and everyone takes it for granted that it will keep on marching. But let that balance be upset in the slightest and there is disaster. No tremendous drop of temperature was needed to cover almost the whole planet in a glacial shroud during the Great Ice Age. A slight disturbance of the rotating revolving Earth, too much heat or cold, too great an atmospheric pressure, lack of air or water or the gases that make them—any of these things could annihilate life. Ages before the great inventors made their spectacular achievements in electricity, chemistry and engineering, some unknown savages learned the use of fire. Blow out a match and you have darkness. Take away from Man the use of fire for light, heat and power and all his civilisation would disappear just like that. That discovery of unknown savages has not been equalled in importance by all the Edisons and Marconis who ever lived. And without the invention of the unknown savage who made a wheel out of a log end, no machine would function.

So when it came to space travelling, man had to face the problem of transporting a living machine delicately balanced and adjusted to a certain environment across a vast field where that environment did not exist. Could he carry with him a replica of his actual environment on a journey which would occupy nearly two years? That was how the problem stated itself. But there was another aspect of the matter, and it was the distinguished Zulu scientist Umchah who presented it in a clear light.

"If we propose to steer a vehicle to Venus," he said, "let us observe the behavior in space of some of the tiny planets or planetoids, some of which are no larger than our proposed space-ship."

Turning a stellar super-camera on to one of the planetoids named Ergo, which had come dangerously close to the earth he was amazed to find that it was inhabited by tiny beings which had definitely passed out of the animal stage inasmuch as they had learned the use of fire for lighting and cooking, fashioned implements and built houses.

In announcing this discovery Umchah said:

"If we wish to travel across space in a small ship let us copy the Ergonians and evolve a race of beings small enough to live and work in it comfortably during its starry flight. Let us raise them up to the highest intellectual level and endow them with all the latest equipment of science. Then let theirs be the task of ferrying this world's culture to another planet and colonising it, so that systematised knowledge may begin there where we have left off, and not with the microscopic brain power of the dragons that now wallow in Venusian slime. If we, ourselves, have evolved from the protoplasm of the ocean depths, can we not evolve some shape more suitable for this grand task of conquering stellar space? Is it incredible that ants and bees could not have risen to Man's level if Man had not arrived first and blocked the path to their higher evolution—or to the evolution of any other possible competitor for that matter? Are we to believe that

in Man's shape alone is it possible for reason and constructive intelligence to walk the Earth? To me the Achievement is the thing, and I care not whether Venusia be colonised by high-browed supermen or by warthogs, dingbats or wobbegong sharks if the highest forms of science and culture be transplanted there."

"I should imagine," said Klado as they gazed down on the panorama and heard Umchah himself speaking, "that he was not an Aryan or a Nordic. Imagine how popular he would have been among the Nazi super race theorists."

"Yes," said Anders dryly, "apparently one of the best methods of producing a super race is to bump off the flower of that race every generation or so."

They looked once more at the powerful figure on the rostrum and heard Umchah's deep bass voice booming out again:

"If the law of gravity becomes a minus quantity on a space ship, if, as we are led to believe, liquids like tea, milk and soup will float through the air in round balls without any containers, and passengers may walk on space, then it seems to me that a race of intelligent flies or spiders able to walk upside down from the ceiling on gummy feet would be much more capable than clumsy two-legged vertebrates of performing such voyages. You will remember that we still have ages before us in which to evolve a specialised race and to me it is not a question of preserving the supremacy of any species but of preserving, perpetuating and adding to the store of human knowledge.

"If we perish with the earth all our achievements are in vain:

'And all my realm reels back into the beast and is no more.'

"As the poet expresses it. But if enough of us reach Venus to continue our progress who can set limits to the heights which we may attain? I say that we may eventually reach that stage when instead of merely voyaging to new planets we may be able to make planets of our own, and juggle the mechanism of the whole shining universe around to please ourselves. Who says that there are bounds to the possibilities of progress—that there are things we cannot know. How does he know we can't know, and how does he know that the world's greatest minds will agree with him a million years hence?"

"You have just heard what the great Umchah taught," observed Pundit Smith, "and experiments were made along the lines that he suggested, but the idea of raising and training a race of beings specialised for the space navigation job was abandoned."

"It seems that we are to be congratulated on that," said Eric. "I like our present company much better."

"Between the two schools of artificial environment and specialised beings," continued Smith, "there was eventually a compromise, or rather another path was found which opened a way out of all the difficulties. The answer was suspended animation. You will remember that during World War Number Two dive-bombers were used in which the pilot diving at high speed went into a mental blackout and the machine righted itself. It was along those lines that a solution was found.

"Then Nature itself took a hand in the game by dissolving the cloud screen which hung over the planet and revealing to the delighted gaze of the astronomers a pleasant land. You remember, of course, that we are dealing with a long period of time."

"During which, it seems," said Klado, "the Moon was gradually coming closer and closer to the Earth, and bringing home more clearly the menace of approaching doom."

"True, but I shall leave that part of the story till later. When you come to look upon the havoc of the final cataclysm you can comfort yourself with the knowledge of what was achieved.

"Powerful telescopes and super-cameras scoured the surface of Venus; photos were taken from the stratosphere. There was now no doubt about it. Venusia was Man's future home. The next step was to hit the planet with a tracer rocket as had been done with the Moon. When that had been achieved there was a checking up of calculations, then a new kind of projectile was tried.

"The great problem hitherto had been to overcome landing impact. That problem did not present itself with an explosive shell the function of which was merely to register a hit but it was a different matter to safely land a sphere full of delicate instruments."

"Instruments?" said Klado.

"Yes," said Smith, "I forgot to mention that the first voyagers to Venus were scientific machines with something close to intelligence based on chemical changes. When they arrived safely they took stock of their surroundings in an almost human fashion and talked back to the home base giving all kinds of information."

"To receive such messages," said Anders, "you must have found means of overcoming the ionic layer which prevents

radio messages from being sent beyond the Earth's atmosphere."

"Yes, we found that there were rays which penetrated even that."

"And how was the problem of impact overcome?" asked Klado.

"By a happy discovery which reduced the whole problem to very simple terms. It is well known that the sun— that vast central storehouse sends out tremendous energy of which only a little is collected, in the form of sunlight, on the earth, the rest being dissipated in space. We found a means of collecting some of that wasted energy and making it guide our great spheres across space by remote control. You have seen how an aeroplane can be guided by distant radio direction. The principle was the same inasmuch as we were able to steer our spheres from starting point to landing point but it differed in this way that the sphere did not carry its own power. The source of that was the sun's energy concentrated in vast powerhouses on Earth, and directed along a beam to the space ship keeping it in a straight path to its destination."

"But suppose," said Anders, "it missed the planet through some miscalculation?"

"That would not matter unless the error was colossal. The sphere could easily be turned into the right path and, when it approached the Venusian atmosphere, slowed down to a gentle landing."

"Without the occupants feeling anything?" asked Anders.

"Certainly the occupants felt nothing, as I shall explain to you presently," said the pundit with a smile.

"But the shape of the space-ships," said Anders. "I understood you to say that they were spherical. Then they were not stream-lined."

"Not so far as atmospheric resistance was concerned. But what is the use of streamlining in the emptiness of space? Our space-ships were shaped like the planets themselves, quite logically, I think."

"How long did the voyage to Venus take," asked Klado.

"About a year and a half," said Smith. "The spheres were made to carry many passengers as one of your big ocean liners, a little over 5000 on each trip."

"How could such numbers be accommodated? It seems amazing."

"That," said Smith, "was indeed the most amazing part of it all. The passengers were put into a state of suspended animation, or trance. They travelled like fish frozen in a block of ice, coming to life at the end of the journey. On arrival the sphere automatically opened and the voyagers

awoke in the atmosphere of Venus just as you awoke in that garden."

"What a pity," said Vera, "that they couldn't steer the jolly old 'buses. They must have missed a lot of fun. I wouldn't give twopence for an aeroplane I couldn't steer myself."

"Be your age, girl," said the pundit. "In these enlightened days people don't talk about steering aeroplanes, they want to steer the planets themselves around the sky. If the sun goes cold push Venus over to the orbit of Alpha Centauri— that's the modern idea but, of course, that's not a one-man taxi job."

But the young lady was not to be repressed.

"Did everybody get off in time," she wanted to know, "or did the captain go down with the ship?"

"It was never intended to rescue the whole human race or anything like it," the pundit answered. "You have often heard of the heroic few who died to save the many. The process was reversed this time. The many were sacrificed in order that the few might continue to live."

"Then, how many people managed to cross space and colonise Venus?" Eric asked.

"Ten million in all and quite enough, too. They brought along with them all of man's greatest achievements in science, art, literature and so on. Everything in fact necessary to set up civilisation on this planet where it had left off on earth. The effect was to short-circuit the process of evolution on this new world by many millions of years. We started from the farthest possible limits of human achievement and not from the scratch mark of the horrific wallowing reptiles of the prime."

"Now," he added, "shall we glance at some of the scenes which were enacted on earth as the inevitable end approached?"

They all agreed and the pundit threw another picture on the screen.

CHAPTER ELEVEN

CATACLYSM.

Looking into the screen of the Wavicle Machine the group of four Earth folks seated in the office of the Venusian scientist seemed to see a great orb floating in space.

Presently it approached them, or rather they felt that they were approaching it. They felt themselves falling, falling, falling through infinite space. Presently, with a slight shock they felt themselves land and looked out on a green lawn. They walked about and their surroundings seemed familiar. They sensed vaguely that they were back on earth, but not the old, happy earth of their own time. In that distant time the pulse of life, hope and energy beat strongly throughout the whole land. It had been impossible in those far-off days to escape that buoyant feeling, a feeling of the presence of an all-pervading activity even in the remotest and loneliest spots on the globe. It could hardly be said, in fact, that there was a lonely spot in that busy and adventurous world. The evidences of man's colossal energy and constructive efforts were so universal that no place escaped them. Even in the polar seas the ice would be suddenly rent asunder from below as some giant submarine rose to the surface for a "breather." Regular lines were running under the polar cap from Behring Straits to Norway while overhead huge 'planes soared through the heavens.

But now the visitors sensed at once that things were different. The senile decay of the whole earthly world seemed to produce a penetrating psychological effect—the effect on an imaginative mind of being in a cemetery at night. With a little shiver they looked up at the sky and what they saw struck a cold chill of horror into their very bones. Overhead hung the moon, frightfully and menacingly enlarged. No longer the golden orb with its soft mellow light, but a thing of menace, shining with a baleful glare which blazoned out dire menace to the world below.

As they looked it seemed that the weird and awesome thing gave a shudder. A shiver ran through that cold and lifeless body, puffs of smoke and clouds of dust rose out of its deep sun-scorched valleys and from the bottom of its dried-up seas. The whole sphere was covered with a haze, and just as suddenly as the visitors had descended to earth they sat up in their chairs in the Venusian's office to find themselves gazing not at the earth but at the surface of the moon.

And what an appalling sight they beheld! The lunar orb with only a fraction of the earth's weight and with a density no greater than that of the earth's surface rocks had approached close enough to feel the tremendous pull of the parent planet. The result was a terrific quake which shattered the lunar surface and sent masses of rock hurtling miles high. Into black and yawning chasms moved whole mountains. Whole ranges with towering peaks which would have stood out in Andes or Himalayas slid into the beds of dried-up seas, vast fissures opened up and the tremor which ran through the whole mass was like the dying agony of a stricken world.

The next day in every corner of the earth the main topic of conversation was the approaching end of the planet. In every observatory from which the satellite had been visible that night telescopes and cameras had been turned on to its surface. The quake had been anticipated and there was no disputing its meaning.

Time rolled on, as the human race, like passengers imprisoned in the steel walls of a doomed ship felt the end approaching and busied themselves with what became the one rational motive of all human effort—the desire to preserve that civilisation which had been built up so laboriously through aeons and aeons of effort and struggle, and sacrifice. In the whole history of the race since ape-like creatures had learned to chip stone into crude implements there had been nothing finer than the co-operative spirit with which the whole of society bent itself to the task of moving the best elements of that society to another home across the sky.

And, as that little group of earth-folk who had lived so long before the event, and were now living after it were made to realise through the complex recordings of the Wavicle Machine, the feeling of common humanity which pervaded the world was splendid as the patience and courage with which the great problem was being tackled.

In other periods of great crisis nerves had frayed and tempers shortened, but now, as the grim truth sank into the general consciousness, there was cheerfulness, understanding of the weakness of others, and a general sense of membership of one big human family. It is an old saying that there are many worse things than death and these people were not in the least concerned about the possible shortening of their own individual lives. They were not concerned about living but about keeping civilisation alive. And there was no dispute about the nature of the common enemy. This trouble could not be blamed on any section—it threatened everyone alike. People became kindlier, more patient and

more tolerant and helpful towards each other. The doubtful blessing of poverty, admired by philosophers who had never endured it, had vanished long before and there was no scope for patronising of one's neighbours even if people had been inclined to do so. So while the gaiety had gone out of life courage and good fellowship took its place.

It was strange, thought Eric and the two men of science, that the generation which saw the dead moon shudder should feel and act as if *their* doom were implied. Surely they knew that they would live out their lives before the end. But to Vera it did not seem strange at all. She alone fully appreciated the attitude of the people and did not even imagine that there was anything strange about it. She would have been surprised herself had she known that the others found it hard to understand.

In the great cycle of time as it unfolded itself before them it seemed but a few moments before a living generation was feeling the convulsive death pangs of its planet home. The Moon having only one-eightieth of the earth's weight, though it has a quarter of its diameter, naturally felt the tension of the great "pull" long before it affected the larger body, but as it came closer its own pull was sufficient to become disruptive. It had always caused tides and earth tremors but now it began to convulse the earth's surface on a colossal scale. There are two well-known earthquake belts; the first surrounding the entire Pacific Ocean in a great ring, and the second running from Portugal through Southern Europe and the Mediterranean to Asia Minor, Persia, India, the East Indies and finally meeting the other fracture zone at the eastern tip of that hand-shaped island, New Guinea. That finger tip might have been styled Main Street corner for the world's earthquake traffic.

Now, as the moon approached the great earthquake ring from Chili to Alaska, from Kamchatka to New Zealand, became convulsed with upheavals that had dwarfed everything that had gone before. In every part of that great ocean which filled the gash left by the satellite's departure terrific tidal waves arose and rolling on like moving mountain chains crashed on beaches and overwhelmed cities.

It was not merely coastal towns which were overwhelmed with all their wharves, docks and shipping, the rocking ocean rushed on over plains and low hills to be stayed only at the foot of mountains or table-lands. It seemed that Ocean was celebrating the home-coming of its daughter. In the other fracture line islands sank and mountains were split asunder.

Then came the luminous skies when the Moon cracking under the increasing stress began to shower down rocks and fragments of shattered mountains. As they dashed into the Earth's atmosphere at high speed they were mostly burned up in the same way as other meteorites. But the stream was too great and constant, the lunar fragments too large to be stopped entirely by that aerial shield. Many struck the Earth —great masses of stone and metal which occasionally annihilated a big city or burned up a vast stretch of forest —the others kept up the continuous torchlight in the skies.

The constant meteor showers had a disastrous effect apart from the terrifying bombardment from which refuge was impossible. The endless stream pouring into the atmosphere, and generating heat by the constant friction which kept the skies aglow by day and night, soon heated up air, land and water alike. The seas became warmer, icebergs disappeared entirely, and soon the eternal ice of the polar regions began to give way. The effect was bad enough when the sea ice of the Arctic Ocean faded away and the ice caps of Greenland and Labrador swelled the volume of the Seven Seas, but when the immense cap of that silent continent, Antarctica began to melt the effect was cataclysmic. For ages tall cliffs of ice had ringed around its shores in one vast barrier and now as the seas warmed that barrier began to sink into the sea, and the immense sheets of ice which lay deep over the whole continent poured down behind it in floods which made Niagara and the Amazon seem like trickles.

Round the whole globe, swelling the giant tides already raised by that cosmic grapple, rushed a wall of water which added to the devastation that the ocean had already spread far inland. Populous lands vanished, plateaus and mountains became islands. Mankind saving what it could from the wreck, sought refuge on higher ground.

Then amid all the destruction came a compensation of the balance of loss and disaster which for awhile gave the race new life and hope. As the melting ice disappeared from the great land masses which they had covered for epochs those lands saw the dawn of a new life. Spring awoke in the great South Polar Continent and a green mantle spread where impenetrable ice had lain. Where blizzards had howled and blinding snows driven unceasingly palm trees waved in the warm breeze. Antarctica became a warm and pleasant land, and if the sun refused to shine on it for half the year there was light enough in the skies with those planetary funereal fires, and for the rest man had long ago mastered the art of fluorescent lighting sufficiently to make his own daylight wherever he wanted it. Fortunately Antarctica was

for a long time almost free from bombardment, so it was not surprising that that vast south polar plateau soon became the most important place on earth. Hither, by means of huge carrier planes dashing through the rain of death from the skies were brought all the means and equipment of the most advanced culture. It was a queer turn of events which made this most isolated of all the continents—that greatest of all deserts when the world was in its prime—the most populous and busiest place on earth, but before the end came it had more people than all the other continents together. Its resources were immense and now easily worked, and it was found to contain greater stores of certain raw materials than had been found anywhere else.

It was from a spot adjacent to the South Pole where Amundsen and Scott had planted their rival flags that the first passenger-laden ray-controlled sphere was safely steered to Venusia. It was also the last place from which such passenger flights were made for it soon became isolated from the rest of the world—man's last refuge. As the warming-up process proceeded, the tropics became more tropical and eventually the torrid zone became impassable even for aircraft. Great jungles went up in sheets of flame, vegetation vanished, huge lakes and rivers were sucked up, the barren land became as a hot stone and the seas as boiling slime festering with the bodies of millions of fish.

Then came the final stage. The last of the voyagers had landed safely on Venus, the accelerating march of approaching chaos rendered it impossible to despatch more, even if such migration had been necessary, and the great bulk of the human race settled down to die. The great and obvious consolation was that the race itself would not die and science would not be plunged back untold ages though the earth were shattered. Nature had been defeated and Man had won a resounding victory over the Cosmos. The broadcast announcement that the conquest of Venus had been achieved and that no more passengers would leave the earth seemed to open the floodgates of a great dam of human emotions. All over Antarctica it became a general holiday by spontaneous action and without any official proclamation, just as the workers had poured out of the factories on Armistice Day of the first Great World War. People just dropped everything and rushed into the streets. In the great workshops where the giant sphere machines had been built, the toilers grabbed hammers, spanners, axes—everything they could lay their hands on, and smashed up the machinery in a frenzy of relief and abandonment. Rushing thence into the open fields they shook their clenched fists at the sky where

the falling satellite almost obscured the whole firmament, and yelled:

"WE'VE LICKED YOU, YOU OLD BITCH! WE'VE LICKED YOU!"

Then by a sort of common consent they decided to turn this cosmic death into a sort of Irish wake. And there was no reason why they should not. In those last days the population was entirely adult. It was not merely that people knew that that was best, but the race seemed to have entirely lost the capacity to reproduce itself, the cosmic disaster having completely upset the balance of life.

Isolated on that continental plateau with the world falling in ruins around them people threw all restraints aside. Organised government ceased to exist, and routine work was abandoned. Only insofar as it contributed to the general fun and gaiety was it carried on irregularly and spasmodically. The last remnants of the human race were like the crew of a stricken ship singing comic songs as it sinks to the waves beneath them.

"Was there an orgy of drunkenness and vice?" asked Klado.

"Were there no Cagoulards, or Hooded Men rushing round the parks with torches and fire-crackers prying into other people's morals?" Vera wanted to know.

"Morals," laughed the pundit, blowing a cloud of cigar smoke to the ceiling, "Morals! How some people imagine the ideas of their own little day or corner to be eternal and unchanging! A striking lesson of those dying days was that morals, like all other things, are relative to space, time and material conditions. You, new arrivals from the Great Beyond, are well aware that an ancient moral code made it a dreadful crime to teach a slave to read and write, but do you think that in those Final Days—the 'Reign of Chaos and Old Night' beyond Milton's imagining—people went around with copies of Moses' shorthand notes in their pockets? I ask you was it a crime to steal when abandoned wealth lay mountains high? Was it a crime to kill when life was ghastly, appalling, and death a joyous release—when hope was gone and achievement impossible? Would it interest you to know that gangsterism and racketeering were unknown, even undreamt of, in those days? Why? Firstly, because robbery was impossible—it would have been like stealing air or water—and secondly the idea of revenge as a motive for killing when life had no value and no meaning would have been screamingly funny.

"No!" he went on, "people were sober, chaste, and virtuous as marble statues, but I'll show you what happened.

Look closely at the screen. Newspapers have vanished, but here chalked on the footpaths of the great Antarctic metropolis you see a notice.

BIG BLOWOUT ! ! !

The friends, and enemies, of Mr. Kfoops—and everybody else's friends and enemies—are gorily invited to a house-warming party in the meteor-wrecked Ocean Pavilion at 8 o'clock this evening. Dance on the roof garden by the light of the Moon—Bags of it.

Grab your own eats from the adjacent smashed warehouse. At the end of the dance guests will assemble in the Grand Pavilion. The orchestra will play "I'll Stick to the Ship Lads," and at the touching of a button forty kegs (40) of trinitrotoluol packed under the floor will explode.

Roll up! Roll up! !
Why go to Venus?
COME TO ————————! ! !

"Was the party a success? Look again at the record, my friends," said the pundit. "See the guests assembling in that great hall by the lurid light of the whizzing meteorites. They sing a rollicking chorus and at the pressing of a button the whole structure leaps skywards with a titanic roar.

"That party was followed by another—a mock wedding in which pineapple bombs were used for confetti and everyone blasted his neighbours till he was blown out himself.

"Then followed the 'Great Acid Test,' in which folks assembled in a huge refreshment bar to be served with drinks from colossal marble fountains which bubbled sulphuric, nitric, and hydrochloric acid. The stiffs were tossed in truckloads into a boiling sulphur spring nearby, and as the place was still crowded when ghastly dawn crept in on another awful day the doors were closed and the whole crowd smothered in the lethal fumes of hydrocyanic acid."

As the succeeding series of camera shots showed, such parties soon became unnecessary. Instead of inviting their friends to come along and be mopped up, people went out to meet them with pineapple bombs and machine guns. All this in the greatest of cheerfulness and good fellowship. Who cared whether he was blown up or squashed like a sticky tomato by a flying meteor? In either case it was a happy release and no one would disagree with Julius Caesar that the best kind of death was one sudden and unexpected.

Long before the final crash life had ceased. Then, with rapidly accelerating speed the minor planet rushed forward,

burst open, and finally poured itself in a torrent of ruin on the riven Earth. The Earth in turn burst asunder and in a whirl of incandescent flame its clashing fragments poured down the stream of space. Some of them flew wide of the Earth's orbit and a vast globular blob from the core itself crashed down on Venus to become a mountain of nickel, chrome and iron worked for centuries by the Venusians. It was old Mother Earth's last gift to her children.

As the cosmic dust cleared a gap in the planetary ring, similar to that between Mars and giant Jupiter stood between Venus and Mars and along it whirled, in eccentric orbits, a stream of asteroids—remnants of what had once been the home of the human race.

But the race had not perished, it had won to a higher and fuller life, and in far off Venus the recorders watched with mingled feelings the spectacular end of their ancient home.

CHAPTER TWELVE.

THE GANGSTERS OF GREENLAND

Mark Hipper's great black rocket-ship purred on through space on its way from Mars to Protonia.

His captive, Nayella Gaba, sat beside him listening quietly as he unfolded his ambitious plans. Mark had been rather modest when he had described himself as merely the Commander-in-Chief of the Protonian Navy. Nayella, with memories of her former life still haunting her, had thought that the commander of the air fleet should be an admiral, but Hipper explained to her that distinctions between the various parts of an armed force had become things of the past with super-mechanisation and space navigation.

Naya had quietly accepted her position as the space pirate's wife, and her first remark, after hearing his story of Protonia and its people made it quite clear to the bold gentleman that the piracy was not to be all one-sided.

"Call yourself what you like, Slaughterhouse," she said, "but to me you're just the boss gangster of the universe."

In fact Hipper had made it quite clear to her that he was the accepted leader of a gang of ruthless men who held Protonia in subjection. If there was a Czar there it was because Hipper and his gang wanted him there, and the story of their rise to power was amazing.

Nayella wanted to know everything at once. Where was Protonia? Was that a new name for one of the planets so queerly named by the earth folk after their mythical deities, or was it a new one beyond the orbit of Pluto? Or was it away beyond the solar system altogether, a satellite spinning around some star in a similar state of density to Old Sol himself? How did Mark get there and why were the Venusians—so far as she knew—unaware of its existence?

To answer all these queries and to avoid the spate of burning words which his newly-won bride poured out with her questions Mark Hipper turned on a penetrating psychic ray which, so far as Nayella's personality was concerned, turned back the wheels and cogs of space and time. Just as the Pundit Mahatma Oskosh Obigosh had transported his audience into an age in which they had never consciously lived, so the pirate chief of space led her back amid the scenes of a dying world.

In fancy she found herself back in a past age under a sky made terrifying by the approach of that colossal lunar mass. In fancy she could hear the ticking of the cosmic clock as with every moment global death drew nearer. "Tick-tock, tick-tock—the end of all things approaches."

When the seas began to boil through the heating of the atmosphere the Torrid Zone became an impassable barrier between north and south, and the continuous hail of meteorites combined with unimaginable storms closed the sky route also, but Man still found a refuge in the polar regions and there clung tenaciously to life. Clung also to something much more important than life—the hope of a way out for some of the best of the race.

The melting of the South Polar ice cap had provided the refugees with a temporary home with mineral wealth in undreamed of quantities. For some reason rare and useful metals like beryllium, tungsten, chromium, magnesium, vanadium, rhodium, osmium and iridium were found there in such quantities as made the deposits of once populous lands trivial. It was a merciful gift from an otherwise ruthless Nature—a gift which Man was not slow to appreciate. He had, in fact, used it to achieve his cherished dream, the emancipation of some of the race, for it was here that the great spheres which made possible migration to Venus were built.

On the northern side of the Globe the polar regions were also freed of ice, but here the contrast was not nearly so striking. At the Pole itself and for a considerable distance round it there were frozen seas which soon became an open ocean but the great marsh and tundra wastes of northern

Canada and Siberia, though frost-bound were not buried beneath glacial ice sheets. Antarctica, on the other hand, had been so completely buried that much exploration had been necessary before it was determined that it was a continent and not a frozen archipelago. During the brief summer period the Arctic regions had basked in quite appreciable sunshine and even navigatioin from Norway to Behring Straits had been possible. There was, however, a parallel to Antarctica on a smaller scale. The minor continent of Greenland with an area almost one-third of that of Australia had been buried for ages under a thick glacial sheet. When it melted and the dawn of a cosmic spring-time clothed it with rapidly growing vegetation it became worthy of its name. It was soon clad in a mantle of green and while not as abundantly endowed with mineral deposits as the great isolated continent of the south it provided rich store of useful metals.

In this favored spot there sprang up another centre of human energy and effort, and for awhile events shaped themselves in much the same way as in Antarctica where men lived and toiled all unconscious of what was happening at the other end of the axis. Researches were being made and experiments in special navigation carried out on similar lines, the common starting point being the stage reached before the cutting off of communications. That starting point was more than elementary. Both sides, in fact, began their competitive race with the report of the first robot machine which had landed on Venus and flashed back to the earth a useful account of conditions there. In metallic tones it told that the planet was ready for occupation, conditions of land, sea, and air were fit for human life.

For awhile life in Greenland moved smoothly along the path of co-operative effort towards the desired goal—an aim quite clear enough for all to understand, and then, like the sudden outburst of a dormant cancer the reaction set in. A state of social decay finally threw to the top and endowed with the title of National Leader a Napoleonic gangster named Dey Vahlen. Vahlen was a rare genius who combined a profound mastery of abstract science with a practical grasp of politics and a ruthlessness of character. A Professor of Physics in a Canadian University, and an adventurous spirit who had carried out explorations in the stratosphere his achievements had brought him fame and honors, but there was something which he craved more than either—power and domination over his fellow-men. He had a weakness for flattery and whenever he did something great sought the widest publicity and was disappointed if he did not get it.

In the ordinary conditions of the society which prevailed before the earth was divided his faults would have passed unnoticed and his good deeds have lived after him, contrary to the Shakespearean adage, but the isolation of Greenland changed those conditions radically. Unlike Antarctica it had only a small population and in a place where everyone knows his neighbour's business factional strife may easily develop. Vahlen saw this, sensed the general drift of things and conceived the bold idea of enslaving the masses and concentrating power in the hands of a small group with a monopoly of technical skill which would render their opponents powerless. His chief lieutenant was Vern Rayo, a scientist of equal capacity. Here then was the fountain head of that cosmic racket which had marched down the ages and finally handed the mantle of power to Racketeer Mark Hipper.

One day as Vahlen and Rayo were working together in the latter's laboratory Vahlen unfolded to him his plans. The laboratory was a glassed-in affair and it stood on a jagged sandstone cliff beside a great fiord which the giant finger of the moving ice cap had chiselled out on its way to the sea. Below the cliff the warm waves of the open Arctic broke on tumbled rocks and piled up sand and away to the horizon stretched a waste of troubled waters where not so long before ice floes had drifted and crunched in slow-moving mass.

"Rayo," said Vahlen suddenly, "Got any ideas?"

"About what, Dey?"

"About this cosmic racket. I mean who's going to run the show from now on."

"As I understand it, Dey, our job is to find ways and means of getting off this lousy old mudball before it grinds itself up into asteroids. Any objection?"

"None whatever. As you put it, Vern, that is the job and we're not a bit ahead of our time in tackling it. I'd hate to think that we were."

"What do you mean 'ahead of our time?' Isn't the precise date of the lunar burst-up as nicely calculated as that of any past eclipse of the moon? Isn't it marked on the calendar and what intelligent person disputes it?"

"Sure. That's why I'm with you all the way on that job, but I'll tell you what I mean. You've read, no doubt, that ages, epochs ago in a country called France there was a pseudo-scientific society which dabbled in the subject of interplanetary navigation."

"Pipe dreams in those days and conditions," said Rayo.

"No, in my opinion something worse than that, Vern.

You will remember that this was on the eve of the Second World War in which France was openly and grossly betrayed to her Nazi conquerors, and it seems to me that in those critical days space navigation must have been good chloroform."

"How?"

"Well, you see, Vern, if you start people chasing moonbeams or even talking about moonbeams or saying that their greatest savants and most worshipful pillars of society are chasin' 'em, then you take their minds off practical things. Maybe they were a lot of dithering old fogies who never really meant it that way and maybe I've learned to suspect everybody and everybody's motives, but there must have been a lot of pro-Nazi Frenchmen who were tickled to death to see some of their learned compatriots gaping at rocket-ships to Mars, instead of short-circuiting the telescope and taking a good look at the diabolical sell-out that was being readied up right under their noses. For we do know now that France was being betrayed six years before the Germans marched."

"Maybe you're right, Dey, but you'll have a job taking the minds of the masses off Madam Luna any of these nights, or days either. Man, she's as big as a thundercloud and tossing mountains at us like a nasty little boy with pellets in a finger shanghai."

"Which, as I sought to impress upon you in the first place, my learned colleague, brings the whole matter within the range of practical politics and justifies our honest toil."

"Oh, I see, Dey, but surely some of the things that they figured out in those days must have helped even if it was only a tiny bit."

"They'd have helped a lot more if some of the more obvious messes had been cleared up first. I've no patience with people who make science an excuse for running away from realities. First things first is logical reasoning, and it is my view that no really great human problem can be properly tackled till it becomes pressing enough either to interest everybody or hurt everybody."

"Well, the problem of getting off this blob of mud and water seems to interest everybody now."

"Right, Vern. Now do you want to be one of those who get off?

"I certainly do. In fact, old dear, I wouldn't mind bumping you off to achieve that happy result, just as I am sure you would bump me."

"Why? Do you feel that your sterling merits exalt you above your fellow-men."

"Damn my fellow-men," answered Rayo.

"A splendid axiom, pal. Worthy to be inscribed in marble and brass. Damn our fellow-men, but by all means make use of them. The racket is punk if we can't. My sentiments precisely, Vern. That always *has* been my sentiment. Do I want to see the human race march from achievement to achievement, leap from mountain crag to mountain crag on the track of progress with ever more crags and more rocky heights before it? No by jingo, I want to live, to be happy, to enjoy things."

"What's your main idea of enjoying life, then, Vahlen?"

"To get what I want and make other people bring it to me. I want to lead, to command, not to be one of the ruck."

"Surely you appreciate the esteem of your fellow-men, Dey. I know you're a conceited ass for all your high and mightiness."

"Esteem, bah. I'd just as soon have their hatred, scorn and contempt if I can get what I want out of them."

"But surely the great Professor Vahlen wants to leave behind him a name that posterity will revere."

"Posterity, hooey. I'll tell you a fable, Vern. A dead louse once said to a dead lion, 'We're both dust now, and for all the nice things they say about you and the nasty things they say about me your dust is as my dust.' "

"What then?" asked Rayo.

"Just this, Vern. That when it comes to the take-off and our spheres start rolling across space to a super-world we're not taking the sheep with us. No my worthy pal and colleague we're going to form a select company of our own. We'll do the migrating and let the herd of sheep perish."

"But how will you get along without the sheep. If it's to be a select company of scientific wake-ups who'll take orders from whom?"

"Vern, old boy, I'm going to surprise you. We're not taking the sheep because *they're already there* where we're going."

"You don't say. You mean that Venus is inhabited?"

"Why Venus in particular?"

"Isn't that the goal of all our efforts!"

"No, it is not. Now Brother Rayo, will you recapitulate the virtues of Lady Venus. Tell me, again, the many reasons why that brilliant evening star so charming to the eye of mortal man has been chosen as his future abode?"

"Firstly then," said Professor Rayo, "It is our nearest neighbour. It approaches at times to within 26,000,000 miles of the earth, and that means that with a rocket-ship moving at 2000 miles an hour—not such a great speed in the spatial vacuum—we'd get there in 13,000 hours, which amounts to a few days under a year and a half. Now as to the habitability of Venus. We know that it has an atmosphere like our own, that it is terra firma and not a molten mass. Its surface gravity is 85 per cent. of that of the earth and its diameter only 218 miles less than that of our planet which it resembles more than any other. Also it has no pesky moon to play pranks at some future time, and its climate is bearable, and lastly, as the observations of that memorable transit of June 8, 2004 A.D. at nine of the clock in the forenoon, Greenwich Mean Time, first established it is inhabited by primitive forms of life."

"From all of which, Friend Rayo, you conclude that we are steering straight for Venus?"

"Am I mistaken, maestro?"

"Yea, verily. So let me turn your eyes outwards not inwards towards the central luminary."

"You mean Mars! That dry senile waste of burning sand and tenuous wisp of atmosphere. Bah, you surprise me, Vahlen!"

"Do I? Look further again."

"Beyond Mars the Orbit of Calamity. A mass of asteroids, remnants of a shattered planet, sweeping along in a broad path around the sun. Beyond that Jupiter."

"Yes, indeed, the giant Jupiter."

"That colossus of the solar system. A mass of fiery magma with a thin crust ever disrupted by the fires within, and ever forming again till that distant epoch when it may become, like our Earth which passed through the same process, the abode of life. But how could man dwell on a sphere of such gargantuan proportions even if climatic conditions favoured him. Contrast its diameter of 86,500 miles with that of the Earth 7,918! Then imagine:

"The ploughman homeward plods his weary way, with all the tombstones of Grey's country churchyard tied to his feet in that Jovian gravitational pull!"

"By jove, not bad," said Vahlen. "But the old heathen joss, if I may follow your cue to be poetical has a family—quite a family you know."

"Yes, friend Vahlen. History records that a chap named Galileo—the first to make practical use of a telescope—discovered four of them in a bunch."

"Yes, the poor old blighter was caged in his own home for the rest of his days for finding out things that ran contrary to the top-class interests of his day. Of course you can't expect to allow a paltry thing like Truth to tumble the Mighty from their seats without making a fight of it. Great pity he

couldn't have discovered just what the heads wanted him to discover."

"As you say, Vahlen! Had he been a Parliamentary clerk handling figures he might have used those immortal words: 'What does the honourable minister wish to prove?' "

"So, so, but I'll tell you this, Vern. When I go racketeering in space, there's one thing I'll dread more than the impact of all the bombs and engines of an embattled foe, and that is the plain unvarnished truth and its shattering influence on my heelers. I've never known or heard of any despotic power which did not make a primary object of its suppression."

"Well, to get back to Jove," said Rayo.

"Yes, Galileo discovered four of Jupiter's satellites in a bunch and gave them jossy names, Io, Europa, Ganymede and Callisto. Jupiter has nine moons in all, and some of the outer and smaller ones may be merely fragmentary bodies—asteroids—picked up by the gravitational pull of the giant in his sweep through starry space. So let us confine our attention to the larger ones—the four Galilean stars, as the ancients called them. Bearing in mind the earth's diameter of 7918 miles, let us note what really substantial fellows they are. Here are their diameters: Io 2109 miles, Europa 1865 miles, Ganymede 3273 miles, and Callisto 3142 miles. There is only one satellite in the solar system bigger than Ganymede —Titan, the huge satellite of Saturn. That the Moon compares in size with the biggest of the satellites of those collossi of the solar system, Jupiter and Saturn, shows what a freak it is. Relatively to the parent planet, it is enormously greater than any of them. A twin planet made up as our Earth was bound to come to grief sooner or later. You are well aware, Rayo, that all our astronomers have been devoting their attention to Venus exclusively, and that Jove and his team have been neglected—sadly neglected, in my opinion."

"An oversight?" queried Rayo.

"And a strange one," added the maestro. "Strange, indeed, seeing that the ancients, who did quite a lot of free speculation, were known to have made vague guesses as to the habitability of one of the biggest of the Jovian satellites —Ganymede.

"I've read quite a lot about that historic period. Fortunately, a lot of its records have come down to us through the micro-photographic process. It revolutionised library work by making it possible to pack the contents of a fair-sized book into the size of a postage stamp. That was at the close of the Atomic Age, when developments in radio and the like had set men's footsteps at the threshold of the Sub-

Atomic Age. It turned out to be the Age of Manufactured Elements. Prior to that the ancients had thought themselves quite clever in building up compounds such as the dyes and perfumes they extracted from coal tar. The immutable elements themselves were now juggled about; for example, gold was produced simply by pulling a proton out of an atom of mercury."

Vahlen's face lit up suddenly. He slapped his thigh in his excitement. "By Jove and by Ganymede, a jolly good title. I'll call it Protonia."

"You'll call what?"

"Ganymede, the inhabited sub-planet of Jupiter."

"Inhabited—you're crazy."

"Of course, of course, Vern Rayo, old boy. What discoverer or inventor wasn't that way to a lot of people? Imagine the pre-historic applause, the rounds of blue-metal confetti that must have greeted that unknown savage, John Doe or Steven Roe, who made the greatest discovery of all time by building up a fire. Bats in the belfry, eh what, and why?"

"Ganymede—your Protonia—rotates on its axis in the period of its orbital revolution."

"Which means in plain English, Vern, that it always keeps one face turned to the parent planet, just as our Lady Luna did before she took on an overload of 'plonk' and went out on a terrific jag to smash the encarnadined galaxy."

"Which means, of course, that one side is dimly lighted by the rays of the distant Sun. How feeble that light must be we know from the fact that Jupiter is 367,000,000 miles beyond the Earth, and that is about four times the Earth's distance from the Sun. The other side of Protonia must be poorly lighted by reflected light from Jupiter."

"I wouldn't say that it was poorly lighted. You will remember that Jupiter reflects forty-four per cent. of the sunlight that falls on it, and its diameter is eleven times that of the Earth. The distance between Protonia and Jupiter is less than three times the Moon's original distance from us. So you will see it is not a case of a pale orb lighting the evening sky. What a magnificent sight Jupiter must be from the surface of Protonia—a miniature solar sysem with the three other big satellites plainly visible, and the fiery surface of the planet itself ever changing."

"You conclude, then," said Rayo, "that conditions are favourable to life on Protonia. In fact, I understand you claim that it is inhabited."

"More than that, Vern, my friend; I have positive proof that it is, and that by a species of anthropoids who, judging

by their buildings, are at least as far advanced as the pre-Columbian Mexicans."

"Your proof," Rayo almost shouted in his excitement, "Your proof!"

"My super-telephoto camera," answered Vahlen. "As great an advance on previous methods as Galileo's optical aid was in his day. You know how I have toiled and studied over it. At last I perfected it, and when it was ready I turned it, not on the much-discussed evening star, but on Protonia, and there I saw—I, the first human to gaze on this wonder—evidences of structural work, colossal towers and pyramids, ploughed fields and growing crops on this neglected gem of the skies tucked away under the wing of Red Jupiter."

"You are sure of all this, Vern?"

"Sure, absolutely sure. Not until I had eliminated every possibility of error would I accept it."

"And you alone know this?"

"I alone. No one on Earth can possess such a camera as mine."

"I think that this should be kept a secret, even from members of the gang, till we have everything ready."

"Most decidedly. Don't say I'm looking for limelight this time, Vern."

"To turn this discovery to account, all we need is a space ship that can make the journey, and we have now advanced far enough to rest assured that we shall soon have one ready. Then what do you propose to do?"

"Merely what I hinted before," said Vahlen. "We'll take only our own select company on this stellar voyage. Let the rest of humanity rot. Nor am I interested in salvaging art treasures, literature, music and the like."

"So," added Rayo, "the sheep are there ready and waiting for us on Protonia."

"That, my friend," said the unscrupulous scientist-gangster, "is the beauty of the whole thing. For too many centuries this planet of ours has been lacking in inferior and servile races to take orders from superior persons like us. But the sheep of Protonia are not only ready to be shorn, but herded together on one side of the planet. Already in the pen, as you might say! Ha! ha!"

"What's the advantage of that, Dey? Won't we land among them? Surely we can give 'em the supernatural dope. Remember how Cortes handed it out to the Mexicans, and they thought his horses' necks were angels' feathers. Jimmy Cook worked the same racket on the simple

Hawaiians. They hailed him as the great white god Lono, you know, set him up and worshipped him."

"Yes, and I also know that they bumped him off when they woke up to him. No, friend Rayo. We'll have to make ourselves quite at home in our new surroundings first. As you've read so much of ancient history, you'll know that a few million years ago, or thereabouts, a people called The Limejuicers got into a lot of trouble with the Maoris by colonising the wrong island of New Zealand. Had they landed in the south, where the climate favoured the migrants and aborigines were few, they could have established themselves comfortably and without interference; instead, they went into the North Island, where the warmth-loving Polynesians had taken firm root. Result—plenty of strife and trouble."

"But so far as Protonia is concerned, our Maoris are already on the better side—maybe the only habitable area—as it is obvious that they have never been compelled to shun the cold and dark."

"Which from our point of view, Vern, is the better side of the sub-planet."

"That doesn't sound logical to me, Dey. Do we have to freeze on the outer while the native sheep browse in Jove's warm smiles? Regardless of what happened to Jimmy Cook, alias Lono, I'm in favour of the Cortes act. Land right among them, and, just as the conquistadors' quadrupeds scared hell's bells out of the simple heathen, let our stellar horses strike awe into the Protonians."

"You forget, my friend Rayo, that Cortes, for all his fine horses and men in armour, didn't conquer Mexico. He merely allied himself to native armies, which helped him greatly against the hated Aztecs. Men in great masses are always awkward cattle, even though they be armed but with stones against knights in armour. We'll land where we can make ourselves quite at home and are free from unwelcome visitors till the day comes when we can do, as you say, the conquistador act."

"Meanwhile we'll perish on a dark and desolate waste, which, by all the rules of the game, will be buried under a vast ice sheet."

"There are exceptions to all rules, Vern Rayo, and in this case volcanic activity and boiling springs have made considerable areas of the darker side of Protonia habitable. We'll provide our own daylight by fluorescent lighting, and make our own sunshine too when we are properly settled down. We've conquered polar regions just as forbidding as any

spot on Protonia. Besides, we're not taking a big crowd of people—only the members of our own Black Hand gang."

"How many members do you count on, Dey?"

"Twelve thousand; that's quite enough for our purpose, and all of them are scientific specialists. We'll set up our own kind of state, then round up the fat cattle who bask in the sunshine on the pleasant side of our new globe. We'll yoke the lazy herd and make them pull."

"Splendid, splendid. Have you arranged transport, Brother Vahlen?"

"I've mastered that problem already," said the Leader magnificently.

"Yeah, Dey, with the personal pronoun in black capitals. Omitting to mention the millions of scientists, living and dead, who have contributed perhaps or mayhaps, in some minor degree to that grand result:

'Alone I did it, Boy!' "

"Who said that, you bunk-shooter?"

"Bill Shakespeare."

"Who the hell is Shakespeare? Is he in our gang?"

"My learned friend," said Rayo solemnly, "behold the lamentable narrowness of one who has had nothing but a highly-specialised training in an opportunistic environment. Like a cosmic colossus you stride the void between here and Jove's fiery magma; you rattle the Galilean stars like peas in a bottle, and yet you think that Bill Shakespeare is one of the boys! Why, man, Bill wrote so long ago that he died firmly believing that the sun ran round the earth, and the village ale-house was the centre of the universe:

'O Day and Night, but this is passing strange!' "

"But who the blazes was he anyhow?" the Big Boss still wanted to know.

"Who was he?" repeated Vern Rayo, the super-gangster, with a glance of withering scorn. "Why, he was the flunk that wrote a play called 'King John' *and made no reference to Magna Charta.* But no matter, Vern, you wouldn't understand the least little thing about that. That's away and away above your head. Keep on juggling the satellites of Jupiter and don't meddle with transcendental things."

Vahlen was about to reply when a uniformed officer rushed in.

"A message from General Auter," he said, saluting Vahlen. "News of our plan to wipe out the surplus humans has leaked out, and to meet the counter move His Excellency had to start the general massacre without awaiting your orders. You will please join him at headquarters."

Without a word, the two super-gangsters rushed out, led by the officer.

The plot had been prematurely exposed, and the gang was fighting for its life. Unless it gained the upper hand there would be no migration at all from that side of the planet.

CHAPTER THIRTEEN.

WAR AND MASSACRE.

When Dey Vahlen, super-gangster of Greenland, and his henchman, Vern Rayo, rushed from the laboratory, they found that civil war was in full blast.

The survivors of the general disaster who had huddled together for mutual protection in Greenland did not number more than a million and a quarter, and they were concentrated in and around the metropolis, Urbo Delfina. Agriculture had long since passed into the factory stage. Foodstuffs were no longer produced directly from the land, but vast mechanised tracts produced raw materials for the factories, which transmuted them into all kinds of foods, vitamins, fabrics and plastics. The raw substance of bread and butter bore no more resemblance to plant or animal than the basic materials of synthetic rubber, coke and limestone bore to common elastic.

Under these conditions the countryside was a place of small factories and laboratories rather than farms. It was a place for collecting the raw stuff, and its farthest bounds did not stretch more than a hundred miles from the city's centre. There was therefore no isolated rural population at all. Everyone was in constant touch with his neighbour, and even the subtlest moves on the political chessboard became common news rapidly and travelled fast.

Space-ships had gone beyond the blue-print stage. Elementary models were, in fact, being tried out, and hundreds of lives were being used up recklessly in experiments and explorations in space. The task of transporting Greenland's meagre population away from the disintegrating planet was considered to be well within the bounds of possibility, and it had been generally assumed that no distinction would be made when it came to the exodus. Everyone wanted to go, and most people felt that the prospect was the one thing which made life bearable. Venus was the star of hope—its name was on everyone's lips.

But Vahlen and his Black Hand gang had other ideas. While professing to be a body of intellectuals, burning with an unselfish enthusiasm and a desire to sacrifice themselves in the people's service (to their credit some of the gangsters *did* lay down their lives, but the others made plenty of capital out of that fact), they were really scheming to control and monopolise the means of transport. With this monopoly —furthered by the fact that nearly all of the best technicians were members of the gang—they hoped to prevent the escape of all but their own confederates. The new world beyond the skies was to be run the way they wanted to run it—the way of monopolised power and privilege.

Vahlen while the real head of this gang managed to keep himself in the background, wrapping himself in a mantle of lofty and disinterested science. The open work of strife and combat, provocation and noisy falsification was carried out by a number of "faces," as they were described by the real steerers—the inner group headed by Vahlen and Rayo. These "faces" were fanatics crazed by the general chaos and horror.

A difference in quantity will often produce a variation in quality, and the meagreness of Greenland's population may have produced a psychological instability which was absent from the more confident people of the south. Whether the Venusian savants who in later years formulated this theory were right or wrong, the fact remained that the Urbo Delfina had produced a lamentably large number of freaks—people who translated childish fears and terrors, and cowardly desires for personal safety, into a sense of superiority, a wish to strut in brief authority, and a conviction that they should survive at all costs. If that cost were the sacrifice of the rest of the human race, it was cheap to them.

Professor Dey Vahlen, to give him his due, had not placed himself at the head of this panic movement through cowardice or fear, but he hated the common people with a deep hatred, and was willing to use any instrument against them. So he organised the gang, and carefully hand-picked its executive from men whom he could easily control. The one fly in the ointment was Vern Rayo, a man too capable to be done without, and Vern Rayo understood Vahlen so well that he openly boasted that one day he would bump him off or be bumped by him.

The vision of that marvellous colony beyond the ocean of space haunted the Boss Gangster day and night. It was like the rescue of the Holy Sepulchre to Christopher Columbus —pioneer of the most unholy and ungodly racket of negro slavery in the Americas—or the building of the New Jerusalem in the South Seas to De Quiros. And De Quiros went down in history as the pioneer of graft and the father of all political ramps in Australia. It was his substitution of bottles of wine, to be sold at a nice profit in Manila, for barrels of water for his thirsty sailors that led to the mutiny which lugged him by the ears back to Mexico, while his successor, Prado, was steering through the straits which were given his pilot's name.

All genius being one-sided, Vahlen, too, could fall down on the simplest things. He had never admitted to himself that the much more powerful and populous nation at the other end of the axis, Antarctica, might send out its own colonial armies to Venus, though, as it turned out, those armies were numerous enough and well enough equipped to have annihilated the racketeers. Nor had he the slightest suspicion that his gang would, in any case, carry the seeds of its own destruction.

History records that, when the mutineers of the "Bounty" sailed to Pitcairn Island, they tried to grab the whole of the land for themselves and make slaves of the Tahitians whom they had brought along. Result, a general massacre in which Adams alone survived. Vahlen's gang would have gone the same way if it had not been for the racketeer's great achievement in establishing the fitness of Protonia for settlement and his daring in undertaking the much longer voyage. That in itself would not have saved the gang from suicidal strife, but the presence of a weaker race on Protonia made all the difference.

There would never have been a Vahlen gang if the two sections of the divided human family had determined to maintain contact with each other by the roundabout course of navigating in space outside of the narrowing orbit of the Moon, but all efforts were concentrated on reaching another planetary home, and both groups accepted isolation.

The event which called for an immediate showdown in Urbo Delfina was the blowing up of Professor Dalny's laboratory. Professor Dalny and his skilled staff had, after many experiments, devised a means of interplanetary navigation. They refused to submit it to the Central Authority, fearing the sinister influence of the gang on that body, but declared that when they were ready they would produce machines on a big scale. Their intention was to provide transport sufficient to enable the whole of the people to be moved to Venusia. They scorned the theory of the survival of the chosen which was being whispered about by the gang, and pointed out that a large and well-organised group would

have a much better chance of surviving a hostile environment than a small one.

The announcement naturally caused the wildest excitement and enthusiasm. Then came the stunning news that the laboratory and factory had been blown up and the whole of the staff killed. The attempt of the "face-men" of the Black Hand gang to explain this away by attributing it to a falling meteor only added fuel to the flames of popular fury. Everyone knew that the falling lunar fragments were taking an increasing toll of human life, but they knew also that the gunmen and pineapple bomb distributors of the Black Hand were at work under conditions which made human life very cheap. The coincidence that a lunar fragment should fall at the most favourable moment and wipe out the industrial plant on which all the hopes of the race were centred was too much to be accepted. Demonstrations and riots broke out at once, and the strongholds of the gang were assailed.

Had the people not struck when they did, they would have been wiped out expeditiously by Vahlen's gangsters. His plans were all complete, and everything was in readiness for the coup when fighting broke out. Instead of having an easy victory, with the rattle of machine-guns and the thud of colossal bombs taking toll of a defenceless people, the racketeers now found themselves hard-pressed.

Mass movements have an unpleasant way of throwing up capable leaders apparently from nowhere, and to the dismay of the egotistic Vahlen and his heeler, General Auter, the popular leaders were showing good generalship. They had first of all seized all the means of communication by radio, telegraph and telephone. The central aerodromes, the biggest railway trucking yards, and the main car service stations were in their hands. But one trump card remained in the hands of the racketeers; that was the great central power station with its six underground storeys and acres of machinery. This was the gangsters' well-guarded citadel, and it became the objective of the opposing forces.

Until that day it had been assumed by all the masters of military strategy that mastery of the air meant victory for whoever had it. It meant the power to shield advancing ground forces, to leap all distances, to bomb from great heights, and to rain down destruction on a vast scale. But improved technique can outmode the best of weapons, and the supremacy of any instrument of war does not remain unchallenged very long.

The atmosphere, thinned by perpetually burning meteors, was not what it had been, and the "ceiling" it provided was much lower than in the days before the celestial change.

When the people's aircraft and bombers came over, they were met by a barrage of heat rays which swept the skies like giant searchlights away up and beyond the "ceiling" available to the speeding planes. These rays were generated by giant motors deep down in the earth and secure from the blast of even the heaviest bombs. Along a swaying beam they concentrated such terrific energy that, though nine-tenths of it was dissipated in air, the other ten per cent. was enough to burn up any machine with which it came in contact. Sweeping the skies like giant searchlight beams, they were everywhere at once, and there was no escaping them. Whenever they made contact with the light metal of fuselage, plane, or aileron, they burned it up; wherever they touched the bomb racks, there was an explosion and the machine flew to pieces.

Crippled and broken, a few shattered survivors of the People's Air Navy crept back to their bases, but not to safety. Death and destruction followed fast. From the gangsters' citadel vast aerial rocket bombs took off, rose screaming into the air, and descended on dromes, wiping them out and leaving yawning black chasms of scorched earth. Rocket after rocket landed on all vantage points held by the popular forces. One rocket, one stronghold! That was the slogan. As each bomb fell, it wiped out a centre of resistance, and soon all opposition to Vahlen's legions had ceased, but the bombardment did not end there. Out beyond the perimeter of the battlefield, out into the open country, away into quiet centres where but a few humble folk were gathered together at the daily tasks, flew the shattering messengers of death. Some were loaded with huge charges of explosives which rocked the countryside with mighty detonations, others were filled with lethal gases which sent out waves of sudden death or loaded with fiery compounds which laid waste fields, crops and houses under billowing flame. Soon the whole place was a shambles, where, amid the reek and stench of foul smoke and poisonous gases, a mass of dead and dying humanity weltered amid the ruins.

Then followed what Vahlen aptly described as "the clean-up." From the citadel special legions of gangsters rushed forward. They were armed with machine guns, hand-grenades, flame-throwers and hatchets, and they fanned out over the countryside or groped through the city's ruins into every

place where there might be survivors. There they bombed and shot every living thing, even including pet animals, or split the skulls of the wounded in proper Red Indian style.

When night fell the gang was supreme. Not a living thing remained to oppose it.

CHAPTER FOURTEEN.

THE FLIGHT TO PROTONIA.

Having witnessed the final scene of carnage which marked the triumph of the Vahlen regime, just prior to the flight of the Black Hand gangsters to Protonia, Nayella came back to her immediate surroundings with a start.

"Say, Mark Hipper," she asked, "was that Vahlen the guy that started your racket?"

"My dear," answered the space pirate, "Vahlen was the Illustrious Ancestor of our Protonian nation. As you should know, Naya, my queen, every great nation has had its Illustrious Ancestor. Rome had its Romulus, Carthage had its Dido, the Iroquois Confederation had its Hiawatha, and Australia had Ned Kelly. It is true that Vahlen died some billions of years ago, but his memory lives with us to-day, and the grandeur of his noble deeds is an inspiration."

"Yeah," said Naya, "I guess it would take at least a billion years to live down a record like that."

"You talk too much, little parrot," protested the pirate. "Keep quiet while I unfold to you the rest of this simple and truthful narrative."

In another moment Naya was back in Urbo Delfina, or what was left of it. A few weeks had elapsed since the big massacre, and in that interval there had been some cleaning up and removal of debris. The gentle slopes of a big hill where tall buildings had once stood was now covered with soft, springy grass and on it rested a colossal sphere of shiny plastic material. In front of it stood the triumphant racketeer Vahlen and his right bower Rayo.

"At last," said the Big Boss, "we're all ready for the plunge Here's our first machine, Rayo. There are plenty of others to follow. We can roll 'em off the assembly lines like motor cars."

"It's a long way to Protonia, Dey. Are there enough of them to take all of our gang?"

"Enough and to spare. We can complete one every three days from now on and as each of them can carry 500 people that means that we can shift the whole gang in ten weeks."

"I should have imagined something more torpedo-like," said Rayo looking up at the globular space-ship.

"Streamlining in a vacuum," replied Vahlen scornfully.

"Not so much of a vacuum as we have been led to believe," replied Rayo. "Stellar space which shows traces of tenuous gas and variations of temperature can hardly be called a vacuum. If it were a complete vacuum light waves would not penetrate it."

"Now, don't let us stir up old arguments, Vern. Enough that we know that space is by no means all that the ancients assumed it to be. Some of them were rather ready to make assumptions by the way. When they found evidences of low temperatures in the stratosphere of Jupiter's dense atmosphere they were quite ready to assume that the planet's surface was frigid, in spite of the convincing evidence of that great red and ever-changing spot floating on the surface of fiery magma. But there is one matter to which I must draw your attention. You will note the absence of any external projections on the sphere."

"I was just wondering about that," said Mayo. "There is no provision for going outside the sphere during its flight through space."

"The assumption being, of course, that anyone could calmly step out into space anywhere between Greenland and Jupiter, and moving along under an inky black sky observe the stars then gently float back again into home comforts."

"In the absence of gravity it seems that that would be quite possible."

"In actual practice, Vern, it would be attended with one slight disadvantage."

"Indeed!"

"Yes, the trifling inconvenience of dropping down into the centre of the sun."

"And why?"

"Because the absence of gravity in stellar space is a rare old fiction which ceased to do service as soon as someone had the courage to doubt it and the ability to test that doubt."

"Meaning me?"

"No I, Dey Vahlen, your Leader."

"Salaam Sahib! Proceed."

"I have discovered," resumed Vahlen, outwardly indifferent to his satellite's sarcasm while inwardly determining to bump him off at the first opportunity, "that as the solar system gyrates, as if it were a solid sphere, round the central Sun it has its centre of gravity just as the Earth has. The

centre of gravity in this case is the Sun's centre, and any object in any part of the solar system has a tendency to fall towards it. If, for instance, the planets were released from the centrifugal force exerted by their flight they would drop into the Sun."

"Seems logical enough, Dey. By the way, if you think that the idea of gravitation began with Newton and his apple tree read that passage in Dante's Inferno which refers to the centre of the Earth as that point to which all things are drawn!"

"Glad you mentioned that book, Vern. It might give me a few ideas. In fact it does remind me. There's a little score to be settled with our friend General Auter. He has been conspiring with certain members of the gang to wipe out both of us."

"So, so. Then we stick together, Dey, or come unstuck together."

"Quite! But I've arranged something rather sticky for His Excellency, the generalissimo. He'll be the first to take off in this sphere. You understand my method of navigation?"

"In general principle, yes. You'll concentrate as much solar radiant energy as the citadel's powerhouse can collect, direct a power beam towards Protonia and the sphere will be propelled along it. The passengers in a state of suspended animation will be packed inside, and on arrival near the Protonian atmosphere the sphere's motors will be slowed down so that it can enter without destructive friction. When it lands the doors will automatically open and the new arrivals once more breathing fresh air all wake up and get out."

"Not in Auter's case, Vern. The doors will open in the Jovian atmosphere in a strata where the density is equal to that of our own at sea-level."

"Why?"

"So that they'll have a nice round trip. Round and round, getting ever closer and closer to that immeasurable ocean of fire and flame on Jove's Brobdingnagian surface. What a pity I won't be able to talk to them. I'd like to ask Auter if he'd choose between being choked in Jupiter's dense atmosphere at ground level or plunged straight down into that hyper-planetary cauldron of fire."

"You're a great pal, Vahlen," chuckled Rayo, "a great pal. And, of course you know I'll do as much for you some day."

"Sure, but we're partners now. Let's not forget it."

* * *

The gentle scheme of the sweet-natured Vahlen was, however, frustrated by an unforeseen accident. As the first of the great spheres rose and winged its way to the upper atmosphere, there was a terrific explosion. The power ray had been turned on too strongly so that instead of operating the space-ship's motors it shattered the hull, and the whole contraption flew into a million fragments which burned up in a sheet of flame like a meteor falling through the skies.

Undeterred by this accident, undaunted, even by the knowledge that the destruction might have been deliberately planned by their ruthless leader, the gang's fanatical members stood ready to embark. Another sphere was soon packed with human freight, the necessary adjustments were made in the power-house and up it went to the stratosphere. Another and another followed at intervals of a few days.

The death and glory crew for the power-house had already been picked. These men were to keep the spheres in flight, landing them one after another at their destination on Protonia, and then awaiting death or going to meet it. For them there would be no escape from the stricken planet and, incidentally, the lives of all those embarking would be in their hands. They would give life to others by sacrificing their own. So great was the fanaticism inspired by Vahlen among his followers that hundreds of them fought for the honor of performing this task. Lots were drawn and the powerhouse crew finally chosen. Vahlen and Raya went together in the last machine to leave. Neither of the racketeers could trust the other, so they both packed themselves into the same globe.

The great globes were now lined out in space one after the other. As soon as one completed machine had left the factory it was wheeled to the aerodrome, packed with its freight, and sent off. On a journey of such duration an interval of a few days was only a moment. It was comparatively less than the interval between railway trains on the same line which safe working demands. Some of the spheres were packed with passengers, others were loaded with freight, instruments, books, and all the other odds and ends that the pioneering racketeering voyagers deemed necessary. On they sped, directed by that great beam of solar energy, and from their path all wandering meteors and comets were brushed aside like chaff by the radiant energy of the spheres.

One after another they landed on the palm-clad plain which Vahlen had chosen for them, and the doors were swung open by electric motors. As the warm fresh air of Protonia laden with sulphur from gushing volcanic springs

tickled the passengers' throats they awoke and stepped out under the grey skies of their new planetary home.

Back at their post in the citadel the mixed crew of young, fanatics to whom glory was greater than death and old savants to whom life was an utter bore stuck to their posts observing, guiding and checking till the last sphere had landed safely.

Then, as men wearied by a great task, they lay down to sleep forever.

On the wall of the great dynamo room, in imitation of one of the minor poets, one of them had chalked up:

No sound of slave-herds pouring
To toil on concrete flooring,
Or factory whistle roaring
The loathsome name of Boss.
Nor shriek of engines driven,
Nor clash of planets riven,
Nor bugle blast from heaven
Shall mar that Timeless Doss.

CHAPTER FIFTEEN.

THE PIONEERS OF PROTONIA.

Under the grey and leaden sky of Protonia a huge global space-ship came down on a steep slope. It did not rest, it went rolling downhill. Crushing its way along it went bouncing from rock to rock uprooting trees and pulverising boulders. Over the bank of a deep lake it went, and with a tremendous splash lobbed into the water. There it rolled ovtr and over, the water gleaming from its polished sides, then it floated upright.

Slowly the louvre shutters in the top of the sphere opened, and presently there was a stirring of life within. There was a sound of whirring wheels and moving pinions, then a great shutter far above the water-line opened and a voyager poked his head out to gaze at the landscape of the new planet. It was Dey Vahlen surveying the scene of his triumph and it was a triumph indeed.

Rather than be the first to land the Big Man had chosen the role of the home-coming hero, and his was the last machine to arrive, all the others having landed safely. What a cheering; what a clicking of heels; what a waving of banners and shouting of slogans! A less formal:

Hail, hail, the Gang's all here.
What the hell do we care;
What the hell do we care

might have been more appropriate but the Big Boss was not to be denied the blaring of trumpets and bashing of drums.

Rayo the Right Bower poked his head out the porthole beside his Chief. He wanted his share of the limelight too. Presently inflated rubber boats were launched, a cable was made fast, and the great sphere dragged inshore. One by one the passengers landed none the worse for their voyage in space. In that great naval battle of Jutland where two mighty fleets had pounded each other for world supremacy there were men in the stokeholds who knew of the battle only in terms of pressure on the steam gauges they read. In the Kaiser's coal-fired ships at least there were those who knew of it only in shovel loads of carbon, and on this celestial voyage from a riven planet there were those who only knew that they had gone to sleep, perhaps snored, and woke up in Protonia. Among them were the head gangsters now lapping up the applause, and little they thought of the men who having steered them through the skies were about to die in that terrestrial power-house.

The landing spot had indeed been well-chosen, thanks to the super-telephoto camera and its inventor. It was a broad table-land closely resembling the well-watered lake strewn uplands of Tasmania with plenty of New Zealand's volcanic activity thrown in. Here were hot springs and roaring geysers, steaming mud ponds, and terraces of beautifully colored marble over which scalding waters flowed while sulphur fumes rose from vents in the ground. But the whole of the mesa or tableland was not volcanic and the well-grassed land around the lake shores was firm underfoot. Nature seemed to have provided this outlet for the fires below without making the surrounding country quaky. In the distance, sheer and lofty rose the white-mantled cone of a high volcano. From its summit plumes of smoke rose and lazily floated away in the breeze.

On the mesa warmed by those underground fires and fanned by the hot currents that flowed through that steam-laden air there was spring—a variable spring tempered by the chill that crept in occasionally from outer space where the feeble light of a distant Sun battled with the grey clouds. Here palm trees grew in abundance—tall, smooth-trunked, bushy-topped trees which reminded the exiles of the stately Royal Hawaiian palms—the grass was luxuriant and wild-flowers grew in profusion. Beyond it was the Hyperborean

Scythia—the land of night, of snow and ice and howling blizzards.

The voyagers had landed all their equipment safely and set to work vigorously.

In a short space of time they had laid the foundations of a settled and well-organised community. Light, heat and power were at hand and building materials were fairly plentiful. Days passed into weeks, weeks into months, and months into years while the city grew but neither Vahlen nor Rayo lived to see its completion. Each had promised the other that he would bump him off at the first opportunity and both had carried out the promise.

A day had been set aside for the naming of the city; a day when with all due ceremonial and solemnity it was to be dubbed Brand New Angmagsalik. With the pioneers' usual paucity of ideas to be found among all pioneers the heads chose to copy the name of a little island near Greenland.

Fortunately the little country called Wales had sunk into the Atlantic Ocean about a million years before that, so no one thought of naming it The New Nor'-Nor'-East Sosspan Fach. With Wales, too, had gone that troubled isle to the west of it and so, at last, the Boyne Water of mystic composition had been liquidated. When a Dutch King with Pope Innocent as an ally in the League of Augsburg had led an English army, equipped by the Papal treasury, across an Irish stream to defeat the French, he not only won a smashing Protestant victory which was celebrated with a Te Deum in St. Peters but stirred up so much mud, blood and sectarian confusion that it took a thousand fathoms of salt water to purge the place clean.

When neither of the head gangsters put in an appearance on the great day a search party went out after them. They were found lying on the grass a few yards from each other, each with body riddled with bullets from the machine-guns beside them.

After the big clean-up back in Greenland the gang had been rather loosely organised and much of its iron discipline had been relaxed in the joy and enthusiasm of building the new city. Another problem, too, had appeared. The voyagers from that frightful realm of chaos and mass murder had been childless, but now children began to appear, and it was with an eye to the future of a permanent society that Vahlen's successors set about some window dressing. Nothing was to be radically changed, but the new steerers were to have another "face." So the first of that long line of Czars which extended down the ages to Mark Hipper's nominal chief Terifa was set up. Having been installed with all due

pomp and ceremonial, Czar Marlek issued unlimited ukases but the men who wrote them sat around the table of the innermost Council and paid the All-powerful Autocrat his weekly salary in the inflated currency of the realm. For awhile this arrangement worked splendidly, but when the first big burst of constructive energy in which men and women had toiled joyfully in the big national workshops had died down the Innermost Council found good reason to remind itself of Vahlen's discovery that the other side of the globe was inhabited by a rather primitive people.

Who were these people? How did they live and how far had their culture advanced. These were questions to be answered. The Council decided to find out the answers but first it decided to shut the door against any danger of an adventurous dissipation of energies. Satisfied that the new globe was a suitable home and that the future of the race was assured they decided that there were to be no unnecessary space voyages. They did much the same thing as the government of Imperial Spain did when it pigeon-holed Prado's "Relacion"—the story of the discovery of New Guinea and Torres Straits. It decided that new discoveries might do more harm than good, and broke up Vahlen's space-ships. In their place a fleet of planes suitable to the Protonian atmosphere was built. Their range extended from pole to pole and their immediate objective was a photographic survey of the whole planet.

The completion of this task gave the Greenlanders a good general idea of their new globe. They decided that it was quite as attractive a place as the old Mudball had been though its configuration was quite different. One continental land mass, and one alone, stretched three-quarters of the way round the sub-planet, the most elevated part being on the newcomers' side. At the poles were icy seas but warm water lapped the shores of every part of the great continent.

In this general photographic survey and the hundreds of flights connected with it much had been learned about the people at the other end of the continent, especially about their architecture and public works. It was noticed that they had built in places cyclopean dams and aqueducts and some tall stone observatory towers. For this reason it was decided to name them Stonelanders, as with proper conservatism the newcomers had decided to retain the title of Greenlanders though the neighbouring country was obviously more fertile than their own.

The survey confirmed Vahlen's good judgment in landing on the more forbidding side of the continent. With the inventions and resources at their disposal it was easy for the Greenlanders to push out even into the icy wilderness and conquer it. Soon big fluorescent moons rivalling the luminosity of Jupiter's own lit up vast areas beyond the smoking mountain. The variability of climate provided a zest and energy which kept the people moving but on the other side there was a uniformity of temperature which induced lethargy. Unlike that of the earth the axis of Protonia stood at right angles to the plane of its orbit, which meant that there were no seasons. Eternal spring reigned in the realm of the Stonelanders, and but for the volcanic fires eternal winter would have reigned on the other side. But the modified winter was highly stimulating to mental and physical energy while the lazy spring was not.

The Stonelanders dwelt on the shores of a mighty river the placid waters of which flowed calmly along through a rainless region. On each bank for many miles water-wheels raised the life-giving stream and poured it out far and wide over the countryside. To the east stood a snow-capped mountain range from which a big tributary flowed down to the main stream. This tributary was dammed up in two places to form an upper and lower pool, the latter a vast lake. From these the water was gravitated down to the fields in huge aqueducts and masonry-lined canals.

It was apparent that no rain fell on that vast plain of Stonelandia and a curious consequence of this simple fact amazed the first aerial observers who observed it. The Stonelanders were absolutely naked. Here indeed was a contrast. Greenland society was divided into various strata indicated by the colouring of their upper garments. There were the Blackshirts, Brownshirts, Greenshirts, Blueshirts, Yellowshirts, Purpleshirts, Stripedshirts, Starchedshirts, Dirtyshirts, Couponshirts and so on, right down to the Sweatyshirts of the lowest caste, but here in that unknown land was the home of the None-at-all-Shirts. But if the native Protonians had no shirts it was more surprising to find that they also had no houses of any kind. They seemed to agree heartily with the Gypsies that the greatest enemy of the human race was the Demon Four-Walls-and-a-Door. Apart from the towers which seemed to have been built for observation purposes and the masonry of the dams, there was no structural work much less an enclosed space, and there were no boundary marks between the great irrigated fields. The sky was the universal tent. People slept wherever they felt inclined to, and it seemed that a Stonelander could sleep on a taut barbed wire or standing on one foot on the top of a narrow post if he wanted to, so there were no more beds than houses. Nor could the most powerful telescope discover any sign of a box or receptacle of any kind and food stored in the open seemed to last indefinitely. Nature had indeed been generous to Stonelandia and what Nature gave so lavishly the natives did not exert themselves to produce. Food was to be found all around them, and there seemed to be little need for preparing it. Wherever water touched that rich soil, luxuriant crops sprang up but the plain outside was by no means a sandy desert. It was covered with patchy grass among which stood out here and there big clumps of valvular cactus. These valvular cacti plants were shaped like gigantic candelabra, their tall stems towering 100 feet above the ground. Their strong tap roots struck keep down into the soil till they encountered the plentiful seepage which spread in all directions from the river. This they sucked up into their stems and at the top of each stem stood a valve and piston. From time to time these opened up and plentiful streams of fresh water gushed forth spraying the surrounding country with a gentle rain, so that at the feet of these cacti the grass was luxuriant and wild flowers grew in profusion.

This phenomenon was first observed by the famous pilot Delmont. He noted it very carefully and hovered for some time over a group of workmen who were digging up a decayed cactus. Thus he carefully photographed the big tap root and recorded the signs of abundant moisture in the soil below. Then with a natural color movie of the plant in action he made his report to the All-Highest. Czar Marlek was having a morning after the night before, and he lay abed reading a book of poems by the puritanical Longfellow. His crown lay on the dressing table with a shoe horn beside it. When Delmont presented his report he burst out:

"Monstrous! Monstrous! Do you mean to tell me that in all the realm of Botany there can be such a thing as a plant which instead of selfishly storing up sustenance for itself lavishly distributes it among its neighbours?"

"Sire, I have seen it with my own eyes."

"You need glasses, Belmont. Go get a prescription from the Court apothecary. The thing is not only contrary to all pious doctrine but it provides a scientific basis for social consciousness, co-operation, and mawkish sentimentalism. It strikes at the very root of good gangsterism and opportunism. Man, it is immoral—indecent!"

Belmont bowed low in humble obeisance before the autocrat, then replied:

"Say Bo! Who the hell do you think you are? Rajah of Protonia or Mayor of Woop Woop? Admitting that we're on a new planet, one of Jupiter's four fantastic moons, in fact, are we to assume that everything does and goes, or is and be's, just as it used to was?"

"Blow me down!" exclaimed the Czar looking at the split seat of the navy uniform he had tried to climb into the evening before. "Blow me down, sky sailor, don't you think this story of Longfellow's is frightfully relevant?

"How and why?" asked Belmont.

"It is called 'The Discoverer of the North Cape.' Get an earful of this:

Three days we sailed to the northward,
Three days without a night.
Round in a fiery ring
Went the great sun, O king,
With red and lurid light.

Here Alfred, King of the Saxons
Lifted his eyes from the book,
Eyeing the bearded Northman
With strange and puzzled look.

But Othere the old sea captain
He neither spoke nor stirred
Till the king took up his pen
Started writing again
And set down every word.

"With that precedent, as the lawyers say, I pardon you this time, Belmont, but don't let it occur again."

"Sure! Sure!" said Belmont salaaming lowly, "and I solemnly promise your Majesty that the next time I find a valvular candelabrum cactus it will have your majesty's latest policy speech sprouting on every stem of it."

* * *

Belmont made a great many flights after that, but it was not until the actual conquest of Stonelandia began that the adventurous earth-men learned all about their strange neighbours. Having spied out the land from above they sent out ground parties to find means for a surface approach. One of these parties having found a low-level pass across a steep mountain range which had baffled their efforts for some time descended on the other side to find a lake of moderate proportions nestling among low hills in lightly-wooded country. They were surprised to find that a volume of water quite out of proportion to the apparent size of the pool flowed

out through a cleft on the other side and rushed down-hill in foaming cascades. In the distance towered a high snow-clad volcano from whose summit floated a wisp of smoke. Surmising some underground spring and eager to fathom the lake they were about to descend the hollow when suddenly the ground seemed to roll away from beneath their feet, tumbling them on the ground. Then with a terrific bellow as if a thousand wild beasts had roared in chorus the smoking cone of the volcano belched forth a column of fire, smoke and steam. Columns of red hot stones and cinders were hurled high into the air and as the terrified travellers rose to their feet they saw the white mantle of snow vanish completely. In its place stood the black and scorching sides of that fiery cone, and with a terrific roar a billowing mass of boiling water rushed down the mountain side sweeping everything before it. Down came rocks and boulders, whole cliffs vanished and a huge swath was cut through the crashing forest at the foot of the volcano. Fleeing in terror the explorers reached higher ground just as that ocean of suddenly freed water swept into the placid lake raising it in a moment by some hundreds of feet and deluging the spot where they had stood.

Out through the narrow ravine on the other side the flood poured and went surging and crashing into the valley below. All day and late into the night the waters continued to rage. The night was cold in spite of the appalling beacon that flamed in the skies above, and the explorers huddled around their fire on the hill top while the volcano bellowed and roared and red-hot rocks fell in the forest around them.

Next morning they decided to follow the course of the waters assuming that the flow would lead to the main stream of a big river—a river fed no doubt by the regular and less spectacular melting of snows. They were not disappointed and soon found themselves on the bank of a broad stream. Hollowing out canoes from logs of suitable timber they floated down through forests so dense that no human being could penetrate them. Tall, straight-stemmed hardwood trees grew almost trunk to trunk or were woven together by great masses of clinging prickly vines. Presently the river spread out into vast swamps but still the forest was dense, the trees rising out of the drowned soil and forming a gloomy canopy overhead. Swarms of monkeys chattered in the branches, and bright-plumaged birds dashed in and out with raucous cries, but there was no sign of human life.

For many days they rowed on, occasionally shooting a bird or a monkey for food, then suddenly the river narrowed and the banks rose cliff-like and sheer. The stream flowed

placidly along, but when curiosity prompted them to fathom it they found it to be 200 feet deep. Still waters were flowing deep and the current was carrying them steadily forward till at last their frail barks were pushed far out into the waters of a broad lake. The forest had vanished and at the lake entrance stood a big hill with boulder-strewn top. That hill was well enough known to them, having been photographed many times from above. They landed, built a cairn, and chiselled names and dates on a rock wall.

From the other side of the lake the stream Montegaro flowed out and along for thousands of miles unbroken by fall or cascade right through the heart of the Stonelanders' country.

The gateway was now open and it was now easy for Czar Marlek's legions to enter by the mountain pass and find easy mass transport on that river highway.

CHAPTER SIXTEEN.

CONQUEST.

The opening of the river highway stirred the Protonian Innermost Council to action.

A road builders' battalion soon widened the trail, laid down a road and paved it. Enormous motor wagons rolled along it to establish a depot at the head of navigation. An army with amphibian tanks and all the latest war gear followed. Ships in pre-fabricated sections were dragged along the highway, put together at the riverside, and launched in deep water, and soon a fleet was steaming down the Montegaro right into the heart of Stonelandia. It took the aborigines completely by surprise. The high level aerial flights had been unnoticed, and they were all unaware of the fact that enemies were preparing to descend upon their peaceful world.

It would have made little difference if they had known and been prepared. The superior equipment of the invaders could have easily overwhelmed any opposition, but the natives lacked a war organisation of any kind. The art of fighting had died out when the original tribes had dropped their nomadic habits and settled down in a peaceful confederation to make the best of their new home.

Finding themselves in possession of the whole country without any resistance the conquerors were a little puzzled

at first. Czar Marlek's advisers had already decided to treat the natives like common cattle and completely enslave them, but cattle are a valuable asset sometimes. No stock-owner welcomes a general epidemic when stock prices are high and the conquerors decided on a complete stock-taking. No doubt, if Marlek's followers had known all that they wished to know about the aborigines and their country they would have treated them with the same ruthlessness as is usually dealt out to conquered peoples, but being in an entirely new world, and knowing that damage once done could never be repaired, they decided to cause as little disturbance as possible till they had completed their investigations. Meanwhile they contented themselves with taking all power into their own hands and grabbing the best of everything that they could lay their hands on. Then they chose a staff of scientists to live among the natives, learn their language, study their ways and find out all that they could about the country.

Whatever cruelties the conquerors inflicted later future generations had reason to be thankful for the detailed information concerning the Stonelanders and their ways which was compiled in the first years of the conquest. Knowing what they wanted and not being full of rank superstition like the Spanish invaders of Mexico, the Greenlanders did not indulge in wholesale destruction of native records.

It appeared that Stonelandia had been established by a federation of nomadic tribes which had been terrified by some obscure disaster—probably the falling of a huge meteor—into fleeing from their original habitat. Bound by their common fear they had fled for many days together; then one day found themselves in this great fertile plain. Here food was to be had without effort and with no thought of parcelling out the land they had simply camped beside the big river and lived in peace.

Like all savages these people had their tribal council and had there betn a supply problem the council would no doubt have tussled with it in its own primitive way, but there was no such question. Fish in the river, fat yams which made a very sustaining porridge, birds in the trees, fruits, nuts and vegetables in abundance and a climate that made clothes and houses superfluous—what more could simple savages want? Generation followed generation and the population increased. Then the land was put under cultivation easily providing more than was required. The surplus, if not perishable, was stored in the open and was free to all.

Now, according to all the rules of the game, as laid down by the pundits and written in the books, a society so con-

stituted should have rotted right away or stirred itself up with wars, strife, and the ambitions of greedy men. Or it should at least have died out through inbreeding, but it refused to do any of those things. Instead it had moved right along with a fine series of inventions and discoveries. Nets to catch fish were woven from reeds, then baskets were made from the same material. Some of the women found that by covering these baskets with clay and baking it hard they could be made to carry water. Then the fashioning and baking were done without the wicker work and all kinds of pots, pans and vessels were made. Rough stone axes were fashioned and with these logs were hollowed out making canoes with which to travel on the river. Bows and arrows were fashioned to shoot birds and fire-hardened sticks used to dig for yams. In due course came the greatest invention of all, the production of an alloy equal to the best steel. Like the smelting of iron ore on earth it was a freak discovery which might have been passed over for another thousand years and it came about this way. As the Greenlanders discovered, there were ninety-six elements on Protonia, which was only four more than were to be found on earth. Moreover the relative abundance of these elements was not the same. The old Earth's most plentiful metals were aluminium and iron, but aluminium was much rarer on Protonia and copper almost as abundant as iron.

Next to copper the commonest metal was potencium, unknown on Earth and possessing remarkable qualities. With a melting point almost as low as that of lead it had the hardening qualities of beryllium and was generally found in association with copper so that it often happened that through volcanic action an alloy of copper-potencium was found. Where this alloy had been formed into thin strips or plates it could be sharpened to a razor-like edge and one day a group of inquisitive youngsters made the experiment of alloying the two metals to form an axe-head. It worked, and the axe-head became the object of admiration of the countryside. After that forges turned out a variety of tools from this easily-made alloy. The Greenlanders were no less astonished than the natives themselves when they first saw some of these instruments, for they had the appearance of shining gold along with the hardness and sharpness of best steel. Saws were now easily made and one day while a log was being rolled along to the water's edge a playful youngster sawed off the smooth end to make a hoop. The remarkable performances of this disk, as it was trundled along the flat ground in the game which followed, attracted much attention, and wheels for wheelbarrows were soon in common use.

To anyone who has seen the colossal pyramids and buildings of Mexico and Peru it may seem strange that those "grand barbarians," the aborigines of those countries, were ignorant of the uses of the wheel or pulley. Yet such appears to have been the case, and the Mexicans were unaided by any kind of beast of burden, while the Peruvians had only that diminutive camel the llama. These people, notwithstanding much loose talk about their "civilisation," were barbarians who had not reached the crowning achievement of the barbaric period—the smelting of iron. As for the art of writing which marks the dawn of civilisation (inasmuch as civilisation implies history and without written records there can be no history) the Mexicans had a crude system of picture writing and the Peruvians had none.

The Stonelanders with their protencium-copper tools had built dams and aqueducts and had developed the art of writing by conventional signs painted on woven cloth or paper. So that in a technical sense they could be called civilised, and as they had liquidated the system of blood brotherhood, making everyone a citizen instead of a clansman they were on the level of the Greeks of Plato's day and that meant that they were far above the Babylonians who, as the Mammurabi code clearly shows, had not risen above tribal law and the blood feud.

And in weird Stonelandia the only beasts were fowl!

Like North America before Columbus it did not possess even a goat or a donkey to pull a load. But that disadvantage had been largely overcome by the development of a species of enormous geese. These birds were much larger than any terrestrial flying thing with the exception of those of the prehistoric pterodactyls—those horripilating nightmares with the wing spread of a small aeroplane, and teeth like marlin spikes. Quite unlike these the "gapooses" (as the Stonelanders called them) were not in the least fearsome. Originally they were just like the Earth-born geese or muscovy ducks, but a rare stroke of genius had prompted the natives to increase their size by selective breeding so that they could fly fast with considerable loads. Being tame, docile and intelligent they were naturally suited for this purpose and by the process of artificial selection for many generations they acquired bodies as large as mules with great wingspread and powers of endurance.

With the help of these fliers a "gapoose office" was organised with regular deliveries to the remotest parts. Carrying small packages the birds would fly alone going to destinations as directed or delivering letters with their beaks. They would even carry small children on their backs for

short distances, but for mass deliveries there were the "gapoosa mote" and the "gapoosa glide." "The gapoosa mote" was a two-ton vehicle drawn by a team of big birds harnessed in a long line and flying close to the ground. The "gapoosa glide" was really an aeroplane for which the same kind of team supplied the motive power.

Some attempt had been made to use these intelligent birds for delivering birthday greetings with musical accompaniment, but their voices were raucous and their most musical note something like a donkey's bray, so that they were more suitable for razzing politicians than delivering happy birthday greetings.

Now all these things were revealed to Nayella Gaba, Queen of the interplanetary underworld as she reclined in Mark Hipper's great space-ship, and they were also tabulated, ticked off and indexed by the indefatigable staff of that great scientific specialist and investigator Don Diego Bejabers y Begorra.

Don Diego had migrated to Greenland after the thaw so still possessed that sunny southern temperament though in a state of mild refrigeration. When he had gathered all the facts about that strange country called Stonelandia he flew off in great excitement to lay them before Czar Marlek.

Late in the morning he found the Czar emulating Berangier's ale-house monarch:

> There was a king in Yvetot
> Of whom renown hath little said;
> He let all thoughts of glory go
> And dawdled all his days in bed.

His big toe was sticking out from under the bed-clothes when Don Diego broke in upon him and the poor Czar awoke with a howl as the savant took a firm grip upon it. He promptly donged the intruder in the eye, and Don Diego regaining his composure solemnly presented his report.

He concluded it by observing:

"Your Majesty, may I draw your attention to the evil consequences that may flow from placing facts which are without precedent or parallel in human history before the common people of our own realm—the new Angmagsalik."

"But must we have an earthly precedent for everything that happens on Protonia, Don Diego?" asked the Czar. "Suppose we find a spot on this new Jovian globe of ours where stones fly upward and rivers run uphill. Once we have definitely established that these things really do happen our

business as scientists should be to find out *why* they happen."

"I very much regret to say," said Don Diego Bejabers y Begorra, with proper professional dignity, "that your Majesty's scientific ideas are mid-Victorian."

"Don't make it too hot, Bejabbers," said the All Highest. "I may be a few million years out of date, but not quite a billion. No, not a billion, Begorra."

"Not quite," conceded Don Diego, "I confess that the late queen *is* a bit late according to our chronology, but I regret to say that you have that old-fashioned prejudice for truth as truth. In Greenland, just before the Al Capone Hegira we changed all that. To-day it is well-established, by all the rules of good gangsterism, that truth like all things must be disciplined and made to serve higher interests."

"As a female her place should be in the home," suggested the Czar.

"Begorra, no, Your Serene Highness. Truth in Angmagsalik should be without a home. By all the rules of the game she is the last person in the world with whom the common people should be acquainted."

"You interest me, Don Diego Bejabers y Begorra," said the Czar rolling out of bed and flopping into an easy chair. "Have a cigar—a good one—and cut out the Majesty stuff. You've got the edge on me, Don. You're a man of education and scientific achievements, and I'm just a 'face,' shop-window, or mouthpiece for a bunch of post-cataclysmic gangsters who fear more than any good Christians ever feared all the fiends of hell the simple thing you have just mentioned."

"You mean—"

"The Truth, Don Diego and likewise Bejabers and Begorra. I always did admire that pretty Spanish custom which admits the right of a mother to hand down her own name, as well as her husband's, to her children."

"Bah, you're becoming mushy and sentimental."

"Oh, sure, and you'll fire me or get The Lads to do it. You want a real caveman, a Czar of blood and iron."

"You said it, Marly, old sport—a Czar of blood and iron."

"Sure, sure, and he'll grow more legs on his belly than a centipede from crawling to the lords of *coal and iron*, the Sultans of Sulphuric Acid, and the panjandrums of Potash."

Don Diega leaned back in his chair and blew a cloud of smoke to the ceiling. The mild and soothing fragrance of that super-select extra-terrestrial Havana was beginning to work. He caught himself almost thinking that the Czar

wasn't such a bad chap after all, and just couldn't help being a trans-lunar racketeers' mouthpiece, but business was business, and the Stonelandia problem had to be liquidated somehow.

"We are agreed, friend Marlek," he said, "that in Angmagsalik nothing could be more terrible than contact between the common herd and truth."

"You should say," corrected the All-Highest, "that kind of truth which insists on being truthful and presenting unpleasant facts in an unpleasant way. I often regret, Bejabers, that with all our scientific achievements we have not yet discovered a new kind of Truth. It has been said that besides the old-fashioned Euclid there are many forms of geometry from which you may prove anything once your axioms are accepted. For instance if you insist that a straight line shall always be straight you can keep it that way, but if you once admit even the slightest curve, the infinite distances of the universe will magnify that curve till your straight line is tied in knots and comes back to lassoo you. Why can't we work out some kind of four-dimensional Truth, whereby it can be proved to the profound joy of everybody that a general massacre like that of Urbo Delfina, conducted by a bunch of super-gangsters, is in the higher interests of the masses who yearn to be led by supermen?"

"But we solved the Delfina problem all right," insisted Don Diego. "Now about this Stonelandia. A most incredible and impossible country."

"Quite like the little boy's elephant, Begorra. 'There ain't no such animal!' eh? What do you find most incredible? Their gapoose office and the gapoosamotes? Or is there remarkable progress in that lazy climate?"

"Not quite, not quite that," said the Don, "but consider their lack of a Great Man. Why their affairs are run by powwows in an aborigines tribal council. Then consider the material progress they have made without a Great Man—like you, for instance, Marly. Dare we tell our own faithful heel-clickers that story? Then consider that they dwell in fat peace in a mild climate and totally lack the stimulating influence of war and invasion. I submit, Brother Marlek, that that is entirely without precedent."

"Not entirely, Don Diego," replied the All-Highest. "Bejabers an' Begorra, I don't think you're quite right there. Egypt, the cradle of human civilisation was, I believe, just as much a freak.'

"Incredible!"

"Not at all. Consider the Nile. The one and only great river of the temperate zone flowing north; flowing, too, through a flat and treeless country enormously fertile and wide open for the plough. A region with a mild and uniform climate, isolated and protected by desert ramparts from foreign foes. Egypt secure and peaceful, developed all those arts which lifted man out of barbarism on to the stream of civilisation. To Egypt belongs the discovery—a freak discovery a thousand years ahead of its time—of the art of smelting iron. That was the crowning achievement of the long and interesting period of barbarism, and the mastery of the art of writing, which opened the period of written history or civilisation, belongs to Egypt, too. Chiselled in stone beside the waters of the placid Nile the world's first accurate date was recorded. The seasonal floodings of the Nile sent men exploring the realms of astronomy and mathematics and its reeds made the world's first paper."

"Rank heresy, Marlek! The Cult of the Supreme Angmagsalik Race lays it down that only supermen can lead their baser fellows out of darkness into light."

"By blasting daylight through 'em," interposed Marlek.

Don Diego ignored the interruption and went on:

"You on the contrary assert that Stone Age troglodytes were changed into civilised men by the material conditions of the Nile Valley, and the arts and crafts that arose there."

"And that to you is heresy, Don Diego, but are we not quite at liberty to discuss the facts between ourselves? I repeat that Egypt was the mother of civilisation, and how was that civilisation spread? Across and along the calm waters of that salt water lake the Mediterranean—the greatest freak of the whole planet—a vast trough chiselled out by the thawing glaciers of the Great Ice Age. You speak of Stonelandia as incredible. Bah! it is commonplace compared with Egypt."

" A precedent, Marlek. I grant you Egypt as a precedent which throws some slight cloak of respectability over the nudeness of these weird people, but it can't save them. In the immortal words of Il Duce, 'Abyssinia must die!' "

"Or be put into harness to draw the Greenlanders' waggon. I agree friend Don Diego. By the way, have these degraded people a religion?"

"Certainly sire. I invented it for them."

"Wait a moment! Wait a moment!" exclaimed the Czar impatiently. "You don't have to lie to me."

"In truth, then, they had no Established Church, but I was so disgusted that I made one for them. I have written down the whole community as Hypothesians of the One True Church and of course issued a ukase in your name establishing that church."

"As a matter of courtesy you might have consulted me before publishing it."

"Sorry, old man, but I got the Innermost Council on the long-distance 'phone and you know that by ancient tradition and custom established from time immemorial—"

"Yeah! Seeing we're on a new planet and just blown in five minutes ago."

"By ancient custom—ahem"—cantinued the Don, "the Innermost Council doesn't allow you to read your ukases before they're in the newspapers. I couldn't let you see it, though as a pal I should have liked very much to have done so."

"O sure, sure! Bejabbers an' Begorra Don Diego, there never was a Czar since history began who wasn't a slave himself. Make a note of that, too, you slimy-tongued grafter, and put it down to 'custom from time immemorial.' Then what about these Hypothesians?"

"Well, it was this way. Very few people in Stonelandia showed any desire to explain things which obviously couldn't be explained. One guess was as good as another, and it was like that with the origin of the universe which, of course, was quite outside the range of Stonelandia's science."

"But surely they tried to explain it, Diego?"

"Most of them didn't. They had an axiom, 'We'll see Fly do it,' which meant that they'd leave it for the wise men to crack their heads on, and just went on chewing bananas. But the wise men had their hypotheses. Number One said that it was all the work of a great Superman. Number two said he was a Democrat, and it must be the work of many Supermen working together; Number Three said that the whole universe was a living thing and Protonia was one of its whiskers. Number Four said that he didn't know and wanted more information on the subject, and lastly, Number Five said that there was enough evidence to prove 'beyond reasonable doubt,' as the judges say, that no such thing as the others claimed to exist could possibly exist, and that Number Four was just a cold-footer who hadn't the courage to say so.

"Well the folks listened, got interested, and decided to put up places where these pundits could talk it out. No one dared to build a house, or even a four walled enclosure in Stonelandia so they put up three walled places with open fronts side by side, and the people could walk along from stall to stall listening to the oratory and eating peanuts, and everyone was happy about it."

"Did no one ever think of building his own josshouse elsewhere?" asked Marlek.

"That would have been rank sectarianism indeed. It would have set those Redskins on the warpath trundling their war-whoops down the avenue."

"So there was unity of location with divergence of views."

"Exactly, Marly. So what does I do? I proclaims the stalls to be the One and Only True Hypothesian Church, and by Order of the Czar, Head of all the Faithful, I builds me front walls on all the stalls and puts doors on 'em."

"How did it work?"

"Splendid, but the mob wouldn't enter the doors. Why, you couldn't get those house-hating buzzards to go into a tent. Result, they left 'em all empty, and those big horse-bodied gapooses parked in them. I am convinced, Marly, that those people should be wiped. 'Deltnda es Carthago'."

"Who said that, Begorra?"

"One of our most eminent ancestors, a crook named Cato, who, I believe, was a paid agent of that same Carthage against which he fulminated. You see, his own name stank so much on account of his practice of selling his old and infirm slaves that the Roman patricians must have thought kindly of anything that the old rotter denounced."

"You dig up ancient history, Don Diego. Of what use is it?"

"Friend Marly, history is like a chromium steel chain. It doesn't rust. Rub away the dirt and the first link is as bright as the last. Let me tell you just a few things about that same Carthage and its final siege. In the first place it was a Soviet Republic 2000 years before Lenin was born. It was run co-operatively by freed slaves who set up war workshops in which men and women toiled side by side in regular shifts all round the clock. That was twenty centuries before Britain got the idea. And it licked Rome hollow till its own gangsters sold it out. Phineas Hamilcar beat Quisling to the punch by a tick under twenty-one centuries, and the bunch which betrayed the Carthaginian fleet which had Rome at its mercy would have astonished Admiral Darlan."

"Well, you need not concern yourself further about the Stonelanders, Brother Don Diego. The Innermost Council has already decided that they are to be the horses for our chariot. In fact, that was Vahlen's idea in coming here in the first place."

"Good; then I leave my report in your hands, Brother Marlek. Pass it on to the Innermost Council when you've read it."

"Thanks for calling, Don. Delighted to have met you, Bejabers y Begorra."

"Don't mention it, pal. Good-bye!"

* * *

As Czar Marlek had said, the Innermost Council had already decided the fate of Stonelandia. Its history remained a sealed book to the Angmagsalik masses. The army descended upon it, driving the people from the open plain with its mild climate on to the top of the great wind-swept plateau where vast deposits of potencium had been located by the inquisitive invaders. Here the unfortunate aborigines were set to work in the mines under armed overseers. Thousands perished, and many generations came and went before a new race of slaves had been evolved able to toil on that terrible plateau, like the Indians of Bolivia who carry loads where strangers can hardly breathe. For on that small planet the air became thin even at the height of a few thousand feet. Thousands of armed guards perished, too, in spite of their oxygen masks and constant changing of guards by aeroplane. Eventually a race of super-slaves was evolved also, through the mating of guards and aborigines. They formed a link between the grubbing miners and the conquering Greenlanders on the other side of Protonia.

Czar Marlek soon went the way of all good gangsters, being bumped off because he insisted on reading one of his own ukases before publication. Don Diego Bejabers and Begorra succeeded him.

And what happened to Don Diego—savant, shyster and diplomat?

He, too, was bumped—*Bejabers y Begorra!!!*

Precedent, thus established, soon became "ancient custom from time immemorial," so that every Czar had to die with his boots on. After the lapse of a certain period, he was "topped off" by the common hangman, and if he managed to die otherwise, his body was hung in irons so that the gallows might not be cheated.

Queer doings, perhaps? But was not this the land of superstellar gangsters, and was it not the realm of Jupiter with his nine moons? And if, as the simple folk said, *one* moon could send people batty, what might not be expected of Jove himself with his nine moons, two of them colossal fellows bigger than the planet Mercury?

Or was it true, as Marlek had said, that there never was a Czar who was not a slave himself, and that, too, was "ancient custom from time immemorial"?

Years rolled on, and there came to the chair of real authority—the leadership of the Innermost Council—one

Mark Hipper, with the usual puppet, in this case the Czar Terifa.

But with his own advent on the scene the Protonian pirate chief felt that he had carried the story far enough, and enlightened his fair bride sufficiently as to the general set-up. He switched off the psychological ray, and Naya returned to contemporary reality beside her beloved gangster chief.

CHAPTER SEVENTEEN.

CHICKENS FLY HOME.

"So that finishes your voyage into the realms of the past, my charming lady," said Mark Hipper pompously.

"Thanks for the buggy ride," answered Naya. "So that's Gangsterland, past and present!"

"How do you like it?"

"Not bad. I was thinking of bumping off Terifa so that you and I could be Czar and Czarina of the galaxy, but I don't like your 'ancient custom from time immemorial.'"

"Well, you never know your luck as an astronaut."

"A which? Say, are you hinting I'm a bad woman?"

"No. I said 'naut,' not 'naughty.' That means a voyager in starry realms."

"Oh, sure!"

"Besides, you *are* a bad woman and lot more also. Now you're my queen and I like you that way."

"Where to now?"

"Back to Protonia. Make yourself comfy. It should really take a year or two, you know."

"A year or two! In this crummy old bus! Suffering grandmothers!"

"Oh, don't let that worry you. Didn't they tell you in Venusia that we live to a ripe old age in interstellar space? You see, it takes a long time to buzz from Venusia to Jupiter, even at 2000 m.p.h., so we had to adjust our life period to our new environment and become Methusalehs."

"Me married to an old man. Gosh!"

"Nonsense, I'm only a baby compared with you, Naya. You know you're millions of years older."

"Well, wouldn't it tear you, Big Boy?"

"Oh, it's quite all right," said Mark. "You won't notice the lapse of time. You see, we've gone off the time standard."

"Gone off the time standard? Say, what in starry space does that mean?"

"You see, darling Naya, we've simply adopted the money-changers' slang of your own period. They got 'off the gold standard' and we've gone off the time standard."

"How?"

"You see, they didn't just inflate the currency in those days. They didn't even admit that all paper money is merely a promise to pay in real value of some kind and that, as Germany proved, a government's I.O.U. may be just as rotten as any spieler's. Oh, no. Not at all, not at all! That would have been vulgar! They simply adjusted things so that you could take a gold sovereign into any bank in Australia and buy two and a half pound notes for it. And the English pound note, worth, say, fifteen shillings in gold, became 'sterling' (!). That word, my dear, means honest value. So that one honest value of fifteen shillings was equal to another honest value of twenty shillings. You follow the reasoning closely?"

"Oh, sure. I knew a grocery store guy who got off the avoirdupois standard by making a pound of sugar out of fourteen ounces. I met him in the big house at Long Bay."

"Now, my darling Naya, that's just how we mastered the problem of touring interstellar space at a paltry 2000 miles an hour. You might nose around from planet to planet at that plodding speed, but when it comes to interstellar space even the speed of light is painfully slow. There are stars so far away that it takes a ray of light 1000 years to travel from them to the sun. How could we find time to explore such appalling distances? The problem baffled all our scientists and was solved at last not by mathematicians but by a historian delving in forgotten archives."

"What did he find?"

"The story of how your financiers and politicians got 'off the gold standard.' By an amazing stroke of genius he decided to apply the same principle to stellar navigation. So we got so far away from the cramping bonds of the time standard that one of our years is now equal to 1,000,000 of yours. Now, if we want to flit to Alpha Centauri, Sirius or Canopus, we just give her the gas and flip over there in a few minutes—Protonian reckoning."

"So I better hurry up then. Maybe we'll be over the palace before I can powder my nose."

"Right, and here we are, Naya," said Mark a moment later—Protonian reckoning. "Turn on the heat, Bill."

"Who you bumping off now, gangster?" asked Naya.

"No. I don't mean it that way, precious. You see, we're passing through the ionic layer of the upper atmosphere. That is a sort of ceiling with a high temperature. It's really a kind of battle-ground between the atoms of sunlight and those of the upper air. Every planet has it, and on the old mudball before the lunar dust-up, it served to keep radio waves from rushing out into space. Here in Protonia it serves an even more vital purpose."

"Keeps the rain out, what!"

"No, Dame Flippancy, it keeps the rain *in*. In other words, it keeps the atmosphere itself from flying into space. You see, Protonia being only a small planet, or satellite, lacks the gravitational pull necessary to hold a dense atmosphere. Without that outer skin, as you'd call it, most of the air would rush off into space. Thanks to this ionic layer, Protonia holds a much denser atmosphere than would otherwise be possible. Now put your ear to the audiophone."

Naya listened, and presently heard a loud "Pong, pong!" like the sound of a hammer bursting through the skin of a big drum.

"My hat! What's that?" she said.

"That, fair lady, is the sound of our sphere piercing the ionic layer. We're through now, and it has already closed behind us. No rubber-coated petrol tank was ever so hole-proof as that ionic layer is meteor-proof. We had to turn on the magnetic force—or 'heat' as you heard me call it—to counteract that ionic activity, and if we hadn't slowed up to pass into the atmosphere we'd all be burned up now by its friction against the sphere."

"My, what a narrow escape from being a grilled steak."

"Yes, precious. The Queen of Protonia must *not* be a grilled steak. But let me take you on an easy tour of the world before we land. Slow motion, please, chauffeur."

"We are now hovering over the Great Plateau of Upper Stonelandia. Formerly this inferior race which you see grubbing here led a lazy and easy life on that vast level plain beside that wide sluggish river. We've changed all that now. Here in these high mountains they now lead lives of frugal thrift and industry, digging out the ores of that precious metal potencium on which the whole life of our world is based. Those simple barbarians didn't know one-tenth of its possibilities. Putting it briefly: 'No potencium, no Protonia'."

"How do you keep the blighters' noses to the grindstone?" asked Naya.

"That, my dear, has of late years become a big problem. Originally we placed drivers over them, but they merged into the herd mass as time went on."

"Supermen, sez you!" observed Naya, "but the herd swallowed them."

"They did, alas, and with this infusion of new blood the natives became a bigger nuisance than ever. Been giving us quite a lot of trouble lately. You see, they're wide awake now to this potencium monopoly that they hold over us."

"Then why not bump 'em off and put in a new lot? Remember Delfina?"

"Sure, we remember Delfina," said Mark.

"Then why not another good purge?"

"Objection, please, lady, as Charlie Chan would say. You see, these people have been acclimatised for centuries to conditions that no other race could endure. You know what the poet said about 'a paradox—a paradox!' "

"What's that?"

"An apparently absurd truth. These Stonelanders are now our masters and our slaves at the same time. We depend on them for life itself, and if we wiped them we'd have to sacrifice almost a whole generation of our own people to replace them."

"And why not?" asked Naya with charming indifference.

"Something like that may have to be done presently. I have a plan to divide Angmagsalik into three sections: an army of fanatics which will re-conquer Stonelandia and utterly exterminate its people, a slave herd which will be driven under the army's lash to replace the destroyed slaves in the potencium mines, and a third section to keep on producing in Angmagsalik. Sections one and two will make up ninety per cent. of our present Greenlanders. The third section, not more than ten per cent., including ourselves, will tend the machines of Angmagsalik and be able to turn out all that is necessary in exchange for the potencium output."

"The ninety per cent. will die like flies in that climate."

"Of course they will," said Hipper. "I reckon that only one in nine will survive, which will equalise Stonelandia's population with that of the chosen few in Angmagsalik."

"You've got brains, Hipper—and a big heart. Say, what's this joint?"

"That's not a joint; that's a palace—*the* palace."

"Yes," said Naya simply. Even her hard-boiled realism was dazzled by what she saw.

They were now over the New Angmagsalik—that scientifically developed though less naturally favoured home of the dominant race of Protonia—and below them spread out a vast rolling plain teeming with life and throbbing with energy.

Vahlen's steam-heated paradise had been so enlarged artificially that it formed but a small portion of the inhabited country. A maze of cities linked by bitumen roads, railways and air services spread out over the countryside. Naya noted with amazement that the railways combined the principles of both land and air flight. They were built on the overhead principle, the carriages being suspended from their wheels which ran in grooves overhead. No train consisted of more than two, close-coupled, streamlined carriages, and these were pushed along by stern air-screws whirring at terrific speed.

Above all, and dominating the entire scene in its splendour and glorified isolation, stood the tall palace home of Hipper and the satellite Czar. Its base was a broad, low, rocky hill in the middle of a level plain, and it towered above this raised foundation 2000 feet into the air. At the summit stood a colossal statue of Vahlen—pioneer and gangster.

Like a slender obelisk it stood, smooth-sided and beautifully proportioned. Its walls were largely of glass bricks inset with gaily-coloured windows set in shining chromium frames or decked with jewels, but what took Naya's breath away was the sight of the gold plating which covered the framework of the building. Gold, it seemed, shining, burnished gold, but it was really potencium-copper with a hundred times the lasting, wearing quality of gold.

Naya, carried away by her enthusiasm, burst out with a wild cry:

"Glory be to gangsterism! How many suckers did you bump off for that one, Mark?"

Nayella was no philosopher. No one had told her that the pyramids of Egypt were monuments to the utter degradation and misery of the pharaonic fellaheen, but her head was clear and cool; her big contralto voice was as a sounding bell, and the direct shrewdness of her summing up fairly knocked the pirate endways. He had sought to daze his bride with this spectacular show. Now it was his turn to be dazed.

"Keep your mouth shut, you vixen," he growled. "We might bump you off, too."

"And what a sport I'd be if I whined after having lived millions of years," she flung back. "Can't the Queen of Protonia tell the truth to her boy friend?"

"Certainly," said the pirate, regaining his composure, "but *only* to her boy friend. If I catch you saying such things

to the cook or the chauffeur, much as I love you, Naya, it'll be just too bad."

They spiralled down and landed, not as a taxi-ing plane lands on a concrete runway, but straight down on a cushioned surface where they came to a stop with an almost imperceptible bump. The big door opened automatically, and a gangway was pushed over from the platform of a tall tower. Descending the elevator, they emerged on to a spacious lawn, and there were gathered all the notables of Protonia, including all the leaders of the army, navy and air force.

Czar Terifa was the first to greet them, and Naya noted with interest that he was an under-sized nervy little fellow who would have been happier playing a big drum in a band rather than playing Czar. He welcomed Naya to her new planetary home, and formally placed the hospitality of the palace at her disposal.

Naya knew that that was hers already, but she thanked him in a soft flow of nice words:

> Mia kara Tsaro kay popolo: Goyega estas al mi eniri chi tiu nova mondo kun mia aminda Hipper,

which means:

> My dear Czar and people: I'm delighted to arrive in this new world with my beloved Hipper.

And when all the assembled majors and minors of Angmagsalik heard that big, soft, deep, contralto voice of hers chiming out like a cathedral bell, and heard her speaking their own language too, they went into raptures.

"Bang!" went the big guns in salute; "Pom, pom!" went the brass trombones; "Boom, boom!" the big drums; "Toodle-oodle!' the oboes; and "Hip, hip, hurroar and hooray!" bawled the Hoboes.

There were thousands of the latter, and it brought tears to Naya's eyes to see them all. Never since she had left the old mudball in the super-spatial Time-chariot had she seen such a sight. Nowhere in Venusia, with its gardens of teeming abundance, had she seen an ill-clad or hungry being, but here—this, ah this, was home!

With a rush of joyous memory she recalled the day she stood on the big aerodrome in Upper New York State chatting to the young aviator, Van Buren. Only a few weeks before, he and an older pilot had taken off from that same field in a stratosphere balloon with a closed gondola and oxygen masks. On reaching the stratosphere, they were blown right round the planet by a terrific storm, and landed by parachute in the dead of night. They came down not

far from a big dock, where, by the light of kerosene flares, men were chipping and scraping the bottom of a big liner.

"Where do you think we are?" asked Van Buren, who had never been outside of New York State in his life. Just then there came across the water the chorus of the painters and dockers as they chanted over and over again in mournful tones:

"Sahib he no bloody good! Sahib he no bloody good!!

Sahib he no bloody good!!!"

The elder pilot listened carefully, then answered:

"Can't be exact, buddy, but we're sure somewhere between Shanghai and Suez."

CHAPTER EIGHTEEN.

SPIES IN VENUSIA.

Thrilled with their reception, Mark and Nayella hopped into a liquid air driven limousine and raced off to the palace through cheering crowds and saluting soldiers. A few days later Naya had achieved her heart's desire—a wedding with all the pomp and ceremony, and finery, that that charming young lady deemed to be quite essential for such an event. The impossibility of such a proceeding in Venusia was one of the things that had turned her against that serene country with its sublime indifference to a wandering atom in space called Nayella Gaba. She was now Queen of Protonia in all but name, as the Terrible Terifa's leadership was purely nominal.

As soon as all the ceremonial fuss was over, she reminded Mark of the fact that they were at war with Venusia and that he had not yet told her why.

"It was all on account of some old white-whiskered sticky-beak," replied her charming husband. "He poked a telephoto lens into the sky one night and said that Venus was inhabited. No other astronomer agreed, and he died in disgust with the ridicule that was heaped on him, but we, the leaders of this free and enlightened nation, had to be on the safe side. If there were people on Venusia they were a challenge to our rule of the universe, so we issued the appropriate manifesto. It set out, as a matter of course, that the Venusians were bloodthirsty, barbarous and savage; that their land resounded with the tramp of armed men—'

"But I never once saw a soldier in all Venusia," protested Naya.

"Did I suggest that you did, young lady? I'm merely quoting the manifesto. Please don't interrupt.

"The manifesto," continued Hipper, "set out that the Venusian space-ships had thrown bombs on this planet and that they had rejected an ultimatum, for which reasons, and purely as a measure of self-defence against ruthless aggression, we were compelled to declare war."

"What then?"

"Having declared war on Venusia, of course we had to find out something about it."

"Sure, my dear Mark. Might have been awkward if they had found out that you were at war with them."

"That was the reason for the presence of my space-ship so close to Venusia, my dear. I was on a reconnaisance. When I saw your tinny flivver, I had hopes of taking a prisoner or two, but I little dreamed that my good luck would so far exceed my highest hopes."

"Take a bow, Marky," said his charming wife. "Take a bow."

She paused, and a pensive look stole over her strong, firm features.

"Penny for your thoughts," said her husband teasingly.

Naya did not reply. She was thinking, even as Vern Rayo had thought in that epochal past before the father of all Protonian gangsters had migrated: "Which one of us two will bump the other off?"

"Mark," she said suddenly, "you'd like to know a lot more about Venusia, wouldn't you?"

"I rely on you for the information, my dear."

"And I would like to learn a lot more about the place myself," she replied. "You know, people are educated a lot by comparisons sometimes. Seeing this joint you call Protonia has made me wish to understand a lot of things I was blind to on Venus. Say, let's disguise ourselves and go back there."

"A preposterous idea," he stormed.

"Cold feet, Marky boy. Afraid of losing your life?"

"Certainly not, but could we disguise ourselves?"

"Oh, my foot. With our Protonian technique we should be able to disguise ourselves as postage stamps."

"No doubt, no doubt," he observed. "Even I, Mark Hipper, the great pirate chief of Protonia, might learn something from the Venusians."

"Then why not come with me and learn it at first hand. It *would* be fun, wouldn't it, dear? Besides, have you made up your mind what you're going to do with the Venusians when you've conquered them? Bump 'em off, eh. Oh, you great, big, beautiful slaughterhouse, I love you."

"By Jove and his Nine Heelers!" swore Hipper. (This was considered a terrible oath in Jupiter's planetary system. It recalled the Boston bull pup which called its mate a Texan son-of-a-cat.) "By Jove, I never thought of that. What a devil of a mess we'd have been in if Vern Rayo, or that Spanish chap, Bejabers y Begorra, had wiped out the Stone-landers instead of finding out how we could use them?"

"Then why not make the venture, dear?"

Hipper pondered for a while, then agreed. Having once made up his mind, he lost no time in putting the plan into operation. The Protonians were masters of disguise. They did not merely change externals, making tall people short and long-headed people square-headed; they changed voice, manner, outlook, the whole personality in fact. They had long ago answered the question asked by Mark Twain, "Is man a machine?" and had manufactured spare parts in profusion. To all outward appearances two young people of about the same build, with high-pitched tenor voices, and looking quite like any ordinary young people of Venusia, entered a space-ship, but they were Mark and Naya on an espionage trip. Their space-ship, too, was made to look like one of the many of its kind which were used by their enemies.

The plan was that they were to approach a favourable spot over Venus and leave the space-ship by a small two-seater plane. Having alighted on the planet, they would remain for a stipulated time to watch, observe and listen; then, at the appointed hour, they would be picked up at the same spot by the space-ship.

Everything went off nicely, and without the slightest mishap the two gangsters made an easy landing in a lonely spot, where they hid their machine in jungle country. The Pirate Chief, aided by his treacherous bride, had come to find out all he could about Venusia, but had he known how much the guardians of that peaceful and seemingly defenceless planet already knew about one Mark Hipper, and that charming band of hair-trigger men in Protonia, he would have felt less assured about the future.

CHAPTER NINETEEN.

THE BOMB.

"Don't work yourself to death, dad!"

The speaker was Vera Morant, and her anxiety for her father's welfare was not without cause. For days and weeks Professor Klado and his colleague Neale Anders had toiled without respite from dawn till past midnight, barely pausing to snatch a few hours' rest, sometimes working right through the night.

The subject of their industry was a weird machine about which Fergus Klado would say little even to his daughter. All that Vera knew was that she and her husband, sometimes under Professor Anders's direction, at others guided by her father, had carried out many experiments in chemical combinations. At last they had succeeded in producing a compound which seemed to meet all the required conditions, but for what purpose it was intended to be used neither of the two under-studies had the faintest idea.

The main laboratory in which the two professors did all their work was about thirty feet square, big enough to house the completed machine as well as a small table at which all four dined together occasionally. By no means an elaborate affair, it had but one door and a couple of windows which looked out on to an open space sloping down to the lake. About a hundred yards away was the minor laboratory in which the Morants worked amid a formidable array of bottles, jars, test tubes, glass measures and electrical apparatus.

The lawn on which the two buildings stood was open and easily approached from the main street, though ringed round with tall flat buildings in one of which the Morants lived. Not even a hedge guarded it, as there was a saying in Delago City that good citizenship was the best guardian, and neither interference nor malice was to be reckoned with.

Of late Vera had noted with anxiety that her father was developing a marked indifference to food, accompanied by a feverish anxiety to work without ceasing. She knew enough of the nursing game to understand that this was a danger signal on the high road to a lunatic asylum, and the remark that she had just made heralded her entry into the main studio with a tray on which was a shining teapot and a pile of dainty eatables. Food was not hard to find on Venusia, nor did it require much preparation, but Vera was not to be denied a little feminine artistry in that respect. It expressed her keen anxiety for her father.

"Um, yum! Excellent," said the elder Klado as he spied the tray.

Vera had expected the same cold indifference and was prepared for a little tactful pressure on her overworked parent. She was agreeably surprised at this ready appreciation of her efforts.

Klado noted her smile—the first he had seen for many days.

"Yes, my child. It is finished," he said. "Now we can talk and eat. Hello, Anders (as that worthy entered the door), just in time to join us."

Vera gave a little cry of delight. "Let's bring in Eric and make it a real party."

She ran to the neighbouring chemical laboratory: "Eric! Eric!"

A cheery "Righto!" was her answer as her husband emerged from the "stinks department," as he termed it, and completed the group.

"Yes, the job's finished, dear," repeated Klado, emphasising his readiness to relax. He was like a man just relieved of the strain of a crushing burden.

"And about time, too, dad. I really thought that you were going into a nervous breakdown. If there's a bughouse on Venusia, that's where you were heading. I was waiting for you to fall asleep with your boots on or flop on the floor a few times, then solemnly assure me that you were in the pink of condition."

The soft light fell on her fair hair, filling it with glints of gold, and her big, clear eyes were turned on him reproachfully as she spoke.

Her father looked at her admiringly:

"How essentially human we all are!" He almost spoke the thought aloud.

Vera was discerning enough to get a general idea of what her father was thinking:

"You like Delago and you like your new way of living, dad."

"But to-night is the greatest triumph of all, my dear. It puts a period to a long life—quite extraordinarily long if we count the sleeping time—and I feel now that I can cheerfully take a longer rest than the last one:

"Then star nor sun shall waken,
Nor any change of light:
Nor sound of waters shaken,
Nor any sound or sight:
Nor wintry leaves nor vernal,
Nor days nor things diurnal;
Only the sleep eternal
In an eternal night."

"Dad, you're not thinking of leaving us," exclaimed Vera

"Don't take him too seriously," put in Anders. "He's just letting off steam—the natural reaction to completion of a mighty task. Look at me. I have had as big a hand in this as your dad and I don't mind in the least living another million years."

"Also, would you mind telling us what it's all about?" put in Eric. "Vera and I have been working on this crocky old mystery machine many weary hours, and you haven't shown the slightest inclination to let us into the secret. As a fact I'm feeling rather peeved."

"All right then, Eric. It's the greatest fighting machine the world has ever seen. We call it the superlative and transcendental, nullifying, disrupting, pulverising, comminuting, cataclysmic disintegrator."

"Sounds terrific. What does it do?" asked Eric.

"That must remain a profound secret for the present, my son."

"Of what use, then, is a war machine in this peaceful world? Isn't the whole planet united, or are we going back to the days of 'Nature red in tooth and claw'?"

"No, but I fear that we may have rivals in space."

"Likely enough," observed Eric. "Can we claim a monopoly of space navigation in this fair universe?? I think not. I have no fear that we have any rivals within the orbit of remote Pluto, but, after all, that's only a hop, step and jump."

"I agree," said Anders, "but the sun is only a star and there are millions of stars. I suppose that some of them at least have planets spinning round them."

"But unless those planets have an atmosphere like ours, life on them would be impossible," suggested Eric.

"Not at all, my friend Morant," replied Anders. "Many bacteria breathe nitrogen, not oxygen. There could be totally different chemical and physical conditions supporting a race of giant insects or super-intelligent bacteria."

"So what!" retorted Eric. "Such things couldn't live in our atmosphere any more than we could live in theirs."

"No, but they might stand off and toss bombs at us, or throw monkey wrenches into the works of our solar system," suggested Anders. "I don't know that it would be so fantastic to suppose a race of super astronauts picking up one of Mars's tiny moons, or an asteroid, and popping it at us like bad little boys shooting pellets from a finger shanghai."

"Tut, tut! Now you're encroaching on the theologians' sphere," warned Vera.

"Well, why not? Hang the theologians," retorted Eric. "To me their theology is all inside out and standing on its head. Why shouldn't we suggest Supreme Intelligence as the *end* and not the beginning of things? Let us suppose that after billions of years of conscious evolution man, or some other intelligent form of life, reaches the stage where it can run the universe round like a motor car or wind it up like a clock: isn't that as reasonable as Newton's idea that the Supreme Intelligence wound up the watch and then stood aloof from it?"

"Say, when you two have done kicking stars, planets and galaxies around like footballs, will you come back to earth—or rather Venus?" protested Vera.

"Venus was a lady,
Though her past was shady,"

quoted her husband.

Vera replied with a lettuce heart which whizzed past his ear:

"I was about to remind you, smarty, that Citizen Obigosh seemed to think that Protonia was inhabited."

"By Jupiter, yes, my dear; I had quite forgotten all about it. Protonia is just across the street, as you might say."

"I haven't forgotten what we heard that day about Protonia," said Klado. "Quite the contrary. I've given it a lot of thought and some practical attention too."

Eric Morant raised his eyebrows in surprise. The prospect of an inter-planetary war had never dawned on him. That, indeed, would radically change conditions of life on peaceful Venusia.

"You don't mean that this machine is intended for use against the Protonians!"

"I'm not prepared to go into that," answered Klado.

Mention of Protonia reminded Vera of Naya's disappearance. She wanted to know if the others thought it was time to give up all hope of her reappearance.

Fergus Klado gave a little start of surprise. His daughter's question had pulled him back from starry realms to the more intimate field of family relations:

"Curious that you should ask that question, my dear. Only this afternoon I was rather forcibly reminded of your cousin."

"How, dad?"

"You know that I haven't bothered to take any precautions to shut out visitors from this laboratory; haven't felt any such need, in fact. People in Venusia don't need bolts and bars against the neighbours, but this morning a young couple bowled in rather unceremoniously as I thought. Their excuse was that they deeply sympathised with us in the loss of one of our Earth-born family, and wanted to know if I knew any more about Naya's disappearance than the papers had printed."

"Kind of them, dad. Poor old Naya! What were they like, or did they say who they were?"

"I must tell you first of a curious illusion of mine. I suppose that I was tired and over-wrought and my brain was playing me tricks. You remember what Naya was like, of course, tall and strapping, dark-haired, deep-voiced. Well, this young woman was quite unlike her. She was inches shorter, fair-haired, blue-eyed, and her voice was most unlike Naya's. I had my back turned to her for a moment attending to some detail of the machine, and as I turned round to speak to her the light shone on her fair hair just as it fell on yours a little while ago, and I rubbed my eyes in amazement. For there, as I imagined, I saw Naya herself standing erect in her impressive way and talking to me. In a moment the illusion had vanished, but I assure you that it made quite a painful impression on my mind while it lasted."

"Shows how near you were to a nervous breakdown, dad. I'm pleased indeed the jolly old machine is finished."

They chatted away for a while; then Eric yawned.

The possessiveness of the young wife immediately asserted itself:

"Come on. Off you toddle, young fellow. And how about you, too, dad? Surely you'll give yourself a good night's rest now that the job is finished?"

"I promise you truly that I'll hit the hay early to-night, daughter, but Neale and I will smoke a pipe and discuss old times a while before we turn in. Now run along."

"Good-night to you both," said the young people. "See you to-morrow."

That morrow never came!

The two scientists chatted on, blissfully smoking their pipes and exchanging ideas. They drowsed a little, and as their heads nodded, a stealthy step sounded on the lawn outside, and a face—a livid, ghastly, distorted face—peered in at the window.

It was that of Floreto Mara, the young woman who had greeted the strangers so cheerily on their arrival in Venusia. But what horrible transformation was this? That sweet, girlish face, wistful with sympathy for the strangers in an incredibly strange land, was now transmogrified into a fearsome mask of rage, rate and cruelty. This woman was a killer. With a swift motion of her hand she dropped into the paper basket a rough, cast-iron cylinder in size and shape like a pineapple. It was a live bomb. She sped across the lawn and vanished into the night. A few moments later there was a terrific explosion.

Awakened by that shattering roar and the crashing of glass, the people in the neighbouring flats rushed out, among them Vera and Eric. They ran to the smouldering wreck of the laboratory, and what a sight met their eyes. Amid the ruins were the torn fragments of the two inventors' bodies. Blood was spattered everywhere, and of the just-completed machine hardly a fragment remained.

The assassin had done his job well.

CHAPTER TWENTY.

GREAT MURDER MYSTERY, VENUSIAN STYLE.

"Who dunnit?" exclaimed Inspector Shellac, of Scott's Paddock. "Who dunnit? Why talk like a writer of third-rate mystery fiction, Citizen Morant? Who cares a toot-hoot who dunnit? Man, this isn't a private funeral. It's cosmic; it's super-planetary; it's terrific!"

Eric Morant and the police inspector—at least that was what Eric called him, and he didn't argue—were sitting on the limb of a fallen tree in a sparsely-wooded stretch of green, rolling meadow known as Scott's Paddock. The sky was their ceiling, and, instead of losing himself in a maze of gadgets, documents, microscopes, buzzing telephones and miscellaneous clues, the Great Detective, super-planetary Hawkshaw and Sherlock Holmes rolled into one, kicked his heels under the sloping branch on which they sat.

"But, stone the crows!" protested Citizen Morant, "I'm not half way through telling you about the crime and you've already got the solution."

"Elementary, my dear Watson," replied the investigator, "elementary! A crime in Venusia is a blow against society, struck without any present or prospective advantage to the villain unless our whole society is overthrown. It follows, therefore, that the assassin is the agent of a foreign power which aims at destroying Venusia entirely."

"I admire the lightning speed of your deductions, Inspector Shellac, but to me this heinous deed calls for punishment. Murder is murder:

" 'Murder most foul as in the best it is,
But this most foul, strange and unnatural.' "

"As Bill Shakespeare says," added the inspector.

"Murder has been done, and you show no interest in the possible ramifications of the mystery, no professional pride in unravelling the twisted threads of evidence that lead to a solution, and no passionate desire to see justice done. It's all wrong according to the rules."

"And not a tear of sympathy for the old fossils who were bumped off," added Shellac.

"Callous," protested Eric, "monstrously callous to talk so about the death of two innocent men."

"Innocent, my foot! How could they have attained adult years on the planet Earth if they had been? On that slummy mudball innocence always faded in infancy."

"Really, Inspector Shellac!"

"Now don't misunderstand me, Citizen. Really, I'm a most sentimental fellow, with a tender heart hidden beneath a rugged exterior. I can't look at starving orphans abandoned to their fate, in one of those celluloid melodramas that have come to us from Hollywood, without blowing my nose loud enough to wake a cemetery. But where are the starving orphans in this case? Imagine a starving orphan in that sub-atomic garden in which you woke up. Stone the crows, sez you."

"Elementary, my dear Holmes," observed Morant, "elementary!"

"Then what have we?" continued Inspector Shellac relentlessly. "Two old fossils, imported here about a million years ago from a crummy mudball that had to run a slanter in a walkover field of one, a crock that couldn't steer in a clear orbit without tangling in its own feet. These two old-timers are bumped off by somebody before they have time to snuff it. Why, if I were writing up the story of 'How We Flitted From The Falling Moon,' I'd have bumped 'em off long ago as surplus baggage. They were only gumming up the works. A million years is long enough for any good Christian to live, even in Purgatory. Besides, their life's labour hasn't been lost. I have a model of their machine."

"I must say that my own kinsmen showed a much greater regard for human life than your people, if you are a typical Venusian cop."

"Sure! Sure! Barring a world war to top off the whole of the planet's young manhood every generation or so. We

hard-boiled Venusian cops are sometimes moved to tears by the tender solicitude for their fellow-beings which our terrestrial ancestors showed."

"At least, then, Inspector, as a detective you'll admit that it was a good murder?"

"Oh, quite. Rather juicy, in fact. Blood, entrails and scraps of brain glued to every splinter of wood. The Fire Brigade had to do quite a lot of slushing around. Cremated the house, so we did, but the corpses just faded. A sticky end—rather!"

"Why the harrowing details?"

"Do you realise, Citizen Morant, that this is the first murder we've had in a million years?"

"Really! Is it as bad as that?"

"Fair Dinkum," said the cop. "Nobody don't bump off nobody in our world no more."

"Why not?"

"No motive, Citizen. By way of comparison, what was the chief crime in your earthly law courts?"

"Robbery, I would say. I suppose there were more charges of stealing, with or without violence, or receiving stolen goods, or conspiring to cheat and defraud, than all other indictments combined."

"Robbery? Pooh!" said Hawkshaw Shellac. "Go out and find something worth stealing in all Venusia, and I'll lend you the State Trawler to take it home."

"Jealousy, then? Envy, revenge?" suggested Eric.

"Rule out envy as having an obvious property basis, then how often were the other two without that same basis?"

"Yet a murder has been done right here in the Elysian fields of Hesperus; here in this realm of all things perfect."

"Elementary, my dear Watson, "elementary! Now who commits a crime in perfect Venusia? Who pinches St. Peter's shirt in paradise when nobody don't need no more shirts?"

"Why, a lunatic, of course, Inspector."

"You said it, bo. Whoever dunnit was nuts. That's sure elemental, see."

"Then what you've got to do is to get your man like the Mounties, you big dumb cop."

"Dat right dat all de harness bulls is dumb in de story books?"

"Sure, Inspector. How could the superlative genius of a private detective shine up by contrast if they weren't?"

"O.K. I'm de dumb oyster."

"So where do we go from here? Do you start to find out who dunnit, or do you give up and call in Sherlock Holmes?"

"You got me wrong, bo. Foist, we finds out who's nuts. If someone's nuts in dis burg, dat's de big story. De murder is chicken-feed."

"Have it your own way, then, Inspector. A bomb having been thrown, what do you do?"

"Arrest de guy dat t'rew de bomb."

"Then why don't you?"

"I have. It's poor little Floreto Mara, and she's in the clink right now."

"Phew, Inspector, I'm staggered. So that innocent-looking girl is a cruel murderess!"

"Boloney! She's the essence of tender-hearted girlhood. She just threw the bomb."

"Wait, wait. Are you sure you haven't got this all balled up, Inspector Shellac? Floreto Mara threw the bomb, but she isn't a murderess. Oh, I have it; she's nuts; crazy as a bedbug, sez you."

"Aren't we all? You ask them lecturers in my psychology class."

"Say, aren't you a copper?" asked Eric.

"No, I'm only a student of psychology. There isn't any police force on Venusia. The coercive functions that that body possessed in your time have disappeared, and its useful functions have been divided between the Traffic Board, Health Board, Social Welfare Department, and the Department of Applied Psychology. I'm a junior clerk in the latter, and they put me on this case."

"Then how did you track down the girl killer?"

"Simply by finding out who on this planet was more crazy than normal. Putting jokes aside, Citizen, you know that we're all capable of mental aberrations sometimes, but such an enormous digression as this showed that someone here was a menace to society. I simply checked up on the mental reflexes of every Venusian. Firstly, let me explain that every citizen is checked up and tested from time to time for physical or mental deficiencies. A psychological mass test of cranial vibrations is not so difficult as you might imagine. One abnormal person in a million would betray himself at once. That happened in Floreto's case."

"You are holding her for examination then?"

"Yes, but I think that we can be quite sure that she was merely an instrument of the person who had a rational motive for the killing. That means that we have established two things. Firstly, the presence of an abnormal citizen, and secondly, the presence of some foreign agent or agents who have found their way into our world. The latter must belong

to a hostile society in which crime has been given a rational and respectable basis."

"In other words, a world of lunatics," suggested Eric.

"No, my friend, a world run by gangsters. For whoever cannot distinguish between gangsterism and lunacy is a bit of a nut himself."

"That leads us, then, not merely to a Higher Up using Floreto as a pawn, but to a gangster society somewhere out there in space."

"The story, Citizen Morant, is quite clear. On some other planet there is a society hostile to Venus. It sends an agent or agents here. They seize Citizen Mara and by subtle means turn her into an unconscious assassin."

"But why, then, the killing of Klado and Anders?"

"Not merely their killing, but the destruction of their machine. Fortunately, their main purpose was frustrated. Fergus Klado had already placed a working model of the machine in the Government's hands for others to experiment with and improve upon while he and Anders continued their own work. They were both sensible enough to know that two people did not possess all the brains in the world. There must have been something about that invention which the enemy regarded as particularly menacing, and so you have the whole story of the crime."

"By the way, your wife is taking it pretty well, I believe. Is she showing any signs of a bad neurosis?"

"Not at all. Certainly it has been a big shock, but she seems to be reconciled to the inevitable. Vera is not one to brood over things, and, as I said to her, death was sudden and unexpected, which is the best kind that I know of."

"Glad to hear that. Citizen Mara is in a state of stupour now. When she comes out of it, Vera will be able to help a lot in her examination."

"I'm sure she'll have no objection to doing so when you are ready."

"Good. Then for the present, farewell, Citizen Morant. I'm off now to see the prisoner."

So the investigator, having convinced Eric that the mystery was no longer a mystery, went his way.

CHAPTER TWENTY-ONE.

THE HUMAN INSTRUMENT.

After they had hidden their plane in the forest, the two Protonian spies, Naya and Hipper, made their way to Delago City.

Naya was well enough known there—an outstanding personality, in fact, on account of her origin—but she had complete confidence in the effectiveness of her disguise. With malicious joy she looked forward to the prospect of meeting her cousin Vera face to face and doing her some kind of injury. It was true, as Vera had told her on the departure of her rattletrap flying machine, that Naya could only be quite happy by making hell for someone else.

When the pair reached the outskirts of the city they halted, and under Naya's capable direction erected a camp in the woods from material readily available. She knew that citizens of Venusia, when taking up lodgings in a strange place, had to present some kind of identification papers, and she had not troubled to fake them. She preferred to camp in the woods. Food was plentiful enough, and life was quite as pleasant there as anywhere else.

Having set up camp, the pair walked into the city and wandered around a while. Nayella had a lot of things to show her pirate chief and a lot of things to explain to him, and what he saw and heard made him morose and surly. Moving among those free-and-easy crowds and noting their sense of perfect equality was by no means cheering to the Boss Gangster From Afar; on the contrary, it filled him with all the malice of a man who sees great things achieved by those whom he despised and by methods which he had, all his life, ridiculed. He now disliked the Venusians more than ever. He was even moved to a generous appreciation of the fact that his captured bride sincerely hated the country, and had not merely dissembled to please him.

'Naya, my dear," he said, "I didn't really understand how much you hated this place till I saw it myself. Forgive me if I have thought all along that you were a liar, a crook, and a poison ivy."

"So you thought I was an impostor and no doubt decided to bump me off at the right time. My charming Big Chief, what a delightful fellow you are."

"And it's *just ghastly,*" she added after a pause, and a wry smile at the beautiful Venusian sunshine, "to be in a place

where nobody don't bump off nobody no more."

They moved on to a sports ground where a series of athletic games was in progress. There was a tremendous crowd, nearly all of whom were players on other fields of at least one of the games that they had come to watch. So everyone was in good humour, and there were lots of people just walking round and not over-exciting themselves about any of the contests. Naya steered her partner through the crowd, keeping her eyes open, hoping that she might meet one of her four fellow-voyagers across the seas of time. It would have been a rare chance, but even in such crowds such meetings happen occasionally. Had she met any of them she would have promptly approached and entered boldly into conversation, confident in her perfect disguise.

Lucky was not wholly with Naya that day, but it seemed to make a favourable compromise when she met a girl friend who knew the Morants quite well. This young lady, in the enthusiasm of a five-minutes acquaintance with a charming friend who knew somebody that she knew, proceeded to tell Naya all the intimate details of her own affairs and her friends', even inviting her to a boating and swimming party on the lake. Naya thus learned all that she wanted to know —that the two professors and the Morants had teamed up and were engaged in scientific research. She also learned the location and layout of the two laboratories.

When they returned to their camp that night, Nayella said in her forthright way:

"I think we ought to wipe that Klado team, Mark."

"We have a serious purpose here, my dear," he said, "and I'm not one to indulge in foolish diversions and amusements. Are they worth powder and shot, think you?"

"The Queen of Protonia thinks so, my Lord Admiral," was her mocking reply. "Getting even with that blue-eyed, baby-faced doll, Vera, would be worth a lot of gunpowder to me. Besides, we are at war, and surely the destruction of four painstaking scientists would be a blow struck in the cause."

Now Vera's eyes were not blue. They were grey, bright with intelligence, and not a bit babyish, but Nayella, like many brown-eyed women, disliked blue eyes as they seemed to her hard, cold and unkindly, so to the pirate queen Vera's eyes were blue.

Hipper made no reply to this gentle suggestion. Cool-headed and business-like, he cared little about risking himself to satisfy his wife's craving for revenge for fancied wrongs, but an accident changed the whole course of events.

At dawn the next morning the Hippers were bathing in a spring of crystal clear water which cascaded over the rocks near the camp. Sunrise on Venusia was a glorious sight, far exceeding in splendour any earthly dawn that Naya had ever seen. Closer proximity to the sun made the light stronger, but the denser, cloudier air of the planet modified both heat and sunlight. There was never a cloudless dawn on Venus, and what the adventurers saw was a blaze of softly luminous glory, a canopy of clouds changing like a slow-motion screen tinted with gay colouring from one fantastic scene to another, then merging into a soft, uniform luminescence as the sun rose higher.

The sight thrilled the beholders and might have inspired nobler thoughts even in the minds of the hardened racketeers, but their attention was soon diverted to another scene. Winging up with the dawn, in the light of the rising sun, came a small "flying wing," a monoplane of that model which represented the ultimate in atmospheric navigation. Fuselage and engine were packed into a long, stream-lined and almost tailless wing tipped with ailerons. Its top speed was 700 m.p.h.

As it passed over the forest, its pilot in a reckless dive skimmed the tree tops. In that treacherous light the silvery limbs and branches of a forest giant which towered far above his humbler brothers must have been camouflaged, as the plane ploughed right into them. There was a terrific crash as it broke off a big limb with the force of its impact, and, still going, dived on to the level, treeless surface of a table-topped hill a few hundred yards further on.

Automatically Naya shrank from the expected explosion and burst of flame. She had lived long enough on Venusia and learned enough about aerial navigation to know that up-to-date planes did not carry their own power plants. Their motors were always operated by wireless power from central stations in the same way as rail trains, and they were almost as safe. Mark Hipper, unlike his wife, had no sub-conscious hang-overs from a former life, and he rushed towards the plane at once. There he saw lying under the wreckage the sole occupant of the plane, a young woman. "Naya," he shouted, and as that young lady, having recovered her wits, came running up, he pointed to the trapped pilot. Together they pulled and lifted, and soon had her free from the wreckage.

"Dead?" asked Hipper as his wife bent over her.

With as much concern as if the young lady had been made of wood, Naya made a practical survey and in a few moments reported:

"No broken bones, no wounds; only dazed."

Her active brain was working quickly, and almost without a pause she added:

"Mark, I know this young flyer. She's Floreto Mara, and I've an idea she'll prove very useful to us."

She picked the aviatrix up in her brawny arms, holding her like a baby and standing erect with feet slightly apart as she faced her husband.

Mark could not help admiring her magnificent strength and gracefulness. She reminded him forcibly of a bronze statue of a lioness on a rock holding a cub in her mouth. When she followed her last remark by shouting an order at him, the pirate chief of all the ten Jupiters was ready to obey like a lamb.

"Get that junk out of the way," she shouted. "Toss it over the cliff. I'll look after this jane."

Hipper saw well enough what Naya was aiming at. On the open and elevated table top the plane was a conspicuous object from above, but at the bottom of the cliff the brushwood would hide the pieces completely. While he was clearing away the fragments, Naya had carried Floreto into the hut and placed her on a rough stretcher. Presently she opened her eyes and enquired:

"Where am I?"

Naya comforted her with an assurance that she had not seriously hurt herself and would soon be all right, gave her some stimulants, fussed around her, and made her feel comfortable. Soon she was off into a sound sleep.

Bright and early next morning the two spies made a visit to Klado's laboratory—the visit which Klado had mentioned to his daughter. Naya's over-confidence in her disguise had almost proved her undoing when Klado, in spite of everything, had caught, even through the seven veils of that magic transformation, some glimpse of her personality—the old, unique Nayella which even the scientific wizards of Protonia could not wholly transmute. Had she encountered the alert Vera with her keen feminine insight, the queen of gangsterdom might have ended her reign that same day, but Klado, over-tired and over-wrought, had dismissed the glimpse of truth as a hallucination.

That visit converted Hipper to Naya's plan for destroying her companions. Though Fergus Klado had been guarded in his words with the strangers, he had said enough to give them the impression that this was no machine for merely peaceful purposes, but an engine of war capable of striking a deadly blow at an enemy, and the pair left in a state of alarm. If men like Fergus Klado and Neale Anders were

engaged on war work, then it appeared to them that, instead of sleeping in blissful ignorance of that menace beyond the skies, Venusia was aware of it and preparing to meet it. Some hint of Protonia's existence and potency for evil must have reached the planet. Perhaps, thought Hipper, it might have been wiser to have found out if Venusia were really something more than a star-gazer's fancy before branding it an aggressor nation and declaring war on it. If the Venusians found out that they were at war, explanations might be necessary.

They found Floreto sitting up in the hut, brighter but a bit dazed. Evidently her brain had had a shaking up in the fall.

Naya, after making sure that she knew a lot more about the patient's condition than Floreto could know herself, uttered the usual platitude:

"Oh, how *are* you, darling?"

Darling thought that she was fine and immensely grateful to the kind woman who had tended her so sympathetically. She then confided to her nurse that she had been carrying despatches, very very important despatches.

Naya assured her that the despatch bag was quite safe in the hut, which was quite true. She might have gone further and added that, after having gone carefully through its contents, she noted with disgust that all the letters were in a code of which she had not the key, but Floreto's words had given her the handle she needed to open the door of intrigue.

"My dear," she said, "I and my husband are in the Secret Service too, and, confidentially, we've learned some of the *most dreadful things*. Do you happen to know those people who were *supposed* to have come from the Earth here? You know, the ones that were put in the cooler and brought to life here just simply *millions* and *millions* of years later? Between ourselves, dear, I always *did* think that was a bit *romantic*."

"I know them all," said Floreto, which was no news at all, at all, to nursie. "And I know Vera Klado particularly well. Whether she's from here or over there I don't care, but she's *just* sweet."

"You'll be surprised, my dear," urged Naya cooingly. "I have it on the *most perfect* authority that those folks never came from Earth at all, and what do you *think?*" Naya rounded her big brown eyes into an expression of profoundest amazement and horror, and her contralto was as the rumble of subterranean menace: "They're from a dreadful place called Protonia; a horrible place, not even a planet, just a low-class satellite!"

Floreto seemed duly impressed and Naya rushed on:

"Now abso-lutely in confidence, my dear, those four dreadful people—that blue-eyed, innocent-looking, baby doll, Vera" (the one that wished me to blast-furnace Mercury, thought Naya to herself), "her husband and those two warlords Klado and Anders—have been working the most diabolical conspiracy against our beloved Venusia.

"It appears that this Protonia is a most dreadful country; just the sort of place, my dear, you'd expect to find tagged on to a ball of seething fiery magma like Jupiter with a big Red Plague spot crawling all over it. It is ruled by a group of the most frightful gangsters" (here the healthy young hyena felt a twinge like rheumatoid-arthritis; that part of the story was true and how it hurt to tell it), "who live on one side of it and keep all the people on the other side in a most terrible condition."

"Now these conquerors of Protonia weren't satisfied with their own planet. Somehow they found out that Venusia was a beautiful lovely place where everybody was happy and there were lots and lots of everything, and what do you think they decided to do? My dear, you'd be *surprised*."

"No, I wouldn't," said Floreto, dazed as she was by her fall and this torrent of high-pressure sales talk, "I don't think I'd be surprised if they tried to grab it."

Naya moved her hand softly over the patient's brow in her very best bedside manner. No Macquarie Street specialist was ever more anxious to know a patient's cerebral condition exactly. "Really, my dear," she ran on, "you *have* got insight. Yes, they decided to grab it. So they sent those *awful* people Vera and Eric Morant (that man of hers, my dear; I don't believe they're *really* married), and Klado and Anders, here to spy out this country. How our politicians could have fallen for that awful boloney that they lived on Earth millions of years ago and came here in a freezer I simply *can't* think, but you know, my dear, what politicians are—even on Venusia."

Floreto, sitting dazed and open-mouthed, murmured:

"And I was so sorry for Vera. I thought it sad the way she lost her cousin, going off into space and never heard of again."

"My dear, that's just the most dreadful part of the story. Do you know what that cousin of hers did? Mind you, I don't think Nayella Gaba was as bad as that awful cat Vera Klado, but she was a spy too, and one day she flew off into space, just like she was hiking to the hills. But, my dear, I have it on the very highest scientific authority she went right off to Protonia with that machine of hers crammed with maps and plans and all kinds of information. So thanks to

her and Vera, especially Vera, the Protonians know how to launch an attack."

"Oh, dear," exclaimed Floreto, "and aren't we ready to meet it?"

"I'm happy to know that we are prepared, very well prepared," lied Naya cheerfully, "but we must be careful of enemy agents stabbing us in the back. Only to-day I made a dreadful discovery. Those people are at work on a sabotage machine, and as soon as the Protonians attack they'll unloose terrible destruction, striking in the rear of our forces."

Having thus poured alarm and confusion into the mind of the dazed young aviatrix, whose brain was not yet functioning smoothly after that awful smash, the cool gangster played her trump card. Protonia's gangsterland had long specialised in drugs which overpowered the brain and produced the most baleful effects. One of these was capable of producing a trance-like state in which a victim could be hypnotised into carrying out the orders of a master mind. At a signal from Naya, Hipper released this drug, and, while the two shielded their faces, Floreto found herself passing into a land of the most beautiful dreams.

The gangsters had not come unprepared. The unconscious instrument of their foul plot was now supplied with a powerful bomb. Her conscious mind had already been prepared by the fine publicity work of the glib Naya, and with the ground thus prepared the master gangster's task was made easier. By hypnotic suggestion Hipper directed his human instrument where to find the laboratory and what to do.

It was not his fault that there were only two victims. The assassins would have dearly liked to have stayed and learned the result of their crime, but time was precious, and they did not dare to expose themselves directly.

While the unconscious girl was on her way to carry out the infernal orders, the Hippers, in a stolen plane, were flying to the jungle nook where their own machines were hidden.

Before the smoke of the bomb had cleared, they were winging their way back to Protonia in the big space-ship that had swooped down to meet them.

CHAPTER TWENTY-TWO.

THE GREAT ARMADA.

Back from their voyage to Venus, the conspirators crept into the puppet Czar's great golden palace.

This time there were no cheering crowds and no fanfares. What Hipper had learned of the new world that he had sought to conquer was not too cheerful for Czar Terifa and his councillors as the Chief Admiral unfolded the story to them at a secret session. They decided to strike at once, and Admiral Hipper in all his gold braid strutted forth to lead the already mobilised fleet.

There was no ceremony and no hoisting of flags. The great war machine clicked and whirred and purred; cryptic signals and weird geometrical designs flashed on dark screens inside the sealed hulls of space-ships thousands of miles away from the home base, and soon the flight began. From aerodromes north, south, east and west, from land bases, and from lakes and rivers, even from the open ocean, where they laughed at howling winds and dashing seas, the great spheres rose. Up to the stratosphere they went, and beyond it into the emptiness of space. Here they formed into battle line and rocketted on through starry realms.

These battle spheres were much larger and faster than those which had winged Vahlen's gangsters across space, though their shape was the same. For spatial navigation the perfect sphere would not be improved upon till the end of time. For observation purposes the hulls were of transparent plastic, which admitted vibrations of a certain wavelength and excluded others.

Vahlen's ships with their sleeping crews had been steered through space by men who gave up their lives to guide them, but technique had marched a long way since then. Hipper's spheres carried their own power plant in the form of a liquefied gas. That gas was the coldest thing in the universe, much colder than the absolute minus of space temperature, which is 273 degrees centigrade below zero. Exposure to a higher temperature immediately converted the liquid into a gaseous form with an enormous generation of energy. A steady stream of this liquid released into an exhaust pipe expanded with a force which drove the ship along, air or no air, on the rocket principle. There were several of these exhaust pipes at various points on the sphere's hull, and they not only functioned as propellers but as rudders, mov-

ing the ship up, down, or to port or starboard as the gas pressure was varied or cut off in one exhaust to be released in another.

In moving across space a magnetic beam was used to keep the space-ship on a pre-determined course. Space navigation had its handicaps, and the relative position of the planets when a voyage began was one of them, but luck favoured the pirates, for as the fleet set out Jupiter and Venus were at their nearest approach.

Hipper's flagship was the last to leave its base, and as it soared aloft the rest of the fleet was already roaring onward in battle formation. The spheres were massed into three lines shaped like sharp arrow-heads followed by a less compact and more irregular line. In the first line were the heaviest ships with great armoured hulls designed to pound up everything as they crashed down on to doomed Venusia. Many of these with their whole crews would be ruthlessly sacrificed. They would thunder down on cities, factories and workshops in close formation, steam-rollering a wide swathe of destruction and pouring out clouds of blazing gases from their exhausts. Some of the following spheres might be consumed if they landed in these billowing flames, some of them might even crash on to those in line ahead, but that was all in the game, for this was war. The spheres which came on behind these colossal armoured spearheads almost without battle formation contained the elite of the Protonian fighting forces with the flagship itself, in which Mark had brought his bride to gloat over Venusia's destruction, bringing up the rear.

In the judgment of the Grand Admiral the battle would be a matter of minutes. The issue would be decided even before the last cluster of spheres had landed. The elite of the navy would simply reap the harvest of victory after a mere pleasure trip. Following the lightning blow which would pulverise the defences would come the systematic uprooting of Venusia's cities. Even to the last stone they would be levelled and shattered in a few hours. Mopping up would be carried out with mechanised Frankenstein dogs. These would go into the forests, the swamps, the jungles, sniffing out the last wretched survivors, piercing all camouflage with magnetic eyes, and crunching flesh and bone with steel teeth. There was to be no taking of prisoners. Hipper would bring his own serfs to plough, to sow, and to harvest, but he did not want to leave alive one person who could tell of what Venusia once had been.

On, on, through space the roaring armada swept. Meteors, comets, asteroids were brushed from its path as by a swishing broom. It left Callisto, last of Jove's satellites, far behind, it tore through the stream of asteroids that littered the orbit of the stillborn planet (that yawning gap between mighty Jupiter and minor Mars), it drove on perilously close to Mars, even dragging one of the tiny satellites out of its orbit, then it went on through the stream of jostling meteorites that had once been the most beautiful of all the heavenly bodies, the divided planet Earth-Moon.

Through that meteor strewn path—but no! What was this, and what was happening to the invincible Jovian armada that sought to sweep everything before it?

The stones of that earthly graveyard were coming to life!!

The shattered fragments were linking up. Like soldiers on a drill ground they formed into phalanges, then came rushing on, dashing and crashing at the Protonian space-ships.

Mark Hipper, Grand Admiral of the Cosmic Ocean, Chief of Celestial Gangsterdom and uncrowned Czar of Protonia, gazed through the super lenses of his space flagship, and for all his callous stony-hearted gangsterism what he saw made the blood freeze in his veins. Whatever force his armada had possessed against lesser meteor showers, it was impotent now against the massed energy of that dynamic swarm. Those stones of a dead world came hurtling down in embattled masses on to the armoured spheres, and one by one they crushed them like giant egg-shells, till of all that proud fleet the flagship alone, discreetly bringing up the rear, was left intact.

Far, far beyond the reach of Hipper's armada, away back in moonless Venus in a giant powerhouse which had concentrated enough of the sun's radiant energy to have burned up Protonia itself, even as it had crushed its embattled navy, a pot-bellied pundit stood in the midst of a group of young engineers' apprentices in greasy overalls. The inevitable cigar was in his mouth, and there was only one man in all Venusia who could hold it just at that jaunty angle—the Pundit Oskhosh Obigosh.

Peering into the super telescope, the Mahatma of the Seven Veils Unveiled, to whom the mysteries of heaven were but as the Square Root of Minus Nought, saw far out in space that spectral array of asteroids guided by the dynamic rays of the great central Sun. He saw them marshalled by the same force, directed from Venusia's colossal powerhouse, and crushing that proud armada into stardust, and as the flagship fled into the night he twisted his cigar stub in the corner of his mouth.

And once again the Pundit Oskhosh Obigosh hit the cuspidor at fourteen paces; then he uttered that famous dictum which endured to the end of Venusian time:

"GEE, BOYS, DIDN'T WE GIVE 'EM DE WOIKS!"

CHAPTER-TWENTY-THREE.

THE QUEEN OF PROTONIA.

When Hipper saw his superdreadnoughts being pulverised, he was not slow to realise that he was up against a power greater than his own. He had no wish to share the fate of the others, nor did he lose any time thinking about the rescue of the unfortunate crews. That would have been impossible in any case, but he was not the one to indulge in such heroics.

Just by way of a warning that it was time for him to leave, a mass of stellar projectiles came swishing down from nowhere, and skimming the armoured sphere rushed off into the black void of space. Then the Admiral turned and ignominiously fled. Making all speed back to his home base he landed easily, but when the hatch door was opened he reeled out a broken man.

"Give me air," he gasped, though the air-conditioned ship was well supplied with it. His dark hair had turned as white as chalk, his brow was furrowed deep, and his whole frame shook as if senility had suddenly descended on him. Naya, his wife, stepped out beside him. Her nerves were unshaken, but her temper was that of a raging fiend. All her hopes of an easy conquest, a triumphal strutting over the people whom she despised, had vanished. That ambition had been shattered by a grinding of cosmic cogs which not all the gangsterdom of Protonia could excel in ruthlessness. But Naya, admitting disaster, was not willing to accept total defeat. She still dreamed of salvaging some of fortune's wreck. If Venus could not be conquered there was still Protonia, and, as she well knew, a goodly part of it was by no means wholly subjugated by the lords of the New Angmagsalik.

Then, too, there was the sweet thought of revenge on this wrecked thing at her side. He was played out and could be broken as mercilessly as he had broken others. Naya had not forgotten the shame and humiliation of that day when this swaggering brute had shot down her defenceless plane and forcibly dragged her from it. Mark Hipper would get his in good Chicago style.

To her sharp-tongued taunts the once proud pirate chief could only reply with a whimper:

"Don't kick me when I'm down. Don't throw me in the ditch, Nayella."

Nayella cooled down immediately after her outburst. She knew who was master now and was quite content to bide her time and not waste words.

They entered the palace together and once more stood before the puppet Czar Terifa and his councillors. The Grand Admiral flopped silently into a chair. It was Naya who took the floor, and her clear, unwavering voice penetrated to the farthest corners of the hall:

"Dread Sovereign and Councillors," she began, almost purring the formal preface, then her voice rose:

"I have to report that, excepting the flagship, the whole of the Protonian navy has been destroyed, and I denounce the Chief Admiral, Mark Hipper, for cowardice, incompetence, and treachery."

A murmur ran through the hall, and the beaten admiral tried to rise to his feet:

"Ah, hell, what's the use?" he said, and flopped back into his chair.

The staggering news left the Council overwhelmed, but Nayella's persuasive oratory soon revived them. Never in universal history had the value of a universal language—their common heritage from old Mother Earth—been more clearly shown. Never had it been put to a worse use. Carefully choosing her words so as not to lead up too abruptly to her real design, she declared that, though armed force had failed miserably, there was still a bright field for tact and diplomacy. She knew her Venusia quite well and fully understood its people's outlook. She had always opposed an open attack on it, and that was her reason for persuading her husband to come and have a look at it; then she had tried to dissuade her headstrong mate from his wild plan, but in vain.

This lie was so magnificent that even her crushed husband could not fail to admire its brazenness. He signified his applause by calling her a name which was expunged from the record, and when the chairman's gavel had done pounding the table, the charming lady went on with her story. The Venusians were a lazy, good-for-nothing people able to defend their planet at a pinch, but too shiftless to take hold of another. Peace with Venusia would leave the lords of Angmagsalik free to settle the problem which really should have

been tackled before this mad venture—the thorough subjugation of the troublesome Greenlanders with their dangerous control of that vital metal potencium and their growing rebelliousness. Finally, Naya offered her services to negotiate peace with the Venusians whom she understood so well.

The Council accepted her offer and deputed her to negotiate. That meant victory for Naya. She knew that she had triumphed and had already fixed the price of her triumph. As she expected, there was little need for negotiation. A few messages flashed across space in the common language of the two planets served to assure the Venusians on the one hand that there would be no repetition of the onslaught, and the Protonians on the other that if there were the result would be even more devastating next time. As a publicity stunt it was given out by Naya that the question of marking the true racial boundaries of Jupiter and his nine moons had been raised, but the Venusians formally denied this.

As for indemnities, they quoted Citizen Obigosh:

"The show would have been cheap at twice the money."

So peace, perfect peace, reigned on the two planets, and endless streams of limelight poured down upon the brilliant young lady who had saved Protonia from an avenging invasion. The unfortunate Hipper was disrated and cast into durance vile. Nobody even remembered that he had once been the husband of the peerless goddess.

And with all this glory shining on his obvious successor, Czar Terifa chose the most opportune time to die. The Czars of Protonia might be autocrats, but at least they were tactful and, at times, most considerate. Soon everybody was saying that there was only one person worthy to be his successor. Naya knew who that person was and she was delighted, but why did this cool, calm and capable woman grab the title with both hands, even though she knew that by precedent and "ancient custom established from time immemorial" all good Czars in Gangstertonia were finally "topped off" by Jack Ketch the hangman? Did she rely on her woman's wit to save her, or did she think that a soapy-ropy death was a small price to pay for this brief burst of glory?

There are some things in human psychology which cannot be explained on rational lines. Far, far away from the rival planets of Venus and Protonia, there have been discovered incredible bipeds who, while mean enough to steal pennies from a blind man's hat, have been known to shell out bags and bushels of gold to buy an empty bauble, or title, from the political urgers who are known to "advise" on such matters.

So when the Council met again, its first job was to proclaim with thunder of guns, blast of bugles, and roll of drums that "our well-beloved Nayella Gaba, to wit, Bag of Nails in the classic tongue of Days Dead and Departed," was Queen, Czarina and Empress of Protonia.

The first official act of Gangstertonia's Queen was to demand the power to deal with ex-Admiral Hipper. This was readily granted, and the wretched pirate was dragged out of his cell. A few miles from the palace there stood one of the wonders of the Protonian world. It was a great geyser which, at regular intervals, spouted up a column of boiling water. Close to the vent of the geyser was an impressive natural formation, a gaily-coloured marble chair so perfectly formed that it might have been the work of an artist. It was known as the Devil's Seat, as the cascade of boiling water always fell upon it, leaving it shrouded in hot, sulphurous vapour for some time after the jet had subsided.

Into this chair the unfortunate ex-Admiral, loaded with chains, was placed an hour before the regular time of eruption.

There are leaders of gangsterdom whose courage matches their callousness, but Hipper was not one of them. He begged, whined, pleaded, and in fact did all that the sadistic Naya wished him to do.

"My dear Hipper," she said. "Do you think I have forgotten how you murdered my pilot and dragged me from that shattered ship? You ask for mercy: when have you ever shown it to anyone? When did you ever give the slightest hint that you could pity anybody? All along I have known that you would break me when you thought it was time to do so, but I got in first, my proud Mark. I am only doing what you have done to thousands—what you would have done to me. Death is nothing when it comes with soft and silent tread, but to you, sitting there on that marble slab, there will come a hundred deaths and a hundred memories of the deaths you have dealt out to others. Now, die, assassin, die!"

When Hipper had been disposed of, Naya called another council and boldly unfolded his plan for the settlement of the Stonelandia problem—that vexed question arising out of the dual nature of Protonian society; on the one hand a dominant race in Angmagsalik, on one side of the globe, on the other the conquered and subject people of Stonelandia. Naya, of course, submitted the plan as her own, but she could not improve upon it, and just as he had unfolded it to her she placed it before them.

They all knew, of course, that, although the subject Stonelanders were kept at a lower level of culture, they held a very dangerous weapon in the monopoly of that wonderful metal potencium, which, smelted with copper, produced an alloy more beautiful than gold and stronger and lighter than steel. The peculiar climatic conditions of the mining region, which made it impossible to replace them except by Greenlanders, who would endure generations of suffering before they were acclimatised, raised another problem, and for these dangers there was only one remedy.

Naya then calmly presented Hipper's suggestions in the form of a three-point programme:

(1) Extermination of the Stonelanders after securing all available stocks of potencium.

(2) Enslavement and acclimatisation of half of the army that conquered them.

(3) The building up of a chosen guard in Angmagsalik (the dominant part of the planet) to balance the enervated body of overseers in Stonelandia, and gradually destroy them.

The Council hailed this programme as evidence of their Czarina's genius. They fully endorsed it, and ordered the mobilisation of the armed forces which were to carry it into effect, but before their preparations were completed strange things were to happen.

CHAPTER TWENTY-FOUR.

THE TRUTH MACHINE.

"So my Lady Naya didn't gain too much by her spying trip."

It was the Pundit Oskhosh Obigosh who spoke. He was still standing in the big powerhouse as the last vestige of the racketeers' invasion fleet vanished from the sky. Beside him were Eric and Vera Morant and Floreto Mara. Vera had not spoken much to Floreto since the bomb murder. She had learned the whole truth of the gangsters' cruel plot and bore Floreto no grudge, rather pitying her in fact, but she had been very fond of her father and the tragedy stood between them. Now, in the face of that cosmic struggle in the sky she felt that, after all, her own loss was a very small affair.

She turned towards the Venusian girl with memories of that day when, lost and bewildered in a strange world, she had been comforted by Floreto's soft voice and cheery words of welcome. "Floreto," she said, and the gentle look in her big grey eyes added volumes to that single word. The impetuous Floreto did not wait to hear more. She rushed into Vera's arms and, sobbing, laid her head on her shoulder.

"How can you ever forgive me?" she whispered.

"My dear, there is nothing to forgive," said Vera. "You were only the blind instrument of a cruel plot. Oh, I understand it all well enough now. Don't let those assassins kill your spirit, too. They meant to kill or enslave us all, and they've got what was coming to them, haven't they?"

"Mighty glad to hear you say that," observed the Pundit quietly. "If there's any forgiving to be done I'm the one that should ask for it. I might have saved the lives of your father and Anders."

"How?" gasped Vera in open-mouthed astonishment.

"You see," said the Pundit, "we knew that that hellcat and her pick-up, Hipper, were on this planet. In spite of their clever disguise we traced them soon after they had landed, and it is my fault for not having kept a much closer watch on them."

"You knew," repeated Vera. Her eyes were hard and staring and the colour had left her cheeks.

"Yes, I knew," repeated the Pundit. "In fact, I more than hinted to you that day in my office that she would be off to Protonia and pick up with crook elements there. You know, you can't live on Venusia in these days of advanced psychology without betraying your general ideas to your fellow-men. I knew what Naya was, and I had more than a suspicion of what Protonia and its heads were, after our planes' pilots began to disappear there. I—and I say I because I fully accept responsibility for carrying out executive orders in the way I did—allowed Nayella and her soul mate to roam around here and see all that they wanted to see. I was even hopeful that they might learn the folly of trying to destroy this world, but if they were still determined on invasion and conquest, the sooner they made the effort and got it over and done with the better for the people of both spheres. But I solemnly assure you, Vera, that I didn't count on the assassination."

Vera turned silently away and gazed with tense face and dreamy eyes up to the great starry stream on which the atoms of the disintegrated Jovian fleet were drifting. Presently she turned and said quietly:

"Citizen Smith, if the loss of my father's life and his friend's was a necessary sacrifice; if only that stood between

us and the triumph of those gangsters, I gladly accept that loss."

Eric placed his hand gently on her shoulder. "They live still in their work for humanity," he said, and drew her gently towards him.

"Gosh, yes," said the Pundit unromantically, "and that reminds me. That machine of theirs."

"What's all this about the machine?" asked Eric, "and why was that pair of racketeers so anxious to destroy it?"

"Maybe they over-estimated its powers, and maybe they didn't," said the Pundit ambiguously. "It really isn't a war machine at all. Though the professors gave it a terrific name, it's quite an innocent affair—among innocent people like ourselves," he added smiling.

"But not in Gangsterland, eh?" hazarded Eric.

"You hit the nail right on the head, old boy. That reminds me that we've learned quite a lot about this mystery planet lately. You see, while Naya and her soul-mate were giving us the once over, we put our own team on Protonia, and a very interesting story they've been telling us over the spatial radio. It appears that there's a very different set-up over there. Not at all like Venusia, where there's one big family without any boundary fences and everybody's happy. In fact, there's quite a cauldron of trouble brewing and stewing. One half of Protonia is up against the other half. Our agents were lucky enough to land in a place called Stonelandia, where the human yeast seems to be most in ferment, and, without going into details, they found themselves jolly welcome there.

"Now, just as you say, Eric, it seems to me that the right place for this jolly old engine on which Klado and Anders toiled so hard is over there on Protonia, or, to be more specific, in Stonelandia."

"How do you propose to get it there?"

"Hop into my old bus and let's all four of us go with it," suggested the Pundit.

Floreto gave a little cry of delight, and tripped over to stand beside Oskhosh. "Smithy," she said, "you're a marvel. The *way* you say it—just like that. Won't it be perfectly thrilling? Will you pilot us?"

"Of course, of course. I'll ring up Rosebud and tell her I won't be back at the office for some time—if at all," he added.

"Oh, I'll ring up for you, shall I?" asked Floreto.

"Okay," said the Pundit.

Floreto rushed to the telephone booth and dialled the number:

"Hello, Rosebud; this is Floreto. Osky won't be back this afternoon. And *what* do you think? We're off on a trip to Jupiter with the Morants."

"How gorgeous! I'll close up early and take my boy friend to the pictures. And Florrie dear!"

"Yes, darling?"

"When you marry Osky, see that he buys good cigars. The ones he uses smell punk."

"Oh, Rosebud, really—!"

"Yes, I know, but you *couldn't* go popping off to Protonia with a bachelor unless you'd decided to marry him. Now could you?"

"Oh, break it down, Rosie."

"Besides, our Osky is a dear, and I just couldn't bear to think of him so far from home without a good woman to take care of him. Congratulations, Flo. Good-bye."

Floreto rushed back to her Osky in high glee. If Rosebud were so sure that he belonged to her, then he *must* be hers. That was that, and everything was perfect.

Preparations were soon made, and the voyage to Protonia passed off without incident. The Greenlanders' navy had been swept from the skies, and there was not even a patrol ship around as the great sphere carrying Eric, Vera, Smith, and Floreto Mara shot down through the Protonian atmosphere and zoomed to the ground.

The Mahatma had carefully chosen his landing ground. Guided by his agents, already established in the hostile camp, he brought it down gently on top of the great plateau where the potencium mines were operated by the slaves of Stoneland. Usually the first few days of a stranger's life on that high plateau were attended with much distress and suffering, as the human system accustomed to the heavier pressure of the lower atmospheric layer tried to adjust itself to the new environment. Besides the difficulty of breathing, there was the fact that water boiled at a much lower temperature, which made the preparation of food difficult. The Venusians had come prepared to meet the changed conditions and donned their oxygen masks, making themselves look like elephant-headed gargoyles as the great snouts hung down from the goggled hoods. The long snouts served as speaking tubes as well as respirators, and they were able to converse quite freely.

"Vera," said Eric to his companion as they paced the greensward of the new planet for the first time in their adventurous lives, "doesn't it seem strange to you that man has always considered himself a land animal?"

Through her weird goggles Vera looked down to her feet.

"I hope I'm walking on terra firma," she said, "or is it terra cotta?"

"Certainly you tread firm earth, my dear, but we're fish swimming in an ocean of gas. Walking fish if you like, but still fish."

"I feel more like a bird in this rare air," said Vera, "but I wouldn't like to be one of the poor fish that work in these mines digging copper or whatever you call it."

"Potencium, my dear. They alloy it with copper. If they had had it on our old mudball, the Earth, the bronze age would have made up the whole story, and there would have been no need for an iron age to follow."

"Well, mines may be very interesting, but I'm not for staying over to inspect them," said Vera. "The sooner we get down to sea level and get these Klu Klux Klan hoods off, the better I'll like it."

But the Mahatma was not quite ready to oblige her. For his own good reasons he wanted first of all to make an inspection of the potencium mines; so he descended to the bottom of the deepest shaft, observed the trend of the line of lode, and discussed mining operations with the diggers; then, ascending to the surface, proceeded to make a number of calculations.

"As I thought," he said cryptically. "Another lousy racket!"

"What does my Osky say is a racket?" queried Floreto Mara.

"This ore digging," said the Pundit, but he would not satisfy Floreto's curiosity any further.

With the help of an electric crane and a crew of brawny Stonelanders, Klado's machine was soon hoisted from the big spatial sphere and loaded into a runabout monoplane. The four travellers hopped in beside it and glided down to the level plain beside the Nile-like river—the ancestral home of the Stonelanders where they had dwelt for ages before Vahlen's conquering gangsters had swooped down on them.

This time, however, the conquerors' guards and overseers were not in evidence. The crash of the Greenlanders' navy in space had echoed thunderously in Stonelandia. The Greenlanders had tried hard to keep the news, or at least the extent of the disaster, secret, but in vain. The news flew around and it became the signal for a general rising. The hated guards and overseers of the ruling caste were overwhelmed, and preparations were made to resist the avenging invasion which they knew must follow.

It was in the midst of these startling developments that the Venusian party arrived and set up the Klado pulveriser, as Smith delighted to call it.

It was installed in a big stone building, where at any hour of the day the operator could have perfect darkness and perfect silence.

"But what does it do?" said Floreto, full of curiosity. "Looks like an old rattletrap printing press to me."

"Not far wrong, my dear. It is, in fact, a kind of long distance printing press—a spreader of mental daylight, the lineal descendant of the first chisel with which the ancient Gyppos carved the hieroglyphs of wisdom on the stones beside the Nile. Naya and her sparring partner seemed to have some idea that it was a stupendous affair capable of knocking planets to stardust. Well, that's all there is to it."

"A printing press," Floreto answered scornfully. "What can that do?"

"You'd be surprised," said the Mahatma. "It was the printing press, not Martin Luther, that made the Protestant Reformation. Had Marty been obliged to carry round a cartload of tombstones chiselling his theses on them, or had he been obliged to bake his burning words in clay like the Babylonian scribes, that great intellectual upheaval would have bumped like a flat tyre, but with the printing press he flooded all Europe with new ideas in no time.

"Actually, I'd prefer to name this jigger a Truth machine. You know the Latin proverb:

'Magna est veritas et praevalebit.'

"That means that Truth's terrific when it packs a wallop—but," he added significantly, "you've gotta pack de wallop."

"Romantic, rather," commented Eric sarcastically. "And how are poor Dame Truth's naked limbs to stop the Empress Naya's earth-shaking armour from grinding Stonelandia to dust?"

"Let me explain to you, citizen Morant, that, in a world like Protonia run by ruthless racketeers, the very keystone of the arch of the whole realm is lying—sheer, brazen, unrestrained lying. Oh, it's a great racket, crushing truth in every shape and form, and welding the human cattle into a great club to hammer down your rivals, but, you see, you can't work the racket without them, and the masses must have ideals. Invite them to cut throats for beer and skittles and they protest, but tell 'em it's all for high and lofty ideals and they're with you. Now, our charming Naya is working up a grand, gigantic, lie campaign. Listen!"

He switched off the light, and the room was plunged in darkness. On a screen at the far end of the room there appeared a group of people seated round an imposing and massive carved table. The familiar face and figure of Naya, very imposing in her royal robes, stood out among a group of strange councillors. Across time and space, and through supposedly impenetrable stone walls, Klado's machine had leaped to present a secret conference in that dread Holy of Holies, the Innermost Council Chamber of the Great Gangster realm.

A palsied, senile, little weasel with one leg, and the shoe of the other in the grave, was saying to Naya:

"It's the survival of the fittest. We select the chosen few to build up the new world, but don't you think, Your Majesty, that ten thousand is rather too many."

"I think not," replied the other self-elected "survivor". "By the time we have bumped off all the Stonelanders and worked their successors to death in that awful climate, Protonia will be an empty place. Let's not overdo it."

The Mahatma turned off the current and the picture vanished; then he turned on the light again.

"What on earth are they talking about?" asked Vera.

"That," said the Mahatma, "is just a charming little conspiracy of Naya's. She proposes first of all to wipe out the troublesome Stonelanders. After that she expects a lot of trouble from the very superior Greenlanders; so she'll wipe out all but a few of them, too. She wants to make Angmagsalik a preserve for the chosen few—the selected 10,000, but there will surely be ructions among them and another purge. That will be followed by more purges till only Naya and her Council survive. If she succeeds in bumping off the Council, then there'll only be the Empress left, and Naya is so crooked that she couldn't live on this planet alone without shooting herself in the back from ambush."

"Then what are we to do about it?" asked Eric. "Are we here just to make pretty pictures and talk about it while this atrocious invasion goes on. Why not bring the Venusian navy here and clean up Gangstertonia and its wicked queen?"

"Not so fast, Citizen Morant. There's no help like self-help. Let's find out first if the Greenlanders are willing to help themselves. We'll soon know what *they* think about it."

* * *

Throughout the realm of the New Angmagsalik, or Gangstertonia as the Venusians preferred to call it, radio, television, cinemas and mechanical loud speakers were busy with

the story of the threatened invasion of the cherished underworld by wire-whiskered savages from Stonelandia. It was freely stated that they had linked themselves with the unspeakable enemy, those degraded sub-humans from that dissolute planet Venus, whose very name suggested that the mothers of the race were no better than they ought to be. At the very border, it was stated, stood colossal superdreadnoughts capable of moving by sea or land, and plated with shining potencium-copper armour a thousand feet thick which shone with fiery rays that would melt stone. These were ready to steam-roller the realm of Gangstertonia, with all its beautiful culture and traditions, into the dust.

The army was mobilised, the army tanks rolled out on well-oiled bearings, and the air fleet was ready. Only the spatial sphere of the great armada were missing. The Venusians had attended to that, and no attempt was made to use Hipper's flagship for fear of misunderstandings with them. With bitterness Naya realised that stellar space now belonged to the Venusians, and she could only conduct a local garden party, with the Protonian sky the limit to a very inferior poker game.

The great central square of Gangstertonia's capital city was wide, spacious and imposing, but hard—hard as Naya's own conscience. Instead of a carpet of soft grass, it was surfaced with vari-coloured tiles. Only around the edges could a little verdure be seen at the foot of the palm trees, and between the palms stood huge statues in bronze or marble of all the great two-gun racketeers since the migration. Here was to be seen the immense double statue of the two master gangsters, Dey Vahlen and Vern Rayo. They stood face to face, machine guns on hip, enshrined forever in the act of performing the ancient and honourable custom of bumping off. Tradition had long ago elevated them to superhuman if not supernatural rank, and the most fantastic legends were related about them. At the foot of the statue was a small spring, which was said to have immediately gushed forth as the blood of the martyrs sprinkled the earth following the hot hose spray of turned on heat. By common report all manner of miracles had been performed by this spring water, from raising the dead to life, giving sight to the blind, and changing wooden legs into living flesh, to procuring quins and sextuplets.

In the centre of the square stood a great rostrum, and it was here, when the working day had ended and all were free to listen, that the Empress was to deliver her vital message to the Protonians. In the long nights of that dark side of the Jovian satellite, which like the Earth's Moon showed only

one side to the parent planet and derived but a faint light from the distant sun, the sky was easily darkened even by the lightest clouds. Hence it generally happened that, rain or no rain, there was a dark canopy overhead, and on this occasion it seemed to be darker than ever, forming a striking background to the brilliant lighting of the square.

Hours before the appointed time, the crowds and the soldiery began to arrive. Around the rostrum a ring of armed forces was formed up with brass bands and blaring bugles. Martial music filled the air, and from time to time there came the braying notes of the loud speakers, shouting slogans such as "Long live crime"; "Hooray for gangsterism"; "Gun rule forever"; "Give us hell and keep us happy"; "Put the boot in: we love it"; and so on. As mechanically as the instruments, the crowd repeated these slogans from time to time and engaged in well-regulated cheering.

Then the Queen ascended the rostrum.

Majestically she strode up the stairs, the little diamond crown surmounting her black locks. In her own hated Venusia those diamonds would have been worth "Hot peanuts, five cents a bag!" but it could not be denied that she wore them with grace. Over her fine broad shoulders an ermine robe was flung, and she carried a lace of brilliant diamonds where custom ordained that her predecessors should carry a rope. Two little curly-haired page boys were train-bearers for her long robe, and her high-heeled jewelled shoes enhanced her height. Never had Protonia seen a more majestic queen, and as she turned to face her subjects there was a tense hush.

"This," thought Naya, "is the greatest moment of my life." Alas, it was to be her most humiliating one.

Slowly and deliberately the Empress began her talk, and as her deep, powerful, contralto voice, low at first, grew to its full volume, it penetrated to the farthest corners of the vast square, scorning the mechanical aids that had been made ready for her.

As the gangster Queen proceeded, she poured out in smooth, resonant tones a string of falsehoods which caused even the hardened, shrunken and shrivelled little ghouls of the Innermost Council to hang their heads for shame. If lies had been lice, Jove's nine satellites would have scratched themselves to dust at the recital. She accused the unfortunate Stonelanders of conspiring with the Venusians to degrade the Greenlanders to the lowest depths of misery. She declared that Venusia was a land where the dead bodies of starved millions lay piled up in the streets, that Angmagsalik was the only free spot in the universe, and that the

Stonelanders' revolt was an organised slave raid designed to put the free people of the planet into chain gangs to work the potencium mines.

And all the while as her musical voice flowed on without interruption from her hearers, a sense of strange, questioning uneasiness seemed to disturb the crowd. No one voiced the question, but everyone was thinking, "What racket is being worked now?"

Then suddenly there flashed out on the dark sky overhead in huge, crimson letters, scintillating with dancing fire, a message in that ancient language, the legacy of old Mother Earth to her exiled children:

FIBASTARDACHEGULINO VI MENSOGAS!!!*

The latter part of the message equalled the retort of King Arthur's knight to the vile varlet who held the Lady Lyonors to ransom: "Dog, thou liest!", and just as the princely Gareth added, "I spring from loftier lineage than thine own," the first part made an unflattering reference to Naya's parentage.

Naya was no Daniel, and the origin of that celestial "Mene, Tekel, Upharsin," which made Belshazzar's cabaret look as cheap as a Haymarket chop suey, was a complete mystery to her, but far, far away on the other side of that unhappy planet which was about to see the dawn of a brighter day there stood, in a darkened room, a pot-bellied pundit. The inevitable cigar, ash-screened almost to a brown-out, was stuck jauntily in his mouth, and with a weird sense of location he still hit the cuspidor at the other end of the hall even in pitch darkness. He was fitting a printed slide into Klado's machine, and the rays of dark light (rays from the invisible band of the spectrum) projected through it, even to the other side of the globe, impinged on the black but fluorescent clouds of the Angmagsalik sky lighting just where they touched. Result, a sparkling sign which would put a million neon advertisements to shame. And to the crowd in the great Vahlen square the real surprise was to come. It was the wording of the second slide.

That news flash told the story of the real conspiracy which Queen Naya and her shady directors were about to foist on the deluded people. It told of the cruel plateau where the deluded masses of Angmagsalik were destined to replace the butchered Stonelanders in a life of lingering death. It told

*Translation of Esperanto word, or compound of words, FIBASTARDACHEGULINO: Fi, an expression of scorn; bastard, base-born; ach, an expression of contempt; eg, big; ul, a fellow; ino, feminine suffix. Equal to: Great, big, dirty, low, base-born, female rascal. "Vi mensogas" equals "You lie."

them of the routine order of mass murder; first the Stonelanders, then the enslaved Greenlanders, and finally their armed guards, till only the select ten thousand survived.

"And now," concluded the message, "I assure you on the word of the representative of the free people of Venusia that I, the Pundit Oskhosh Obigosh of the Seven Veils Unveiled and to whom the Mysteries of Heaven are but as the Square Root of Minus Nought, having examined the potencium mines of Protonia, have found that the whole system of working same is a lousy racket. I can drive a twelve mile tunnel from the base of the plateau into the line of lode and make the whole diggings as healthy as a flower garden."

The effect was stupendous. A mighty roar rose from the crowd, and a brand new slogan resounded through Vahlen Square: "Down with the gangsters!"

Naya was cool even in the face of disaster. She promptly ordered the guards to clear the square, but it was too late. The guards themselves were very half-hearted about it. They knew that their lives, too, were but as dust in the balance to those who had concocted that vast and diabolical plot Having cleared a space round the rostrum, they simply halted their horses, sitting still in the saddles, and allowed the crowd to creep back again under their horses' bellies. In less than no time Naya was dragged down, and she and her associates were cast into prison. Within an hour a provisional government had taken over.

* * *

As if to welcome the dawn of a new era, the distant sun was shining on Protonia through a sky for once free of clouds. There were no more Greenlanders or Stonelanders now. Notes immediately exchanged between the two governments had ended all that, and Protonia's people were now one as Venus's had been for ages. Naya lay in hospital, and her cousin Vera, with her husband and their two companions, had hastened to be with her at the end.

CHAPTER TWENTY-FIVE.

EXIT NAYA.

Nayella Gaba, Queen, Empress, and poor wandering mortal far from home, lay dying.

And Naya welcomed death, for this was the end of a long day, if not a perfect one.

Beside her in the prison hospital stood the Morants and their two companions, Oskhosh and Floreto Mara.

The dying woman looked up into her cousin's pitying eyes, for, with all her faults, Vera still loved her cousin:

"I backed the wrong horse, Vera, but I had a glorious run for my money. The old grey mare Venus was the goods all right and Protonia an also ran, but tell the world, cousin dear, that I die with a clear conscience. I did my best in the circumstances I was pushed into, and who could do more?

"Oh, I'm so glad it's over. Why was I dragged out of Darlinghurst to be Queen of this punk outfit? I swear, Vera, that many a time I'd have given it all up for my own little flat and my own wee pet mouse, sweet little Winkypoo."

The roar of the angry, rebellious mob, shouting curses at her, floated through the window, and the dying Queen's fighting spirit fluttered again.

"Hear the cattle," she said scornfully. "I only made a mistake in percentages. I tried to bump off ninety per cent. of 'em in one slap, and the dirty cows couldn't take it. If I'd been content with ten per cent. I could have burned 'em alive publicly on Vahlen Square, and the other ninety per cent. would have gone plodding by with eyes to the ground, on their way to the daily grind of toil. The sheep, bah, the stinkpots!!"

Flo, clinging close to her companion, whispered, "What is she dying from?"

"A bad attack of survival of the fittest," replied the Pundit.

"You mean—?" queried Eric.

"A cancer," said the Pundit, "but none such as you've ever heard of. This case is unique in all the history of the universe."

Through the mists of death, Naya's vanity rose like the sun on a foggy morn:

"My, isn't that just *thrilling!* What a bonzer funeral I'd have had if I'd only remained Queen of Protonia!"

"What brought it on?" asked Eric.

"First let me explain just what cancer really is," replied the Pundit. "In your first life-time, Citizen Morant, a lot of ill-informed people spoke of 'the roots of cancer.' They might as well have spoken of the roots of the rolling tide or the flowing air. You know that all living things are made up of tiny cells, and when, due to some chemical change, a cell or group of cells starts a frantic growth and begins to devour the surrounding cells, that is cancer. The surgical remedy, I might add, was like chasing atoms with a carving knife."

"Then what has that to do with the survival of the fittest?"

"It is Nature's finest commentary on the egotism of those who, having selected themselves as the fittest, brazenly assume an identity between wild nature and a social or artificial environment. Here, then, is Nature's answer—the magnificent and virile domination of a good sarcoma devouring its weaker neighbour cells. Vahlen, Rayo, Naya, yea verily and likewise Bejabers y Begorra—all these were pre-eminently fitted to survive as a social sarcoma."

"Oh, stop," protested Vera. "Haven't you a heart, man? My cousin lies dying there, and you're discussing her as if she were a bag of chaff."

"Don't stop him, dear," said Naya. "Go on, Doc.! Gee, you're tough, but not half as tough as I was."

"A wonderful patient," said the Pundit in his best bedside manner. "A splendid patient. Presently, my dear, you will vanish completely before our very eyes. A glorious death. Your poor system has been so upset in every electron of every atom of its make-up by the enormous strain of your voyage in space and time, and your utter incapacity to adjust yourself to your environment, that you'll just go up like the One Hoss Shay,

'All at once and nothing first,
Just like bubbles when they burst.'

"Even a common sarcoma often has a psychological basis. Worry, unemployment, anxiety may be important inducing factors, but in your case the cumulative effect of cosmic forces has been devastating. Presently each atom will fly apart and every single electron float down the stream of time. Look, folks, there goes one foot already."

He was right. Naya was lying on a couch with a light gown over her, and they could plainly see that her right foot had disappeared. It was quickly followed by the other, then her arms, trunk and head, till at last there remained only the imprint of her head on the pillow.

"News flash," said the Pundit, eyeing the vacant pillow. "Another big gangster gone into smoke!"

"Bill Smith," screamed Vera, "you're just being horrid."

"But she's gone now," observed Eric fatuously.

"Well, my little pearl," said the Pundit, drawing Floreto closer, "what about settling down right here in Protonia? You know I've got a job of work digging that twelve-mile tunnel to the potencium mines, and there are other things besides. I think that Protonia is a place with a future—work, struggle, combat, something to achieve, something to fight for."

"That's exactly what I think," said Eric. "Venusia is so utterly perfect. There is absolutely nothing to improve upon there, and that makes it a trifle dull."

"That's what I think, too, darling," Vera echoed. "Our future task is right here."

But Floreto did not say what she thought. Anywhere was good enough for her so long as she was with her Osky.

THE END.

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