

EVICTION BY ISOTHERM

Malcolm Jameson

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EVICITION BY ISOTHERM

by Malcolm Jameson

A new author shows that the weatherman isn't always wrong—and that he can be a bad man to argue with!

New Year's Eve! Over the world people abandoned themselves to sheer joy at the release from the intolerable strain of the past two decades. For this was not the dying of a hateful year only, but of an unspeakably ghastly century—a century whose final years had been one awful crescendo of slaughter and destruction. Men and women crawled from their subterranean shelters and mingled gayly among the wreckage of their cities. In their hilarity they did not see, or pretended not to notice, the ineradicable lines of ingrained fear etched on every countenance. Fear generated and fed by

the deluges of Feroxite bombs, of incinerating heat rays, of bromine clouds, and of the horrible neuronæmia germs.

For on this morning, the last day of the Twentieth Century, a lean, silvery cruiser of Panamericana, one of the few survivors of what had been an impressive fleet of many thousands, had dropped down on Teneriffe from the stratosphere to meet peacefully the squat, cup-shaped aerial flagship of the Eurasiatics, itself a remnant of a once fearsome horde. Even the grasping and ruthless rulers of Eurasiatica had recognized that unless this war was halted, there would be no human race to enjoy its victory. In spite of vastly greater numbers, they had been held to a costly draw by the Panamericans through the latter's adroit use of the miracles of applied science. The war was a stale-mate. For years now, it had been a suicidal deadlock—a stupidly continued mutual destruction of peoples already ruined and exhausted. The armistice, bringing a pause in the useless carnage, was signed at high noon. By nightfall the world knew and rejoiced.

But not all gave themselves over to unthinking celebration. In an inner chamber of the North Regional administration building in the Idaho Rockies, the supreme directors of Panamericana affixed their ratification to the ten-year armistice proposal in gloomy silence. The Secretary had hardly left the chamber to broadcast the news to a jubilant hemisphere, when the Chief Commissioner gravely voiced the thought that was in every mind present.

"Ten years!" he said, slowly and distinctly, gripping the table's edge until his knuckles nearly burst their skins, "then

the beginning of the end! Gentlemen, what we have negotiated is a breathing spell—the lull before the last act in the tragedy of our race. Do not deceive yourselves. There can be no peace with an organization dominated by the Neo-Aryans. In 1957 we signed a treaty guaranteeing to us the freedom of the Americas, for which we resigned all our other interests in the world. Yet four years later they attempted our conquest. Again, in '75, we made still other agreements. You all know how worthless those assurances were, and how useless our subsequent concessions. Even today, as they offer us this armistice, I learn that they are developing newer and more hideous weapons and that production has already begun in their fortress-laboratory in the mountains of Scandinavia. Their readiness for a truce is explained; they want these ten years to perfect their machines for one irresistible push. We must, whatever our preference, be ready to meet it. I tell you now, that when this armistice expires, we will be faced with but one choice—exterminate or be exterminated!"

Dr. Barnes, bearded and spectacled, the Coordinator of Sciences, arose.

"Gentlemen," he said quietly, "what the Chief Commissioner has just said is true. But it is true only so long as present conditions remain unaltered. It is within our power to alter them. I cannot agree that it is necessary to exterminate the Eurasiatics to secure a lasting peace. We need only destroy the breeding place of the pernicious ideas of conquest. Let us, at one stroke, render Europe uninhabitable. Then we may hope to negotiate a real peace with the rest of mankind."

The members of the council sat looking at Dr. Barnes, puzzled at the unexpected speech. He continued, his eyes blazing as he wanned to his theme.

"As man to man, none of us has any quarrel with the European. You—I—all of us—are but transplanted Europeans. The European *outside of Europe* is not a predatory creature, not even quarrelsome. In the building of the old United States we saw millions of them of every Old World creed and nationality live and work peaceably together. Our race today is a blend of them. Yet all the while their cousins across the water were butchering each other on account of age-old prejudices. Every one of the important old-time capitals of Europe is haunted by the memory of a day when it almost ruled the world, and the ruler who sits in one of those thrones sooner or later acquires the obsession that he, too, is destined to control a great empire. My contention is that that evil heritage is local, not racial. We must deal with a ghost, not a people, a megalomania rising from the blood-soaked soil of a continent with *too much* tradition! I propose, gentlemen, that in the interest of all humanity, we make ready to force the abandonment of Europe!"

He sat down among the excited buzzing of the council. No more extraordinary view had ever been seriously stated before them. The Chief Commissioner was as astonished as any other member of the group. For many years he had been in more or less close association with the staid scientist and knew him to be indefatigable, resourceful, even brilliant, in

his silent way. But tonight he had spoken with passion, and his arraignment of the inanimate continent of Europe was as unexpected as his proposal to depopulate it. Yet, in other years, Dr. Barnes had offered programs that at the time seemed too fantastic for a sane man's consideration. Today, many of these were functioning as commonplace details of a highly technical civilization. The Chief thought best to approach this new idea with cautious open-mindedness. With a trace of irony in his voice, he spoke.

"Dr. Barnes, for the past many years your organization has been working day and night ostensibly to help us defend ourselves from these raiders from Europe. If you knew a way to render that continent uninhabitable at a single stroke, I deplore your reticence in keeping it a secret while we were wasting men and ships in futile and costly nibbling at it."

"Because," replied Dr. Barnes, with dignity, "time and equipment were not available. Such a stroke will require elaborate preparations. Furthermore, its consequences will be so grave that it should be invoked only by those mad-men themselves. Now, we may prepare it secretly, as a purely defensive measure. If they keep the peace, it will not come into operation. But should they violate the treaties with a sudden, vicious raid—as they have done on every other previous occasion—that very act will set their doom in motion. The calamities that will thereafter befall them will be virtually self-inflicted. Our national conscience will be free of guilt."

These words gave promise of something more tangible. The Chief Commissioner cared little for any theory about the

Europeans, but as a weary and experienced director of relentless warfare he saw here the promise of another weapon. If there could be such a one powerful enough to destroy a continent at a single operation, he wanted to know of it. That war was certain to be resumed, he had no doubt. This might be the deciding factor. He invited Dr. Barnes to reveal the details of his plan.

The hearings required several days. Dr. Barnes successively introduced his two technical assistants in the plan, young Stanley, of the meteorological bureau, and Professor Stevens, the vulcanologist. It was Stanley's painstaking report that formed the basis for the discussions. The bulky portfolio, bulging with maps, was marked "Plan M-4", the only title by which it was afterward made known to the world. Eventually Henry Thatcher, Director of Construction, was called in for estimates and budget requirements. It was soon apparent that the figures involved were colossal and that ten years was hardly long enough for what was to be done.

The Chief Commissioner whistled when he examined the program. Besides all this, he must rebuild the sky fleets and rehabilitate the army. There were hundreds of ruined cities to be cleaned up and reconstructed. Combined, these activities would tax the mechanical and manufacturing resources of the hemisphere to the utmost. He felt that prudence required that the Eurasiatics be met with the tried and proven old weapons as well as the new.

Yet this new idea appealed to him. It was breath-taking in its boldness and in its simplicity. But—would it work? A

week of heated day and night session of the council brought the decision. It had to work. Nothing else promised more than a long, drawn-out continuance of the old struggle. Experience had taught them that the most hopeful end of that would be another truce of exhaustion. The project was authorized.

Henry Thatcher stood on the summit of a low peak some thirty miles to the westward of Mt. Irazu, in the Cordillera de Salamanca, watching the action of two of his giant "moles" on the beach below him. The Caribbean, once ninety miles distant at this point, now lapped the shore not five miles from where he was standing. The "moles" lay diagonally across the water's edge, like two stranded whales, half in, half out of the water.

The metal monsters, plated like armadillos, crawled imperceptibly toward the foot of the mountain. They were a matter of three or four miles apart, eating their way into the land that had once been Costa Rica. Each of them was five hundred feet in length and correspondingly thick. From its seaward side a huge suction hose dipped into the sea, on the other a massive tube of metal, more than fifty feet in diameter, led away over the land to the north. Following the tubes with his high-power glasses, Thatcher lost them in the haze of the distant horizon.

The crunch of approaching footsteps caused Thatcher to lower his glasses. Dr. Barnes and Stanley came up to him and exchanged greetings. He was expecting them, as they had

notified him only a few days before that they were making one of their frequent inspection trips.

"How are the 'moles' behaving," asked Dr. Barnes, "since you started using the new solvent?"

"Great!" exclaimed Thatcher. "We've stepped them up from half a million cubic yards a day to almost two-thirds. The stuff is more fluid, too, than with plain sea-water. We are pushing the muck north now at a rate of twelve miles an hour through the discharge pipes. Next week we can cut out numbers 18 and 45 booster stations and send the men home."

The party turned their backs on the two grubbing dredges and a few steps took them to where they could see the Pacific Ocean. Here, the waves broke against the foot of the mountain. On this side the work was finished. Over to the southwest the watery horizon lay approximately where the shore line and some towns used to be. The formerly distant Gulf of Nicoya was a thing of the past.

Thatcher pointed downward and a little to the right to a glistening outcropping of vitreous rock slanting down the mountainside.

"Ray-gun scar," he informed them, laconically. Dr. Barnes regarded the glassy run of congealed fused rock with a face set grimly. Here was another memento of some skirmish of the air. In this place, probably, a swooping Eurasiatic had overshot his prey and the dazzling lance had slashed against the inert peak below. Of all the areas, this isthmus, from Honduras to Colombia, had been the most incessantly

ravaged by the invaders. Not one of the inhabitants of this region had survived the last war.

"What is your depth out there?" inquired Stanley, pointing at the Pacific.

"Fifteen hundred feet, minimum," replied Thatcher, "right in to the cliff. This range stands up pretty well for the most part and we can cut close. In some places there have been slides, but no big ones."

"That doesn't matter," said Dr. Barnes briefly. Then, "I see you are a few months ahead of your schedule. That's fine!"

"Yes," agreed Thatcher, "I always feel better a little ahead than behind. We are on the safe side with the Feroxite tunnels, too. All the shafts are down to depth, and about thirty per cent of the traverses finished. In another year we can commence boring out the big storage chambers."

Dr. Barnes was well satisfied with the progress. In these seven years, Thatcher and the Panamerican construction crews had accomplished marvels. The clumsy "moles", in spite of their uncouth appearance, were uncannily efficient in their task of dredging away the lower flanks of the isthmus. This voracious implement, an invention of Thatcher's, softened bedrock by impregnating it with a solvent mixed in sea-water then ground it to a paste within its vibrating interior. When fine enough, more water was added, and the

resultant mixture was ejected into the waste tube that carried it hundreds of miles north to the dumping ground.

In each of the successive wars, the Eurasiatrics had first of all struck at the canals of Panama and Nicaragua. When Thatcher had come to the isthmus after the armistice, he found two mangled ditches that must be cleaned out, straightened and rebuilt. This task was a trifling one compared to the larger order of Plan M-4, which called for the narrowing of the isthmus to leave nothing but the crooked backbone of the central range of the Cordillera. Thatcher was faced with the problem of removing all the shoulders and the plains from the northern canal, eastward to the eighty-second meridian, leaving in their place deep water. It was for this tremendous job that he had devised the "moles".

Twenty of them had been built and put to the relatively easy task of clearing away the Pacific side—easier, because there was less of it, and the removed earth could be spilled in the near-by deep water. There, the thousand-fathom curve was close to shore. But on the Caribbean side, Barnes and Stanley had ordered the earth conveyed far north to where the easternmost corner of Honduras made a cape. This forced the lengthening of the huge spill pipes and the interposition of a number of booster pumping stations. It was to have a look at the made land at the dump that led the inspecting party to leave its vantage point and go down the slope a few hundred yards to where their reconnaissance cruiser awaited them.

This machine was of the counter-gravity type, a thing of beauty in its delicate control, silent and smooth in operation, and ideally adapted for hovering. As they soared away into the north, keeping low so that they could observe the encroachment of the scattered "moles" strung out along the shore line, Barnes sat in the rear compartment with his chief constructor and silently examined the terrain flowing by beneath. A long string of buildings on the mountainside soon came into view. That was a part of the "blind", supposed headquarters of the mythical *tromium* mines.

The government, itself a master at the art of espionage, had early, through planned indiscretions, permitted the misleading news to leak out that the soil of the isthmus was rich in *tromium* ore. Since then, the director of the spy-defense section had gained some amusement and not a little profit by seizing a number of Eurasiatic agents trying to burglarize laboratories to secure specimens of the metal. There actually was no such metal, but the imaginary properties ascribed to it were so marvellous that it served nicely to explain the magnitude of the mining operations in Central America. The Fleet Command had coöperated nicely with some wishful thinking in "discovering" *tromium*. Its "properties" were a nice combination of all the things they wanted and didn't have.

Dr. Barnes noticed, on a flat landing platform beyond the buildings, the spread wings of three old VSF-6 machines, glistening under a new coat of silveroid. He pointed at them in surprise, as the type had been obsolete for many years.

"Bait!" explained Thatcher, grinning.

Dr. Barnes bristled slightly at the other man's frivolous attitude toward so grim a matter. Himself a lofty idealist, he scrupulously refrained from allowing his emotions to become involved, even if, as now, he was planning the banishment of an entire race from its homeland in the greater interest of all men. He remarked, a trifle coldly, "You seem to enjoy your work, Mr. Thatcher!"

"You bet I do!" replied his companion, but the smile had vanished. "My mother, wife, and the three youngest children were in the so-called 'respected zone'. It was neuronæmia they dropped there, if you recall. That was the time we first heard of it. And my son Charles was in charge of your Thermo-dynamics laboratory the night——"

"I am sorry," said Dr. Barnes, soberly. "I keep forgetting."

Little else was said for the rest of the trip north. Above the Rio San Juan they passed over miles of warehouses where the Feroxite was being accumulated. The tens of thousands of tons to be required during the last year was too stupendous a shipment to cope with in a single year. These planners, with their customary forethought, had commenced the accumulation of it early. Now there were considerable stores of it at both ends of the cuts.

At the point where Cape Gracias a Dios had stood for centuries among the shoals and pinnacles of the western Caribbean, they now could see the landward end of a slender peninsula stretching away to the east-northeast. Eight of the

big spill pipes ran along it, side by side. Through them rumbled the soupy mixture of ground-up isthmian bedrock. On past where Gorda Bank with its skeletons of ancient galleons had lain, even to Rosalind Bank, the fat tubes went, and then curved out of sight into the water.

"There are no more shoals; this will be all the dry land we can make," said Thatcher, gesturing toward the tip of the peninsula where the pipes plunged into the sea. "The muck is now being spread over the bottom between here and Jamaica. We cannot avoid some loss, as the current is raking part of it into Harriett Deep. But if my estimate of the amount we still have to move is correct, we should be able to shoal this passage to somewhat less than a hundred fathoms."

Stanley was in the center compartment, feeding charts marked with odd-shaped punch holes through an integrating volumometer. Stepping to the auxiliator on the side, he cranked in gradient, friction and viscosity factors. He read off the answer from the annunciator dial.

"There is nearly enough now," he called back, "but let it run. The bigger the factor of safety, the better."

The next evening the party rested in the living room of Professor Stevens' bungalow, high up above St. Pierre. They had spent the day looking over the control panel of the valve room of one of the radial injectors of Mt. Pelée. Dr. Barnes complimented Stevens on his ingenuity and tenacity in the highly hazardous and unprecedented assignment he had been given.

Never before in history had men deliberately sought to prime a volcano. Nor were they ready yet to do so, for first the delicate work of sinking a dozen shafts leading downward and inward to the hot explosive core had to be done. The problem was to drive them deep enough—but not *too* deep. These shafts were spaced more or less evenly on a rough circle about the base of the mountain. Water suction pipes of large diameter were brought up from the sea and connected to monstrous centrifugal pumps, radio-powered and wired for remote control.

Professor Stevens had supervised the work faithfully these anxious seven years and had now completed the underground work without serious mishap. There was yet much to do, as only one of the pump units had been installed. Pelée on Martinique and Soufrière on St. Vincent's were the two volcanoes he had drilled. Like the isthmus, these islands had been depopulated by the Eurasiatics, their cities erased. Their further wreckage would entail little loss to the world.

Stanley's Plan M-4 called for a major volcanic eruption, to be set off at the exact moment desired. Dr. Barnes, in approving the plan, thought it best to rig two volcanoes, in view of the uncertainty of control. If one refused to erupt, after being primed, there at least would be another one ready for the attempt. The volcanic explosion was not a vital part of the plan, but a highly desirable accessory, because of its accelerating effect.

They discussed a number of aspects of vulcanism that night, and it was quite late before they were ready to mire.

"You understand, Stevens," cautioned Dr. Barnes, "that an ordinary eruption will be just a waste of time. We must have a really tremendous explosion—something on the order of Krakatoa, or of Asamayama in the eighteenth century. Violence to the utmost! Nothing less will do. Are you ready to say you can produce it?"

Professor Stevens shrugged his shoulders and spread his hands in a gesture of helplessness.

"I am not prepared to guarantee anything. Maybe these mountains will blow up. Maybe not. I would like to push the injectors lower, but I don't dare. One might backfire, which would wipe us out, a thing I do not care for. But worse than that, it would bring on a premature eruption that might 'kill' the mountain for years.

"However, from what I have learned about the rock structure under here, I am inclined to think these fellows will explode within a week after we start the water down. As to the quality of the explosion, no prediction about what a volcano will do or will not do is worth the breath it takes to make it."

Dr. Barnes laughed and suggested they go to bed. After all, if Stevens didn't know, nobody did.

The following year, 2008, the ambassadors of both the major divisions of the human race set their signatures and the Great Seals on a treaty of perpetual peace, each promising

faithfully never again to encroach upon the other's hemisphere.

People of good-will hoped that the treaty would mean something, that the Eurasiatics would respect it. But, nevertheless, persistent and ominous rumors kept coming of gigantic offensive operations being perfected. Confidential reports from Panamerican agents in Europe brought confirmation. Travel of any sort was forbidden through certain areas, most especially the Scandinavian peninsula, and the great industrial tract formerly known as Poland. The unknown factor was the date, the day when the inevitable surprise attack would be sprung.

Two years later, Panamericana had finished its defensive program, as originally scheduled. Its stratosphere fleets had been rebuilt, the army in readiness. A reserve was at hand with which to hold back the Eurasiatics until the strange new weapon of Dr. Barnes was brought into play. There was neither desire nor intention of using these forces offensively; instead there was the solemn hope that they would never have to be used at all. But the Chief Commissioner was none too easy about the security of the nation. It could well be that the enemy had also invented some new, unguessable weapon. He could only wait, for to the cynical mind the last treaty was as meaningless as any that had gone before.

On the isthmus, all construction machines and crews had been removed. There were only skeleton forces residing at the two oceanic canals. Between them, the slender thread of the single range of the Cordillera was all that remained of the isthmus. These mountains were permeated by a system of

inter-connecting tunnels, with risers to appropriate places near the summits, and throughout were numerous large chambers. This network was packed with Feroxite in all its ramifications. Many of the explosion chambers were located far below sea-level.

At Trinidad, Professor Stevens was living in a bomb-proofed powerhouse, guarding his generators and the projectors of the radio power by which the great pumps of his encircling volcano injectors were to be operated. In the same tight building were the controls to actuate the valves of the injectors and to start the robot machines. He remained there quietly, making occasional tests. From time to time he would tour the two deserted islands and check the state of his equipment.

Quite by chance, in June of that year, Tomboro, a great mountain in Sumbawa, blew up with frightful abruptness in the greatest eruption in history. Within three days, the earth was treated to the spectacle of gorgeous sunsets everywhere. The sun, when it could be seen, was always ringed by an extensive reddish corona—the "Bishop's Rings" of the meteorologists. Stratosphere pilots complained of the haze and low visibility at all altitudes. Volcanic dust filled the upper air, all over the earth.

Stanley, taking advantage of this purely natural disturbance, had warnings broadcast to all portions of Panamericana. Local administrators were advised to take steps to provide against an approaching winter of extraordinary bitterness. The Chief Commissioner had certain exposed areas in Canada, Patagonia and southern

Chile evacuated. Everywhere, fuel in extra quantities was made ready and stored.

The high council received warning in October that the Eurasiatic breach of the treaties might come at any moment. Heretofore, most aggressor nations had chosen the spring as the time to launch wars, but in this instance the effect desired was surprise. The crafty rulers of Europe hoped that summer being past, the Panamericans would be less alert.

In three great divisions they came across the Atlantic, one in the far south, one in the north, and the central one to occupy the Caribbean area to sever communications between the two Americas. Both in the south and the north, equally great fleets rose up to meet them. The old, old, meaningless round of slaughter and destruction, of merciless killing and burning—purposeless, because the two combatants were so exactly balanced in power that half a century of previous fighting had brought no result but universal exhaustion.

The central squadron, acting along its traditional line of attack, advanced straight to the Isthmus of Panama, bombing and sweeping with heat rays as it went. At Panama, part of the aerial destroyers stayed to complete the destruction of the force there, while the rest went on toward the Nicaraguan ditch. In time, they saw beneath them the houses built by Thatcher, the buildings they believed to be the celebrated tromium mines. The attacking vultures swooped lower, dropping their bombs as their sights came to bear.

With a blinding blast that made every seismograph in the world dance spasmodically, the Cordillera de Salamanca flew instantly into fine dust, rising miles high in the geyser of sea-water that went up with it. The bombing squadron above them, men and machines in fragments, went too. Even away to the east, above Panama, the other invading bombers were hurled sidelong through the air like chips in a typhoon, crashing into one another, exploding from the contacts of their own deadly loads, and scattered as crumpled wreckage far beyond into the agitated waters of the Gulf of Darien, or into northern Colombia.

There was no living thing for hundreds of miles around after the explosion of the gigantic mine of Feroxite. Where the Cordillera had been was now a gap in the isthmus two hundred miles long. Through it rushed the waters of the Caribbean, pouring to the west into the Pacific. Under water, the ragged stumps on which the mountain range had stood were being gnawed at and smoothed away by the steadily increasing current. The great Atlantic Equatorial current had found a gate to the west! No longer was it pent within the blind alley of the Caribbean and forced to escape through the Yucatan Channel to the Gulf of Mexico, where in turn it had no outlet but to double back and flow into the North Atlantic. The reason for the existence of those currents was gone. Straight ahead lay the best route.

In Trinidad, Professor Stevens heard the tremendous explosion. He needed no other signal. He closed his switches, The injectors to the roots of the Antillan mountains obeyed their robot valves and began feeding tons of sea-water into the hot sub-crater crevices, In a few hours one,

then the other, of the terrible volcanoes went into action with roars that made the vast Feroxite blast inconspicuous. Soufrière and Pelée had belched another cubic mile of dust into the high isothermal zone of the stratosphere.

Dr. Barnes and Meteorologist Stanley were waiting in Yucatan. Directing the same craft in which they had made their inspection tours, Barnes slid out of the prepared hide-out and hastened to view their handiwork. As they flew over the watery wastes where ten years before Costa Rica had lain, they were satisfied. The cut was clean. Only one small island marred the completeness of the blast. Not until systematic surveys could be taken would they know the full measure of their success, but they saw enough to give them confidence that their plan had been proved.

"Let them fight a little while, over the cities," said Dr. Barnes, with an air of finality, as he thoughtfully stroked his beard. "It is already November. Soon they will quit coming; they will be having too much trouble at home."

It was a terrible winter everywhere. The cold waves came early, stayed longer, and were more intense. The sun, veiled by the dusty stratosphere, gave little heat, except within the tropics. By December, sub-zero weather was being experienced throughout the country north of the Chesapeake.

The Eurasiatics, discouraged over the utter loss of the central contingent that had perished over the isthmus, and baffled by the unexpected stiffness of the resistance, were in

growing difficulties. The stratosphere was too hazy for high altitude work and the winds steadily increased in violence. Their position in the hostile skies quickly became untenable. Reluctantly, they withdrew and returned to Europe.

But there they found conditions far worse. Blizzard had piled on top of blizzard. North of the Alps, every valley was already filled with snow drifts. The Baltic soon froze and took on the appearance of the Arctic Ocean. The great base they had established in the Kjölen Mountains, filled with war supplies and the devilish cultures and chemicals for the last world struggle, became inaccessible. Unprepared for cold so bitter and so prolonged, the inhabitants, already bled of their vital reserves in the assembly of materials for the big push, suffered intensely. Soon they began to die in increasing numbers as they struggled desperately through the drifts and the icy blasts seeking the warmer south.

In the Americas it was somewhat colder than usual, but thanks to the warnings and careful preparations of their government, there was little real suffering. The country dug in and made the best of a hard winter. A close watch was kept on the skies, but the invaders did not return.

There was good reason for it. When March had ended, the North Sea was as frozen as the Baltic, and the shivering refugees from Britain crossed the Channel on sleds. Weather stations—before they were abandoned—reported that the Iceland "low", that beneficent guardian of Europe's climate, had first moved away toward Labrador, and had then dissipated. Mean temperatures had already dropped twenty degrees. The isotherms, those sinuous lines of equal

temperature, which had heretofore crossed southern Canada only to curve far to the north on crossing the Atlantic, were rigidly straightening out. Like creatures caught in the bight of a wire being drawn taut, the peoples of Europe were relentlessly being shoved out of their homelands.

Some stayed, tearing down the houses of frozen or fleeing neighbors for fuel. Spring would soon come and the hard winter would be gone. But spring did not come. Nor summer. The myriad tons—cubic miles—of volcanic dust in the high heavens intensified all woes by filtering out a large proportion of the incoming sunlight. The plains and mountains below, dazzling in the unbroken cover of snowy ice, reflected completely what little heat reached them. A new winter came, or rather, the year-old one became more dark and tempestuous. Other layers of ice and snow were laid above those already there. A new Ice Age had begun—a glaciation invited by the impetuous commander who had set off the blast that killed the Gulf Stream.

The Director of the Eurasiatics had shifted his capital successively to the south until now it was in Jerusalem. It was a strange Holy Land, a white waste of snow, but not so bitterly swept by the howling north winds as the continent left behind. It was here that he was to receive the full impact of the consequences of his ill-advised ambition to rule the Earth.

Reports from all sections of Europe were more and more disconcerting. Copenhagen, London, Berlin—all these had

been wholly abandoned, cluttered with ice and snow to the second stories of the buildings. The circulation of the winds had drastically changed. The prevailing ones were now from the north, and as the flow of heat formerly conducted by the Gulf Stream from equatorial regions to the Arctic was checked, the temperature gradient between the two zones steepened. Wind velocities were at hurricane heights.

Krevinsky, the chief meteorologist, who heretofore had been offering weak explanations, mouthing such phrases as "sunspot cycles," "solar constants," and the like, now knew that the great ocean current had actually been diverted. England was to become another Labrador, Scandinavia an eastern counterpart of Greenland. But what puzzled Krevinsky was the suddenness of the glaciation. Such a profound change could hardly come so quickly.

While he was pondering this enigma, further dismay was created in Jerusalem by the receipt of a curt notice from Hang-Chow, regional capital of the Oriental division, that the yellow race had asserted its independence of the Eurasiatic confederation. More and more in recent years they had come under the domination of the pacifistic Chinese. Asia now, as well as ice-bound Europe, was lost to the grasping dictator.

Zandorff, the director, recognizing his temporary inability to do anything but accept the secession, turned his attention once more to the situation in Europe. There had been other severe winters; this one would pass. He sent for Krevinsky, and demanded sternly for a long range forecast. He wanted to know *when* the government could move back to Vienna.

But by that time Krevinsky had learned of the two volcanic eruptions almost coincident with the great blast at the isthmus. Previously, his technicians had interpreted the recorded tremors as indicative of the delayed portions of the isthmian blast. Now he knew the worst.

"Excellency," he said, "hereafter the winters of Europe will all be cold. The Gulf Stream has ceased, and with it the Iceland 'low'. If that were all, the continent would be uncomfortable, but much of it habitable. But in addition to that, we will have no summers, and far more severe winters, until the dust of three tremendous volcanic eruptions settles. That condition prevails over the whole world."

"Why should that make a difference?" snapped Zandorff, impatiently. "Why are we worse off?"

"Because it starts the vicious circle of glaciation. The dust, being fine, scatters and disperses sunlight—but does not interfere with the outgoing terrestrial radiation of long wave length. We will lose much more heat than we will get for the next several years.

"The ground is already frozen deep and there are many feet of ice. Once the continent is deeply covered by a white, reflecting surface which cannot all melt in a summer, the solar heat will be merely rejected by the snow, and not absorbed. Every successive winter thereafter will add to the thickness of the ice.

"Excellency, until a great natural upheaval re-routes the ocean currents—we must abandon Europe to the glaciers."

Zandorff snarled in rage. He ordered his guards to drag Krevinsky away. "Execute the incompetent fool!" he screamed.

But the enormity of the folly of the last expedition had been realized at last by the long-suffering Europeans. Instead, they imprisoned Zandorff, pending his execution for high treason.

The council reconvened and sadly took up consideration of the project to emigrate into Africa and try to build a new nation among the colonies there.

[The end of *Eviction by Isotherm* by Malcolm Jameson]