Sidewise in Time

FOREWORD

LOOKING BACK, IT seems strange that no one but Professor Minott figured the thing out in advance. The indications were more than plain, In early December of 1934 Professor Michaelson announced his finding that the speed of light was not an absolute could not be considered invariable. That, of course, was one of the first indications of what was to happen.

A second indication came on February 15th, when at 12:40 p.m., Greenwich mean time, the sun suddenly shone blue-white and the enormously increased rate of radiation raised the temperature of the earth's surface by twenty-two degrees Fahrenheit in five minutes. At the end of the five minutes, the sun went back to its normal rate of radiation without any other symptom of disturbance.

A great many bids for scientific fame followed, of course, but no plausible explanation of the phenomenon accounted for a total lack of after disturbances in the sun's photosphere.

For a third clear forerunner of the events of June, on March 10th the male giraffe in the Bronx Zoological Park, in New York, ceased to eat. In the nine days following, it changed its form, absorbing all its extremities, even its neck and head, into an extraordinary, eggshaped mass of still-living flesh and bone which on the tenth day began to divide spontaneously and on the twelfth was two slightly pulsating fleshy masses.

A day later still, bumps appeared on the two masses. They grew, took form and design, and twenty days after the beginning of the phenomenon were legs, necks, and heads. Then two giraffes, both male, moved about the giraffe enclosure. Each was slightly less than half the weight of the original animal. They were identically marked. And they ate and moved and in every way seemed normal though immature animals.

An exactly similar occurrence was reported from the Argentine Republic, in which a steer from the pampas was going through the same extraordinary method of reproduction under the critical eyes of Argentine scientists.

Nowadays it seems incredible that the scientists of 1935 should not have understood the meaning of these oddities. We now know something of the type of strain which produced them, though they no longer occur. But between January and June of 1935 the news service's of the nation were flooded with items of similar import.

For two days the Ohio River flowed upstream. For six hours the trees in Euclid Park, in Cleveland, lashed their branches madly as if in a terrific storm, though not a breath of wind was stirring. And in New Orleans, near the last of May, fishes swam up out of the Mississippi River through the air, proceeded to "drown" in the air which inexplicably upheld them, and then turned belly up and floated placidly at an imaginary water level some fifteen feet above the pavements of the city.

But it seems clear that Professor Minott was the only man In the world who even guessed the - meaning of these_Lto us-clear-cut indications of the later events. Professor Minott was instructor in mathematics on the faculty of Robinson College in Fredericksburg, Va. We know that he anticipated very nearly every one of the things which later startled and frightened the world, and not only our world. But he kept his mouth shut.

Robinson College was small. It had even been termed a "jerkwater". college without offending anybody but the faculty and certain sensitive alumni. For a mere professor of mathematics to make public the theory Minott had formed would not even be news. It would be taken as stark insanity. Moreover, those who believed it would be scared. So he kept his mouth shut.

Professor Minott possessed courage, bitterness, and a certain cold-blooded daring, but neither wealth nor influence. He had more than a little knowledge of mathematical physics and his calculations show extraordinary knowledge of the laws of probability, but he had very little patience with problems in ethics. And he was possessed by a particularly fierce passion for Maida Hayns, daughter of the professor of Romance languages, and had practically no chance to win even her attention over the competition of most of the student body. So much of explanation is necessary, because no one but just such a person as Professor Minott would have forecast what was to happen and then prepare for it in the fashion in which he did.

We know from his notes that he considered the probability of disaster as a shade better than four to one. It is a very great pity that we do not have his calculations. There is much that our scientists do not understand even yet. The notes Professor Minott left behind have been

invaluable, but there are obvious gaps in them. He must have taken most of his notes-and those the most valuable into that unguessed at place where he conceivably now lives and very probably works.

He would be amused, no doubt, at the diligence with which his most unconsidered scribble is now examined and inspected and discussed by the greatest minds of our time and space. And perhaps it is quite probable he may have invented a word for the scope of the catastrophe we escaped. We have none as yet.

There is no word to describe a disaster in which not only the earth but our whole solar system might have been destroyed; not only our solar system but our galaxy; not only our galaxy but every other island universe in all of the space we know; more than that, the destruction of all space as we know it; and even beyond that the destruction of time, meaning not only the obliteration of present and future but even the annihilation of the past so that it would never have been. And then, besides, those other strange states of existence we learned of, those other universes, those other pasts and futures all to be shattered into'nothingness. There is no word for such a catastrophe.

It would be interesting to know what Professor Minott termed it to himself, as he coolly prepared to take advantage of the one chance in four of survival, if that should be the one to eventuate. But it is easier to wonder how he felt on the evening before the fifth of June, in 1935. We do not know. We cannot know. All we can be certain of is how we felt and what happened.

It was half past seven a.m. of June 5, 1935. The city of Joplin, Missouri, awaked from, a comfortable, summer-night sleep. Dew glistened upon grass blades and leaves and the filmy webs of morning spiders glittered like diamond dust in the early sunshine. In the most easternly suburb a high-school boy, yawning, came somnolently out of his house to mow the lawn before schooltime. A rather rickety family car roared, a block away. It backfired, stopped, roared again, anti throttled down to a steady, waiting hum. Then, voices of children sounded among the houses. A colored washerwoman appeared, striding beneath the trees which lined this strictly residential street.

From an upper window a radio blatted: "one, two, three, four! Higher, now three, four! Put your weight into it! two, three, four!" The radio suddenly squawked and began to emit an insistent, mechanical shriek which changed again to a squawk and then a terrific sound as of all the static of ten thousand thunderstorms on the air at once. Then it was silent.

The high-school boy leaned mournfully on the pushbar of the lawn mower. At the instant the static ended, the boy sat down suddenly on the dew-wet grass. The colored woman reeled and grabbed frantically at the nearest tree trunk. The basket of wash toppled and spilled in a snowstorm of starched, varicolored clothing. Howls of terror from children. Sharp shrieks from women. "Earthquake! Earthquake!" Figures appeared running, pouring out of houses. Someone fled out to a sleeping porch, slid down a supporting column, and tripped over a rosebush in his pajamas. In seconds, it seemed, the entire population of the street was out of doors. And then there was a queer, blank silence. There was no earthquake. No house had fallen. No chimney had cracked. Not so much as a dish or windowpane had made a sound in smashing. The sensation every human being had felt was not an actual shaking of the ground. There had been moyement, yes, and of the earth, but no such movement as any human being had ever dreamed of before. These people were to learn of that movement much lafer. Now they stared blankly at each other.

And in the sudden, dead silence broken only by the hum of an idling car and the wail of a frightened baby, a new sound became audible. It was the tramp of marching feet. With it came a curious clanking and clattering noise. And then a marked command, which was definitely not in the English language.

Down the street of a suburb of Joplin, Missouri, on June 5, in the Year of Our Lord 1935, came a file of spear-armed, shield-bearing soldiers in the short, skirtlike togas of ancient Rome. They wore helmets upon their heads. They peered about as if they were as blankly amazed as the citizens of Joplin who regarded them. A long column of marching men came into view, every man with shield and spear and the indefinable air of being used to just such weapons.

They halted at another barked order. A wizened little man with a short sword snapped a question at the staring Americans. The high-school boy jumped. The wizened man roared his question again. The high-school boy stammered, and painfully formed syllables with his lips. The wizened man grunted in satisfaction. He talked, articulating clearly if impatiently. And the highschool boy turned dazedly to the other Americans.

"He wants to know the name of this town," he said, unbelieving his own ears. "He's talking Latin, like I learn in school. He says this town isn't on the road maps, and he doesn't know where he is. But all the same he takes possession of it in the name of the Emperor Valerius Fabricius, emperor of Rome and the far corners of the earth." And then the school-boy stuttered, "He-he says these are the first six cohorts of the Forty second Legion, on garrison duty in Messalia. "That-

that's supposed to be two days march up that way." He pointed in the direction of St. Louis.

The idling motor car roared suddenly into life. Its gears whined and it came rolling out into the street. Its horn honked peremptorily for passage through the shield-clad soldiers. They gaped at it. It honked again and moved toward them. A roared order, and they flung themselves upon it, spears thrusting, short swords stabbing. Up to this instant there was not one single inhabitant of Joplin who did not believe the spear-armed soldiers were motion picture actors, or masqueraders, or something else equally insane but credible. But there was nothing make-believe about their attack on the car. They assaulted it as if it were a strange and probably deadly beast. They flung themselves into battle with it in a grotesquely reckless valor.

And there was nothing at all make-believe in the thoroughness and completeness with which they speared Mr. Horace B. Davis, who had only intended to drive down to the cotton-brokerage office of which he was chief clerk. They thought he was driving this strange beast to slaughter them, and they slaughtered him instead. The high-school boy saw them do it, growing whiter and whiter as he watched. When a swordsman approached the wizened man and displayed the severed head of Mr. Davis, with the spectacles dangling grotesquely from-one ear, the high-school boy fainted dead away.

II

It was sunrise of June 5, 1935. Cyrus Harding gulped down his breakfast in the pale-gray dawn. He had felt very dizzy and sick for just a moment, some little while since, but he was himself again now. The smell of frying filled the kitchen. His wife cooked. Cyrus Harding ate.

He made noises as he emptied his plate. His hands were. gnarled and work-worn, but his expression was of complacent satisfaction. He looked at a calendar hung on the wall, a Christmas sentiment from the Bryan Feed & Fertilizer Co., in Bryan, Ohio.

"Sheriff's goin' to sell out Amos today," he said comfortably. "I figger I'll get that north forty cheap."

His wife said tiredly, "He's been offerin' to sell it to you for a year."

"Yep," agreed Cyrus Harding more complacently still. "Comin' down on the price, too. But nobody'll bid against me at the sale. They know I want it bad, and I ain't a good neighbor to have when somebuddy takes somethin' from under my nose. Folks know it. I'll git it a lot cheaper'n Amos offered it to me for. He waited to sell it to meet his interest and hold on another year. I'll git it for half that."

He stood up and wiped his mouth. He strode to the door.

"That hired man shoulda got a good start with his harrowin'," he said expansively. "I'll take a look and go over to the sale."

He went to the kitchen door and opened it. Then his mouth dropped open. The view from this doorway was normally that of a not especially neat barnyard, with beyond it farmland flat as a floor and cultivated to the very fence rails, with a promising crop of corn as a border against the horizon. Now the view was quite otherwise. All was normal as far as the barn. But beyond the barn was delirium.

Huge, spreading tree ferns soared upward a hundred feet. Lacy, foliated branches formed a roof of incredible density above sheer jungle such as no man on earth had ever seen before. The jungles of the Amazon basin were parkilke by comparison with its thickness. It was a riotous tangle of living vegetationin which growth was battle, and battle was life, and life was deadly, merciless conflict.

No man could have forced his way ten feet through such a wilderness. From it came a fetid exhalation which was part decay and part lush, rank, growing things, and part the overpowering perfumes of glaringly vivid flowers. It was jungle such as paleobotanists have described as existing in the Carboniferous period; as the source of our coal beds.

"It-it ain't so!" said Cyrus Harding weakly. "It ain't so!"

His wife did not reply. She had not seen. Wearily, she began to clean up after her lord and master's meal.

He went down the kitchen steps, staring and shaken. He moved toward this impossible apparition which covered his crops. It did not disappear as he neared it. He went within twenty feet of it and stopped, still staring, still unbelieving, beginning to entertain the monstrous supposition that he had gone insane.

Then, something moved in the jungle. A long, snaky neck, feet thick at its base and

tapering to a mere sixteen inches behind a head the size of a barrel. The neck reached out the twenty feet to him. Cold eyes regarded him abstractedly. The mouth opened. Cyrus Harding screamed.

His wife raised her eyes. She looked through the open door and saw the jungle. She saw the jaws close upon her husband. She saw colossal, abstracted eyes half close as the something gulped; and partly choked, and swallowed. She saw a lump in the monstrous neck move from the relatively slender portion just behind the head to the feet thick section projecting from the jungle. She saw the head withdraw into the jungle and instantly be lost to sight.

Cyrus Harding's widow was very pale. She put on her hat and went out of the front door. She began to walk toward the house of the nearest neighbor. As she went, she said steadily to herself:

"It's come. I'm crazy. They'll have to put me in an asylum. But I won't have to stand him anymore. I won't have to stand him any more!"

It was noon of June 5, 1935. The cell door opened and a very grave, whiskered man in a curious gray uniform came in. He tapped the prisoner gently on the shoulder.

"I'm Dr. Holloway," he said encouragingly. "Suppose you tell me, suh, just what happened to you? I'm right sure it can all be straightened out.

The prisoner sputtered: "What-why--dammit," he protested, "I drove down from Louisville this morning. I had a dizzy spell and, well, I must have missed my road, because suddenly I noticed that everything around me was unfamiliar. And then a man in a gray uniform yelled at me, and a minute later he began to shoot, and the first thing I knew they'd arrested me for having the American flag painted on my car! I'm a traveling salesman for the Uncle Sam Candy Bar Co.! Dammit, it's funny when a man can't fly his own country's flag"

"In your own country, of course," assented the doctor comfortingly. "But you must know, sir, that we don't allow any flag but our own to be displayed here. You violated our laws, suh."

"Your laws!" The prisoner stared blankly. "What laws? Where in the United States is it ifiegal to fly the American flag?"

"Nowhere in the United States, suh." The doctor smiled. "You must have crossed our border unawares, suh. I will be frank, and admit that it was suspected you were insane. I see now that it was just a mistake."

"Border-United" The prisoner gasped. "I'm not in the United States? I'm not? Then where in hell am I?"

"Ten miles, sir, within the borders of the Confederacy," said the doctor, and laughed. "A queer mistake, sir, but theah was no intention of insult. You'll be released at once. Theah is enough tension between Washington and Richmond without another border incident to upset ouah hot-heads."

"Confederacy?" The prisoner choked. "You can't, you don't mean the Confederate States"

"Of co'se, sir. The Confederate States of North America. Why not?"

The prisoner gulped. "I-I've gone mad!" he stammered. "I must be mad! There was Gettysburg-there was-"

"Gettysburg? Oh, yes!" The doctor nodded indulgently. "We are very proud of ouah history, sir. You refer to the battle in the war of separation, when the fate of the Confederacy rested on ten minutes time. I have often wondered what would have been the result if Pickett's charge had been driven back. It was Pickett's charge that gained the day for us, sir. England recognized the Confederacy two days later, France in another week, and with unlimited credit abroad we won out. But it was a tight squeeze, suh!"

The prisoner gasped again. He stared out of the window. And opposite the jail stood an unquestionable courthouse. Upon the courthouse stood a flagpole. And spread gloriously in the breeze above a government building floated the Stars and Bars of the Confederacy!

It was night of June 5, 1935. The postmaster of North Centerville, Massachusetts, came out of his cubby-hole to listen to the narrative. The pot-bellied stove of the general store sent a comfortable if unnecessary glow about. The eyewitness chuckled.

"Yeah. They come around the cape, thirty or forty of 'em in a boat all o' sixty feet long with a crazy square sail drawin'. Round things on the gunnel like-like shields. And rowin like hell! They stopped when they saw the town and looked s'prised. Then they hailed us, talkin' some lingo that wasn't American. Ole Peterson, he near dropped his line, with a fish on it, too. Then he tried to talk back. They hadda lotta trouble understandin' him, or made out to. Then they turned around and rowed back. Actors or somethin', tryin' to play a joke. It fell flat, though. Maybe some of those rich folks up the coast pullin' it. Ho! Ho! Ole says they was talkin' a funny, old-fashioned Skowegian. They told him they was from Leifsholm, or somethin' like that, just up the coast. That they couldn't make out how our town got here. They'd never seen it before! Can y'imagine that? Ole says they were wikin's, and they called this place Winland, and says What's

that?"

A sudden hubbub arose in the night. Screams. Cries. A shotgun boomed dully. The loafers in the general store crowded out on the porch. flames rose from half a dozen places on the water front. In their light could be seen a full dozen serpent ships, speeding for the shore, propelled by oars. From four of their number, already beached, dark figures had poured. Firelight glinted on swords, on shields. A woman screamed as a huge, yellow-maned man seized her. His brazen helmet and shield glittered. He was laughing. Then a figure in overalls hurtled toward the blond giant, an ax held threateningly.

The giant cut him down with an already dripping blade and roared. Men rushed to him and they plunged on to loot and burn. More of' the armored figures leaped to the sand from another beached ship. Another house roared flames skyward.

III

And at half past ten a.m. on the morning of June 5th, Professor Minott turned upon the party of students with a revolver in each hand. Gone was the appearance of an instructor whose most destructive possibility was a below-passing mark in mathematics. He had guns in his hands now, instead of chalk or pencil, and his eyes were glowing even as he smiled frostily. The four girls gasped. The young men, accustomed to seeing him only in a classroom, realized that he not only could use the weapons in his hands, but that he would. And suddenly they respected him as they would respect, say, a burglar or a prominent kidnaper or a gang leader. He was raised far above the level of a mere mathematics professor. He became instantly a leader, and, by virtue of his weapons, even a ruler.

"As you see," said Professor Minott evenly, "I have, anticipated the situation, in which we find ourselves. I am prepared for it, to a, certain extent. At any moment not only we, but the entire human race may be wiped out with a completeness of which you can form no idea. But there is also a chance of survival And I intend to make the most of my survival, if we do live."

He looked steadily from one to another of the students who had followed him to explore the extraordinary appearance of a sequoia forest north of Fredericksburg.

"I know what has happened," said Professor Minott. "I know also what is likely to happen. And I know what I intend to do about it. Any of you who are prepared to follow me, say so. Any of you who object, well, I can't have mutinies! I'll shoot him!"

"But professor," said Blake nervously, "we ought to get the girls home" "They will never go home," said Professor Minott calmly. "Neither will you, nor any of us. As soon as you're convinced that I'm quite ready to use these weapons, I'll tell you what's happened and what it means. I've been preparing for it for weeks."

Tall trees rose around the party. Giant trees. Magnificent trees. They towered two hundred and fifty feet into the air, and their air of venerable calm was at once the most convincing evidence of their actuality, and the most improbable of all the things which had happened in the neighborhood of Fredericksburg, Virginia. The little group of people sat their horses affrightedly beneath the monsters of the forest. Minott regarded them estimatingly these three young men and four girls, all students of Robinson College. Professor Minott was now no longer the faculty member in charge of a party of exploration, but a definitely ruthless leader.

At half past eight a.m. on June 5, 1935, the inhabitants of Fredericksburg had felt a curious, unanimous dizziness. It passed. The sun shone brightly. There seemed to be no noticeable change in any of the facts of everyday existence. But within an hour the sleepy little town was buzzing with excitement. The road to Washington-Route One on all road maps ceased abruptly some three miles north. A colossal, a gigantic forest had appeared magically to block the way.

Telegraphic communication with Washington had ceased. Even the Washington broadcasting stations were no longer on the air. The trees of the extraordinary forest were tall beyond the experience of any human being in town. They looked like the photographs of the giant sequoias on the Pacific Coast, but, well, the thing was simply impossible.

In an hour and a half, Professor Minott had organized a party of sightseers among the students. He seemed to pick his party with a queer definiteness of decision. Three young men and four girls. They would have piled into a rickety car owned by one of the boys, but Professor Minott negatived the idea.

"The road ends at the forest," he said, smiling. "I'd rather like to explore a magic forest. Suppose we ride horseback? I'll arrange for horses."

In ten minutes the horses appeared. The girls had vanished to get into riding breeches or knickers. They noted appreciatively on their return that besides the saddles, the horses had saddlebags slung in place. Again Professor Minott smiled.

"We're exploring," he said humorously. "We must dress the part.. Also, we'll probably want some lunch. And we can bring back specimens for the botanical lab to look over."

They rode forth; the girls thrilled, the young men pleased and excited, and all of them just a little bit disappointed at finding themselves passed by motor cars which whizzed by them as all Fredericksburg went to look at the improbable forest ahead.

There were cars by hundreds where the road abruptly ended. A crowd stared at the forest. Giant trees, their roots fixed firmly in the ground. Undergrowth, here and there. Over it all, an aspect of peace and utter serenity and permanence. The watching crowd hummed and buzzed with speculation, with talk. The thing they saw was impossible. It could not have happened. This forest could not possibly be real. They were regarding some sort of mirage.

But as the party of riders arrived, half a dozen men came out of the forest. They had dared to enter it. Now they returned, still incredulous of their own experience, bearing leaves and branches and one of them certain small berries unknown on the Atlantic coast.

A State police officer held up his hand as Professor Minott's party went toward the edge of the forest.

"Look here!" he said. "We've been hearin' funny noises in there. I'm stoppin' anybody else from goin' in until we know what's what."

Professor Minott nodded. "We'll be careful. I'm Professor Minott of Robinson College. We're going in after some botanical specimens. I have a revolver. We're all right."

He rode ahead. The State policeman, without definite orders for authority, shrugged his shoulders and bent his efforts to the prevention of other attempts to explore. In minutes, the eight horses and their riders were out of sight. That was now three hours past. For three hours, Professor Minott had led his charges, a little south of northeast. In that time they saw no dangerous animals. They saw some many familiar plants. They saw rabbits in quantity, and once a slinking gray form which Tom Hunter, who was majoring in zoology, declared was a wolf. There are no wolves in the vicinity of Fredericksburg, but neither are there sequoias. And the party had seen no signs of human life, though Fredericksburg lies in farming country which is thickly settled.

In three hours the horses must have covered between twelve and fifteen miles, even through the timber. It was just after sighting a shaggy beast which was unquestionably a woodland buffalo-extinct east of the Rockies as early as 1820-that young Blake protested uneasily against further travel.

"There's something awfully queer, sir," he said awkwardly. "I don't mind experimenting as much as you like, sir, but we've got the girls with us. If we don't start back pretty soon, we'll get in trouble with the dean." And then Minott drew his two revolvers and very calmly announced that none of them would ever go back. That he knew what had happened and what could be expected. And he added that he would explain as soon as they were convinced he would use his revolvers in case of a mutiny.

"Call us convinced now, sir," said Blake.

He was a bit pale about the lips, but he hadn't flinched. In fact, he'd moved to be between Maida Haynes and the gun muzzle.

"We'd like' very much to know how all these trees and plants, which ought to be three Thousand miles away, happen to be growing in Virginia without any warning. Especially, sir, we'd like to know how it is that the topography underneath all this brand-new forest is the same. The hills trend the same way they used to, but everything that ever was on them has vanished, and something else is in its place."

Minott nodded approvingly. "Splendid, Blake!" he said warmly. "Sound observation! I picked you because you're well spoken of in geology, even though there were other reasons for leaving you behind. Let's go on over the next rise. Unless I'm mistaken, we should find the Potomac in view. Then I'll answer any questions you like. I'm afraid we've a good bit more of riding to do today."

Reluctantly, the eight horses breasted the slope. They scrambled among underbrush. It was queer that in three hours they had seen not a trace of a road leading anywhere. But up at the top of the hill there was a road. It was a narrow, wandering cart track. Without a word, every one of the eight riders turned their horses to follow it. It meandered onward for perhaps a quarter of a mile. It dipped suddenly. And the Potomac lay before and below them.

Then seven of the eight riders exclaimed. There was a settlement upon. the banks of the river. There were boats in harbor. There were other boats in view beyond, two beating down from the long reaches upstream, and three others coming painfully up from the direction of Chesapeake

Bay. But neither the village nor the boats should have been upon the Potomac River.

The village was small and mud-walled. Tiny, blueclad figures moved about the fields outside. The buildings, the curving lines of the roofs, and more especially the unmistakable outline of a sort of temple near the center of the fortified hamlet, these were Chinese. The boats in sight were junks, save that their sails were cloth instead of slatted bamboo. The fields outside the squat mud walls were cultivated in a fashion' altogether alien. Near the river, where marsh flats would be normal along the Potomac, rice fields intensely worked spread out instead.

Then a figure appeared near by. Wide hat, wadded cotton-padded jacket, cotton trousers, and clogs, it was Chinese peasant incarnate, and all the more so when it turned a slant-eyed, terror-stricken face upon them and fled squawking. It left a monstrously heavy wooden yoke behind, from which dangled two buckets filled with berries it had gathered in the forest.

The riders stared. There was the Potomac. But a Chinese village nestled, beside it, Chinese junks plied its waters.

"I-I think," said Maida Haynes unsteadily, "I- think I've-gone insane. Haven't I?"

Professor Minott shrugged. He looked disappointed but queerly resolute.

"No," he said shortly. "You're not mad. It just happens that the Chinese happened to colonize America first. It's been known that Chinese junks touched the American shore, the Pacific coast, of course, long before Columbus. Evidently they colonized it. They may have, come all the way overland to the Atlantic, or maybe around by Panama. In any case, this is a Chinese continent now. This isn't what we want. We'll ride some more."

The fleeing, squawking figure had been seen from the village. A huge, discordant gong began to sound. Figures fled toward the walls from the fields rounds about. The popping of firecrackers began, with a chorus of most intimidating yells.

"Come on!" said Minott sharply. "We'd better move!"

He wheeled his horse about and started off at a canter. By instinct, since he was the only one who seemed to have any definite idea what to do, the others flung after him.

And as they rode, suddenly the horses staggered. The humans on them felt a queer, queasy vertigo. It lasted only for a second, but Minott paled a little.

"Now we'll see what's happened," he said Corn, posedly. "The odds are still fair, but I'd rather have had things stay as they were until we'd tried a few more places."

IV

That same queasy vertigo affected the staring crowd at the end of the road leading north from Fredericksburg. For perhaps a second they felt an unearthly illness, which even blurred their vision. Then they saw clearly again. And in an instant they were babbling in panic, starting their motor cars in terror, some of them fleeing on foot.

The sequoia forest had vanished. In its place was a dreary waste of glittering white; stumpy trees buried under snow; rolling ground covered with a powdery, glittering stuff.

In minutes dense fog shut off the view, as the warm air of a Virginia June morning was chilled by that frigid coating. But in minutes, - too,. the heavy snow began to melt. The cars fled -away along the concrete road, and behind them an expanding belt of fog spread out-and the little streams and runlets filled with a sudden surplus of water, and ran more swiftly, and rose.

The eight riders were every one very pale. Even Minott seemed shaken but no less resolute when he drew rein.

"I imagine you will all be satisfied now," he said composedly. "Blake, you're the geologist of the party. Doesn't the shore line there look familiar?"

Blake nodded. He was very white indeed. He pointed to the stream. "Yes. The falls, too. This is the site of Fredericksburg, sir, where we were this morning. There is where the main bridge was, or will be. The main highway to Richmond should run", he licked his lips, "it should run where that very big oak tree is standing. The Princess Anne Hotel should be on the side of that hill. I-I would say, sir, that somehow we've gone back in time or else forward into the future. It sounds insane, but I've been trying to figure it out"

Minott nodded coolly. "Very good! This is the site of Fredericksburg, to be sure. But we have not traveled forward or back in time. I hope that you noticed where we came out of the sequoia forest. There seems to be a sort of fault along that line, which it may be useful to remember." He paused. "We're not in the past or the future, Blake. We've traveled sidewise, in a sort of oscillation from one time path to another. We happen to be in a well, in a part of time

where Fredericksburg has never been built, just as a little while since we were where the Chinese occupy the American continent. I think we better have lunch."

He dismounted. The four girls tended to huddle together. Lucy Blair's teeth chattered.

Blake moved to their horses' heads. "Don't get rattied," he said urgently. "We're here, wherever it is. Professor Minott is going to explain things in a minute. Since he knows what's what, we're in no danger. Climb off your horses and let's eat. I'm hungry as a bear. Come on, Maida!"

Maida Haynes dismounted. She managed a rather shaky smile. "I'm afraid of him," she said in a whisper. "More than anything else. Stay close to me, please!"

Blake frowned. Minott said dryly: "Look in your saddlebags and you'll find sandwiches. Also you'll find firearms. You young men had better arm yourselves. Since there's now no conceivable hope of getting back to the world we know, I think you can be trusted with weapons."

Blake stared at him, then silently investigated his own saddlebags. He found two revolvers, with what seemed an abnormally large supply of cartridges. He found a mass of paper, which turned out to be books with their cardboard backs torn off. He glanced professionally at the revolvers, and slipped them in his pockets. He put back the books.

"I appoint you second in command, Blake," said Minott, more dryly than before. "You understand nothing, but you wait to understand. I made no mistake in choosing you despite my reasons for leaving you behind. Sit down and I'll tell you what happened."

With a grunt and a puffing noise, a small black bear broke cover and fled across a place where only that morning a highly elaborate filling station had stood. The party started, then relaxed. The girls suddenly started to giggle foolishly, almost hysterically. Minott bit calmly into a sandwich and said pleasantly,

"I shall have to talk mathematics to you, but I'll try to make it more palatable than my classroom lectures have been. You see, everything that has happened can only be explained in terms of mathematics, and more especially certain concepts in mathematical physics. You young ladies and gentlemen being college men and women, I shall have to phrase things very simply, as for ten-year-old children. Hunter, you're staring. If you, actually see something, such as an Indian, shoot at him and he'll run away. The probabilities are that he never heard the report of a firearm. We're not on the Chinese continent now."

Hunter gasped, and fumbled at his saddlebags. While he got out the revolvers, Minott went on imperturbably,

"There has been an upheaval of nature, which still continues. But instead of a shaking and jumbling of earth and rocks, there has been a shaking and jumbling of space and time. I go back to first principles. Time is a dimension. The past is one extension of it, the future is the other, just as east is one extension of a more familiar dimension and west is its opposite.

"But we ordinarily think of time as a line, a sort of tunnel, perhaps. We do not make that error in the dimensions about which we think daily. For example, we know that Annapolis, King George courthouse, and, say, Norfolk are all to the eastward of us. But we know that in order to reach any of them, as a destination, we would have to go not only cast but north or south in addition. In imaginative travels into the future, however, we never think in such a common-sense fashion. We assume that the future is a line instead of a coordinate, a path instead of a direction. We assume that if we travel to futureward there is but one possible destination. And that is as absurd as it would be to ignore the possibility of traveling to eastward in any other line than due east, forgetting that there is northeast and, southeast and a large number of intermediate points."

Young Blake said slowly: "I follow you, sir, but it doesn't seem to bear"

"On our problem? But it does!" Minott smiled, showing his teeth. He bit into his sandwich again. "Imagine that I come to a fork in a road. I flip a coin to determine which fork I shall take. Whichever route I follow, I shall encounter certain landmarks and certain adventures. But they will not be the same, whether landmarks or adventures.

"In choosing between the forks of the road I choose not only between two sets of landmarks I could encounter, but between two sets of events. I choose between paths, not only on the surface of the earth, but in time. And as those paths upon earth may lead to two different cities, so those paths in the future may lead to two entirely different fates. On one of them may lie opportunities for riches. On the other may lie the most prosaic of hit-and-run accidents which will leave me a mangled corpse, not only upon one fork of a highway in the State of Virginia, but upon, one fork of a highway in time."

"In short, I am pointing out that there is more than one future we can encounter, and with more or less absence of deliberation we choose among them. But the futures we fail to encounter, upon the roads we do not take, are just as real as the landmarks upon those roads. We never see

them, but we freely admit their existence."

Again it was Blake who protested: "All this is interesting enough, sir, but still I don't see how it applies to our present situation."

Minott said impatiently: "Don't you see that if such a state of things exists in the future, that it must also have existed in the past? We talk of three dimensions and one present and one future. There is a theoretic necesssity, a mathematical necessity, for assuming more than one future. There are an indefinite number of possible futures, any one of which we would encounter if we took the proper 'forks' in time.

"There are any number of destinations to eastward. There are any number to futureward. Start a hundred miles west and come eastward, choosing your paths on earth at random, as you do in time. You may arrive here. You may arrive to the north or south of this spot, and still be east of your starting point. Now start a hundred years back instead of a hundred miles west."

Groping, Blake said fumbilingly: "I think you're saying, sir, that, well, as there must be any number of futures, there must have been any number of pasts besides those written down in our histories. And-and it would follow that there are any number of what you might call 'presents'. "

Minott gulped down the last of his sandwich and nodded. "Precisely. And today's convulsion of nature has jumbled them and still upsets them from time to time. The Northmen once colonized America. In the sequence of events which mark the pathway of our own ancestors through time, that colony failed. But along another path through time that colony throve and flourished. The Chinese reached the shores of California. In the path our ancestors followed through time, nothing developed from the fact. But this morning we touched upon the pathway in which they colonized and conquered the continent, though from the fear that one peasant we saw displayed, they have not wiped out the Indians.

"Somewhere the Roman Empire still exists, and may not improbably rule America as it once ruled Britain. Somewhere, not impossibly, the conditions causing the glacial period still obtain and Virginia is buried under a mass of snow. Somewhere even the Carboniferous period may exist. Or to come more closely to the present we know, somewhere there is a path through time in which Pickett's charge at Gettysburg went desperately home, and the Confederate States of America is now an independent nation with a heavily fortified border and a chip-on-the-shoulder attitude toward the United States."

Blake alone had asked questions, but the entire party had been listening open-mouthed.

Now Maida Haynes said: "But-Professor Minott, where are we now?"

"We are probably," said Minott, smiling, "in a path of time in which America has never been discovered by white men. That isn't a very satisfactory state of things. We're going to look for something better. We wouldn't be comfortable in wigwams, with skins for clothing. So we shall hunt for a more congenial environment. We will have some weeks in which to do our searching, I think. Unless, of course, all space and time are wiped out by the cause of our predicament."

Tom Hunter stirred uncomfortably. "We haven't traveled backward or forward in time, then?"

"No," repeated Minott. He got to his feet. "That odd nausea we felt seems to be caused by travel sidewise in time. It's the symptom of a time oscillation. We'll ride on and see what other worlds await us. We're a rather well-qualified party for this sort of exploration. I chose you for your trainings. Hunter, zoology. Blake, engineering and geology. Harris, he nodded to the rather undersized young man, who flushed at being noticed, "Harris is quite a competent chemist, I understand. Miss Ketterling is a capable botanist. Miss Blair.."

Maida Haynes rose slowly. "You anticipated all this, Professor Minott, and yet you brought us into it. You, you said we'll never get back home. Yet you deliberately arranged it. What, what was your motive? What did you do it for?"

Minott climbed into the saddle. He smiled, but there was bitterness in his smile. "In the world we know," he told her, "I was a professor of mathematics in a small and unconsidered college. I had absolutely no chance of ever being more than a professor of mathematics in a small and unconsidered college. In this world I am, at least, the leader of a group of reasonably intelligent young people. In our saddlebags are arms and ammunition and more important, books of reference for our future activities. We shall hunt for and find a world in which our technical knowledge is at a premium. We shall live in that world, if all time and space is not destroyed, and use our knowledge."

Maida Haynes said: "But again, what for?" "To conquer it!" said Minott in sudden fierceness. "To conquer it! We eight shall rule a world as no world has been ruled since time began! I promise you that when we find the environment I seek, you will have wealth by millions, slaves by thousands, every luxury, and all the power human beings could desire!" Blake said evenly: "And you, sir? What will you have?"

"Most power of all," said Minott steadily. "I shall be the emperor of the world! And also

his tone changed indescribably as he glanced at Maida, "also I shall have a certain other possession that I wish."

He turned his back to them and rode off to lead the way. Maida Haynes was deathly pale as she rode close to Blake Her hand closed convulsively upon his arm.

"Jerry!" she whispered. "I'm-frightened!" And Blake said steadily, "Don't worry! I'll kill him first!"

V

The ferryboat from Berkeley plowed valorously through the fog. Its whistle howled mournfully at the regulation intervals.

Up in the pilot house, the skipper said confidentially, "I tell you, I had the funniest feelin' of my life, just now. I was dizzy and sick all over, like I was seasick and drunk all at the same time."

The mate said abstractedly: "I had somethin' like that a little while ago. Somethin' we ate, prob'ly. Say, that's funny!"

"Say what?"

"Was a lot o' traffic in the harbor just now, whistlin'. I ain't heard a whistle for minutes. Listen!" Both men strained their ears. There was the rhythmic shudder of the vessel, itself a sound produced by the engines. There were fragmentary voice, noises from the passenger deck below. There was the wash of water by the ferryboat's bow. There was nothing else. Nothing at all.

"Funny!" said the skipper.

"Damn funny!" agreed the mate.

The ferryboat went on. The fog cut down all visibility to a radius of perhaps two hundred feet.

"Funniest thing I ever saw!" said the skipper worriedly. He reached for the whistle cord and the mournful bellow of the horn resounded. "We're near our slip, though. I wish."

With a little chugging, swisbing sound a steam launch came out of the mist. It sheered off, the men in it staring blankly at the huge bulk of the ferry. It made a complete circuit of the big, clumsy craft. Then someone stood up and bellowed unintelligibly in the launch. He bellowed again. He was giving an order. He pointed to the flag at the stern of the launch, it was an unfamiliar flag, and roared furiously.

"What the hell's the matter of that guy?" wondered the mate.

A little breeze blew suddenly. The fog began to thin. The faintly brighter spot which was the sun overhead grew bright indeed. Faint sunshine struggled through the fog bank. The wind drove the fog back before it, and the bellowing man in the steam launch grew purple with rage as his orders went unheeded.

Then, quite abruptly, the last wisps of vapor blew away. San Francisco stood revealed. But, San Francisco? This was not San Francisco! It was a wooden city, a small city, a dirty city with narrow streets and gas street lamps and four monstrous, barracklike edifice fronting the harbor. No hill stood, but it was barren of dwellings. And, "Damn!" said the mate of the ferryboat.

He was staring at a colossal mass of masonry, foursquare and huge, which rose to a gigantic spiral fluted dome. A strange and alien flag fluttered in the breeze above certain buildings. Figures moved in the streets. There were motor qars, but they were clumsy and huge.

The mate's eyes rested upon a horse-drawn carriage. It was drawn by three horses abreast, and they were either so trained or so checkreined that the two outer horses' heads were arched outward in the fashion of Tsarist Russia.

But that was natural enough. What an interpreter could be found, the mate and skipper were savagely abused for entering the harbor of Novo Skevsky without paying due heed to the ordinances in force by the ukase of the Tsar Alexis of all the Russias. These rules, they learned, were enforced with special rigor in all the Russian territory in America, from Alaska on south.

The boy ran shouting up to the village. "Hey, grandpa! Hey, grandpa! Lookit the birds!" He pointed as he ran.

A man looked idly, and stood transfixed. A woman stopped, and stared. Lake superior glowed bluely off to westward, and the little village most often turned its eyes in that direction. Now, though, as the small boy ran shouting of what he had seen, men stared, women marveled, and

children ran and shouted and whooped in the instinctive excitement of childhood at anything which entrances grown-ups.

Over the straggly pine forests birds were coming. They came in great dark masses. Not by dozens, or by hundreds, or even by thousands. They came in millions, in huge dark clouds which obscured the sky. There were two huge flights in sight at the boy's first shouting. There were six in view before he had reached his home and was panting a demand that his elders come and look. And there were others, incredible numbers of others, sweeping onward straight over the village.

Dusk fell abruptly as the first flock passed overhead. The whirring of wings was loud. It made people raise their voices as they asked each other what such birds could possibly be. Daylight again, and again darkness as the flocks poured on. The size of each flock was to be measured not in feet or yards, but in miles of front. Two, three miles of birds, flying steadily in a single enormous mass some four miles deep. Another such mass, and another, and another.

"What are they, grandpa? There must be millions of 'em!"

Somewhere, a shotgun went off. Small things dropped from the sky. Another gunshot, and another. A rain of bird shot went up from the village into the mass of whirring wings. And crazily careening small bodies fell down among the houses.

Grandpa examined one of them, smoothing its rumpled plumage. He exclaimed. He gasped in excitement. "It's a wild pigeon! What they used to call passenger pigeons! Back in '78 there was these birds by billions. Folks said a billion was killed in Michigan that one year! But they're gone now. They're gone like the buffalo. There ain't any more."

The sky was dark with birds above him. A flock four miles wide and three miles long made lights necessary in the village. The air was filled with the sound of wings. The passenger pigeon had returned to a continent from which it had been absent for almost fifty years.

Flocks of passenger pigeons flew overhead in thick, dark masses equaling those seen by Audubon in 1813, when he computed the pigeons in flight above Kentucky at hundreds of billions in number. In flocks that were innumerable they flew to westward. The sun set, and still the air was filled with the sound of their flying. For hours after darkness fell, the whirring of wings continued without ceasing.

VI

A great open fire licked at the rocks against which it had been built. The horses cropped uneasily at herbage near by. The smell of fat meat cooking was undeniably savory, but one of the girls blubbered gustily on a bed of leaves. Harris tended the cookery. Tom Hunter brought wood. Blake stood guard a little beyond the firelight, revolvers ready, staring off into the blackness. Professor Minott pored over a topographical map of Virginia. Maida Haynes tried to comfort the blubbering girl.

"Supper's ready," said Harris. He made even that announcement seem somehow shy and apologetic.

Minott put down his map. Tom Hunter began to cut great chunks of steaming meat from the haunch of venison. He put them on slabs of bark and began to pass them around. Minott reached out his hand and took one of them. He ate with obvious appetite. He seemed to have abandoned his preoccupation the instant he laid down his map. He was displaying the qualities of a capable leader.

"Hunter," he observed, "After you've eaten that stuff, you might relieve Blake. 'We'll arrange reliefs for the rest of the night. By the way, you men mustn't forget to wind your watches. We'll need to rate them, ultimately."

Hunter gulped down his food and moved out to Blake's hiding place. They exchanged low-toned words. Blake came back to the fire. He took the food Harris handed him and began to eat it. He looked at the blubbering girl on the bed of leaves.

"She's just scared," said Minott. "Barely slit the skin on her arm. But it is upsetting for a senior at Robinson College to be wounded by a flint arrowhead."

Blake nodded. "I heard some noises off in the darkness," he said curtly "I'm not sure, but my impression was that I was being stalked. And I thought I heard a human voice."

"We may be watched," admitted Minott. "But we're out of the path of time in which those Indians tried to ambush us. If any of them follow, they're too bewildered to be very dangerouus."

"I hope so," said Blake.

His maimer was devoid of cordiality, yet there was no exception to be taken to it.

Professor Minott had deliberately got the party into a predicament from which there seemed to be no possibffity of escape. He had organized it to get it into just that predicament. He was unquestionably the leader of the party, despite his action. Blake made no attempt to undermine his leadership.

But Blake himself had some qualifications as a leader, young as he was. Perhaps the most promising of them was the fact that he made no attempt to exercise his talents until he knew as much as Minott of what was to be looked for, what was to be expected.

He listened sharply and then said: "I think we've digested your lesson of this morning, sir. But how long is this scrambling of space and time to continue? We left Fredericksburg and rode to the Potomac. It was Chinese territory. We rode back to Fredericksburg, and it wasn't there. Instead, we encountered Indians who let loose a flight of arrows at us and wounded Bertha Ketterling in the arm. We were nearly out of range at the time, though."

"They were scared," said Minott. "They'd never seen horses before. Our white skins probably upset them, too. And then our guns, and the fact that I killed one, should have chased them off."

"But, what happened to Fredericksburg? We rode away from it. Why couldn't we ride back?"

"The scrambling process has kept up," said Minott dryly. "You remember that queer vertigo? We've had it several times today, and every time, as I see it, there's been an oscillation of the earth we happened to be on. Hm! Look!" He got up and secured the map over which he had been poring. He brought it back and pointed to a heavy penciled line. "Here's a map of Virginia, in our time. The Chinese continent appeared just about three miles north of Fredericksburg. The line of democration was, I consider, the line along which the giant sequoias appeared. While in the Chinese time we felt that giddiness and rode back toward Fredericksburg. We came out of the sequoia forest at the same spot as before. I made sure of it. But the continent of our time was no longer there.

"We rode east and, whether you noticed it or not, before we reached the border of King George County there was another abrupt change in the vegetation from a pine country to oaks and firs, which are not exactly characteristic of this part of the world in our time.

We saw no signs of any civilization. We turned south, and ran into that heavy fog and the snow beyond it. Evidently, there's a section of a time path in which Virginia is still subject to a glacial climate."

Blake nodded. He listened again. Then be said, "You've three sides of an-an island of time marked there."

"Just so," agreed Minott. "Exactly! In the scrambling process, the oscillating process, there seem to be natural 'faults' in the surface of the earth. Relatively large areas seem to shift back and forth as units from one time path to another. In my own mind, I've likened them to elevators with many stories.

"We were on the Fredericksburg 'elevator', or that section of our time path, when it shifted to another time. We rode off it onto the Chinese continent. While there, the section we started from shifted again, to another time altogether. When we rode back to where it had been- well, the town of Fredericksburg was in another time path altogether."

Blake said sharply, "Listen!"

A dull mutter sounded far to the north. It lasted for an instant and died away. There was a crashing of bushes near by and a monstrous animal stepped alertly into the firelight. It was, an elk, but such an elk! It was a giant, a colossal creature. One of the girls cried out aifrightedly, and it turned and crashed away into the underbrush.

"There are no elk in Virginia," said Minott dryly. Blake said sharply again, "Listen!"

Again that dull muttering to the north. It grew louder, now. It was an airplane motor. It increased in volume from a dull mutter to a growl, from a growl to a roar. Then the plane shot overhead, the navigation lights on its wings glowing brightly. It banked steeper and returned. It circled overhead, with a queer effect of helplessness. And then suddenly it dived down.

"An aviator from our time," said Blake, staring toward the sound. "He saw our fire. He's going to try to make a crash landing in the dark."

The motor cut off. An instant in which there was only the crackling, of the fire and the whistling of wind around gliding surfaces off there in the night. Then a terrific thrashing of branches. A crash Then a flare of flame, a roaring noise, and the lurid yellow of gasoline flames spouting skyward.

"Stay here!" snapped Blake. He was on his feet in an instant. "Harris, Professor Minott! Somebody has to stay with the girls! I'll get Hunter and go help!"

He plunged off into the darkness, calling to Hunter. The two of them forced their way

through the underbrush. Minott scowled and got out his revolvers. Still scowling, he slipped out of the firelight and took up the guard duty Hunter had abandoned.

A gasoline tank exploded, off there in the darkness. The glare of the fire grew intolerably vivid. The sound of the two young men racing through undergrowth became fainter and died away.

A long time passed a very long time. Then, very far away, the sound of thrashing bushes could be heard again. The gasoline flare dulled and dimmed. Figures came slowly back. They moved as if they were carrying something very heavy. They stopped beyond the glow of light from the camp fire. Then Blake and Hunter reappeared, alone.

"He'd dead," said Blake curtly. "Luckily, he was flung clear of the crash before the gas tanks caught. He catch back to consciousness for a couple of minutes before he died. Our fire was the only sign of human life he'd seen in hours. We brought him over here. We'll bury him in the morning."

There was silence. Minott's scowl was deep and savage as he came back to the firelight.

"What-what did he say?" asked Maida Haynes. "He left Washington at five this afternoon," said Blake shortly. "By our time, or something like it. All of Virginia across the Potomac vanished at four thirty, and virgin forest took its place He went out to explore. At the end of an hour he came back, and Washington was gone. In its place. was a fog bank, with snow underneath. He followed the Potomac down and saw palisaded homesteads with long, oared ships drawn up on shore."

"Vikings, Norsemen!" said Minott in satisfaction.

"He didn't land. He swept on down, following the edge of the bay. He looked for Baltimore. Gone! Once, he's sure, he saw a city, but he was taken sick at about that time and when he recovered, it had vanished. He was heading north again and his gasoline was getting low when he saw our fire. He tried for a crash landing. He'd no flares with him. He crashed, and died." "Poor fellow!" said Maida shakenly.

"The point is," said Blake, "that Washington was in our present time at about four thirty today. We've got a chance, though a slim one, of getting back! We've got to get to the edge of one of these blocks that go swinging through time, the edge of what Professor Minott calls a 'time fault', and watch it! When the shifts come, we explore as quickly as we can. We've no great likelihood, perhaps, of getting back exactly to our own period, but we can get nearer to it than we are now! Professor Minott said that somewhere the Confederacy exists. Even that, among people of our own race and speaking our own language, would be better than to be marooned forever among Indians, or among Chinese or Norsemen."

Minott said harshly, "Blake, we'd better have this out right now! I give the orders in this party! You jumped quickly when that plane crashed, and you gave orders to Harris and to me. I let you get away with it, but we can have but one leader. I am that leader! See you remember it!"

Blake swung about. Minott had a revolver bearing on his body.

"And you are - making plans for a return to our time!" he went on savagely. "I won't have it! The odds are still that we'll all be killed. But if I do live, I mean to take advantage of it. And my plans do not include a return to a professorship of mathematics at Robinson College."

"Well?" said Blake coolly. "What of it, sir?"

"Just this! I'm going to take your revolvers. I'm going to make the plans and give the orders hereafter. We are going to look for the time path in which a viking civilization thrives in America. We'll find it, too, because these disturbances will last for weeks yet. And once we find it, we will settle down among those Torsemen, and when space and time are stable again I shall begin the formation of my empire! And you will obey orders or you'll be left afoot while the rest of us go on to my destiny!"

Blake said very quietly indeed, "Perhaps, sir, we'd all prefer to be left to our own destinies rather than be merely the tools by which you attain to yours."

Minott stared at him an instant. His lips tensed. "It is a pity," he said coldly. "I could have used your brains, Blake. But I can't have mutiny. I shall have to shoot you."

His revolver came up remorselessly.

VI

To determine the cause of various untoward events, the British Academy of Sciences was in extraordinary session. Its members were weary, bleary-eyed, but still conscious of their dignity

and the importance of their task. A venerable, whiskered physicist spoke with fitting definiteness and solemnity.

"And so, gentleman, I see nothing more that remains to be said. The extraordinary events of the past hours seem to follow from certain facts about our own closed space. The gravitational fields of 1 particles of matter will close space about such an aggregation. No cosmos can be larger. No cosmos can be smaller. And if we envision the creation of such a cosmos we will observe its galaxies vanish at the instant the 1079th particle adds its own mass to those which were present before it.

"However, the fact that space has closed about such a cosmos does not imply its annihilation. It means merely its separation from its original space, the isolation of itself in space and time because of the curvature of space due to its gravitational field. And if we assume the existence of more than one area of closed space, we assume in some sense the existence of a hyper space separating the closed spaces, hyper-spatial coordinates which mark their relative hyper-spatial positions, hyper-spatial."

A gentleman with even longer and whiter whiskers than the speaker said in a loud and decided voice, "Fiddlesticks! Stuff and nonsense!"

The speaker paused. He glared. "Sir! Do you refer-"

"I do!" said the gentleman with the longer and whiter whiskers. "It is stuff and nonsense! Next you'd be saying that in this hyper-space of yours the closed spaces would be subject to hyper-laws, revolve about each other in hyper-orbits regulated by hypergravitation, and undoubtedly, at times there would be hyper~earth tides or hyper-collisions, producing decidedly hyper-catastrophes."

"Such is," said the whiskered gentleman on the rostrum, quivering with indignation, "such is the fact, sir!"

"Then the fact," rejoined the scientist with the longer and whiter whiskers, "sir, makes me sick!"

And as if to prove it, he reeled. But he was not alone in reeling. The entire venerable assembly shuddered in abrupt, nauseating vertigo. And then the British Academy of Sciences adjourned without formality and in a panic. It ran away. Because abruptly there was no longer a rostrum nor an end to its assembly hail. Where their speaker had been was open air. In the open air was a fire. About the fire were certain brutish figures incredibly resembling the whiskered scientists who fled from them. They roared at the fleeing, venerable men. Snarling, wielding crude clubs, they plunged into the hail of the British Academy of Sciences. It is known that they caught one person a biologist of highly eccentric views. It is believed that they ate him.

But it has long been surmised that some, at least, of the extinct species of humanity, such as the Piltdown and Neanderthal men, were cannibals. If in some pathway of time they happened to exterminate their more intelligent rivals if somewhere pithecanthropus erectus survives and homo sapiens does not, well, in that pathway of time cannibalism is the custom of society.

With a gasp, Maida Haynes flung herself before Blake. But Harris was even quicker. Apologetic and shy, he had just finished cutting a smoking piece of meat from the venison haunch. He threw it swiftly, and the searing mass of stuff flung Minott's hand aside at the same instant that it burned it horribly.

Blake was on his feet, his gun out. "If you pick up that gun, sir," he said rather breathlessly but with unquestionable sincerity, "I'll put a bullet through your arm!"

Minott swore. He retrieved the weapon with his left hand and thrust it in his pocket. "You young fool!" he snapped. "I'd no intention of shooting you. I did intend to scare you thoroughly. Harris, you're an ass! Maida, I shall discuss your action later. The worst punishment I could give the lot of you would be to leave you to yourselves."

He stalked out of the firelight and off into the darkness. Something like consternation came upon the group. The glow of fire where the plane had crashed flickered fitfully. The base of the dull red light seemed to widen a little.

"That's the devil!" said Hunter uneasily. "He does know more about this stuff than we do. If he leaves us we're messed up!"

"We are," agreed Blake grimly. "And perhaps if he doesn't."

Lucy Blair said: "I-I'll go and talk to him. He-he used to be nice to me in class. And-and his hand must hurt terribly. It's burned."

She moved away from the fire, a lông and angular shadow going on before her.

Minott's voice came sharply: "Go back! There's something moving out here!"

Instantly after, his revolver flashed. A howl arose, and the weapon flashed again -and again. Then there were many crashings. Figures fled.

Minott came back to the firelight, scornfully. "Your leadership is at fault, Blake," he

commented sardonically. "You forgot about a guard. And you were the man who thought he heard voices! Theyve run away now, though. Indians, of course."

Lucy, Blair said hesitantly: "Could I-could I do something for your hand? It's burnèd."

"What can you do?" he asked angrily.

"There's some fat," she told him. "Indians used to dress wounds'with bear fat. I suppose deer fat would do as well."

He permitted her to dress the burn, though it was far from a serious one. She begged handkerchiefs from, the others to complete the job. There was distinct uneasiness all about the camp fire. This was no party of adventurers, prepared for anything. It had started as an outing of undergraduates.

Minott scowled as Lucy Blair worked on his hand. Harris looked as apologetic as possible, because he had made the injury. Bertha Ketterling blubbered less noisily, now, because nobody paid her any attention. Blake frowned meditatively at the fire. Maida Haynes tried uneasily not to seem conscious of the fact that she was in some sense though no mention had been made of it a bone of contention.

The horses moved uneasily. Bertha Ketterling sneezed. Maida felt her eyes smarting. She was the first one to see the spread of the blaze started by the gas tanks of the airplane. Her cry of alarm roused the others.

The plane had crashed a good mile from the camp fire. The blazing of its tanks had been fierce but brief. The burning of the wings and chassis fabric had been short, as well. The fire had died down to seeming dull embers. But there were more than embers ablaze out there now.

The fire had died down, to be sure, but only that it might spread among thick and tangled underbrush. It had spread widely on the ground before some climbing vine, blazing, carried flames up to resinous pine branches overhead. A small but steady wind was blowing. And as Maida looked off to see the source of the smoke which stung her eyes, one tall tree was blazing, a long line of angry red flames crept along the ground, and then at two more, three more, then at a dozen points bright fire roared upward toward the sky. The horses snorted and reared.

Minott snapped: "Harris! Get the horses! Hunter, see that the girls get mounted, and quickly!"

He pointedly gave Blake no orders. He pored intently over his map as more trees and still more caught fire and blazed upward. He stuffed it in his pocket.

Blake calmly rescued the haunch of venison, and when Minott sprang into the saddle among the snorting, scared horses, Blake was already by Maida Haynes side, ready to go.

"We ride in pairs," said Minott curtly. "A man and a girl. You men, look after them. I've a flashlight. I'll go ahead. We'll hit the Rappahannock River sooner or later, if we don't get around the fire first and if we can keep ahead of it."

They topped a little hillock and saw more of the extent of their danger. In a half mile of spreading, the fire had gained three times as much breath. And to their right the fire even then roared in among the trees of a forest so thick as to be jungle. The blaze fairly raced through it as if the fire made its own wind; which in fact it did. To their left it crackled fiercely in underbrush which, as they fled, blazed higher.

And then, as if to add mockery to their very real danger, a genuinely brisk breeze sprang up suddenly. Sparks and blazing bits of leaves, fragments of ash and small, unsubstantial coals began to fall among them. Bertha Ketterling yelped suddenly as a tiny live coal touched the flesh of her cheek. Harris horse squealed and kicked as something singed it. They, galloped madly ahead. Trees rose about them. The white beam of Minott's flashlight seemed almost ludicrous in the fierce red glare from behind, but at least it showed the way.

IX

Something large and dark and clumsy lumbered cumbersomely into the space between Grady's stattie and the post-office building; The arc lights showed it clearly, and it was not anything which should be wandering in the streets of Atlanta, Georgia, at any hour of the day or night. A taxicab chauffeur saw it and nearly tore off a wheel in turning around to get away. A policeman saw. it, and turned very pale as he grabbed at his beat telephone to report it. But there had been too many queer things happening this day for him to suspect his own sanity, and the Journal had printed too much news from elsewhere for him to disbelieve his own eyes.

The thing was monstrous, reptilian, loathesome. It was eighty feet long, of which at least

fifty, was head and tail and the rest flabby-fleshed body. It may have weighed twenty-five or thirty tons, but its head was not much larger than that of a large horse. That tiny head swung about stupidly. The thing was bewildered. It put down a colossal foot, and water gushed up from a broken water main beneath the pavement. The thing did not notice. It moved vaguely, exhaling a dank and musty odor.

The clang of police emergency cars and the scream of fire engine sirens filled the air. An ambulance flashed into view-and was struck by a balancing sweep of the mighty tail. The ambulance careened and crashed.

The thing uttered a plaintive cry, ignoring the damage its tail had caused. The sound was like that of a bleat, a thousand times multiplied. It peered ceaselessly around, seeming to feel trapped by the tall buildings about it, but it was too stupid to retrace its steps for escape. Somebody screamed in the distance as police cars and fire engines reached the spot where the first thing swayed and peered and moved in quest of escape.

Two other things, smaller than the first, came lumbering after it. Like it, they had monstrotis bodies and d~sproportionately tiny heads. One of them blundered stupidly into a hook-and-ladder truck. Truèk and beast went down, and the beast bleated like the first.

Then some fool began to shoot. Other fools joined in. Steel-jacketed bullets poured into the mountains of reptilian flesh. Police sub-machine guns raked the monsters. Those guns were held by men of great daring, who could not help noting the utter stupidity of the things out of the great swamp which had appeared where Inman Park used to be.

The bullets stung. They hurt. The three beasts bleated and tried bewilderedly and very clumsily to escape. The largest tried to climb a five-story building, and brought it down in sheer wreckage.

Before the last of them was dead, or rather, before it ceased to move its great limbs, because the tail moved jerkily for a long time and its heart was still beating spasmodically when loaded on a city dump cart next day, before the last of them was dead they had made sheer chaos of three blocks of business buildings in the heart of Atlanta, had killed seventeen men, and the best testimony is that they made not one attempt to fight. Their whole and only thought was to escape. The destruction they wrought and the deaths they caused were due to their clumsiness and stupidity.

X

The leading horses floundered horribly. They sank to their fetlocks in something soft and very spongy. Bertha Ketterling squawked in terror as her mount's motion changed.

Blake said crisply in the blackness, "It feels like plowed ground. Better use the light again, Professor Minott."

The sky behind them glowed redly. The forest fire still trailed them. For miles of front, now, it shot up sparks and flame and a harsh red glare which illumined the clouds of its own smoke.

The flashlight stabbed at the earth. The ground was plowed. It was softened by the hands of men. Minott kept the light on as little gasps of thankfulness arose.

Then he said sardonically, "Do you know what this crop is? It's lentils. Are lentils grown in Virginia? Perhaps! We'll see what sort of men these may happen to be."

He swung to follow the line of the furrows.

Tom Hunter said miserably: "If that's plowed ground, it's a damn shallow furrow. A one-horse plowed throw up more dirt than that."

A light glowed palely in the distance. Every person in the party saw it at the same instant. As if by instinct, the head of every horse swerved for it.

"We'll want to be careful," said Blake quietly. "These may be Chinese, too."

The light was all of a mile distant. They moved over the plowed ground cautiously.

Suddenly the hoofs of Lucy Blair's horse rang on stone. The noise was startlingly loud. Other horses, following hers, clattered thunderously. Minott flashed down the light again. Dressed stone. Cut stone. A roadway built of dressed-stone blocks, some six or eight feet wide. Then one of the horses shivered and snorted. It pranced agitatedly, edging away from something on the road. Minott swept the flashlight beam along the narrow way.

"The only race," he said dryly, "that ever built roads like this was the Romans. They made their military roads like this. But they didn't discover America that we know of."

The beam touched something dark. It came back and steadied. One of the girls uttered a stilled exclamation. The beam showed dead men. One was a man with a shield and sword and a helmet such as the soldiers of ancient Rome are pictured as having worn. He was dead. Half his head had been blown off. Lying on top of him there was a man in a curious gray uniform. He had died of a sword wound.

The beam searched around. More bodies. Many Roman-accoutered figures. Four or five men in what looked remarkably like the uniform that might be worn by soldiers of the Confederate Army, if a Confederate Army could be supposed to exist.

"There's been fighting," said Blake composedly. "I guess somebody from the Confederacy, that time path, say started to explore what must have seemed a damned strange happening. And these Romans, if they are Romans, jumped them."

Something came shambling through the darkness. Minott threw the flash beam upon it. It was human, yes. But it was three parts naked, and it was chained, and it had been beaten horribly, and there were great sores upon its body from other beatings. It was bony and emaciated. The insensate ferocity of sheer despair marked it. It was brutalized by its sufferings until it was just human, barely human, and nothing more.

It squinted at the light, too dull of comprehension to be afraid.

Then Minott spoke, and at his words it groveled in the dirt. Minott spoke harshly, in half-forgotten Latin, and, the groveling figure mumbled words which had been barbarous Latin to begin with, and through its bruised lips were still further mutilated.

"It's a slave," said Minott coldly. "Strange men, Confederates, I suppose caine from the north today. They fought and killed some of the guards at this estate. This slave denies it, but I imagine he was heading north in hopes of escaping to them. When you think of it, I suppose we're not the only explorers to be caught out of our own time path by some shift or another."

He growled at the slave and rode on, still headed for the distant light.

"What-what are you going to do?" asked Maida faintly. "Go on to the villa yonder and ask questions," said Minott dryly. "If Confederates hold it, we'll be well received. If they don't, we'll still manage tO earn a welcome. I intend to camp along a time fault and cross over whenever a time shift brings a Norse settlement in sight. Consquently, I want exact news of places where they've been seen, if such news is to be had."

Maida Haynes pressed close- to Blake. He put a reassuring hand on her arm as the horses trudged on over

the soft ground. The firelight behind them grew brighter. Occasional resinous, coniferous trees flared upward and threw fugitive red glows upon the riding figures. But gradually the glare grew steadier and Stronger. The white walls of a rambling stucco house became visible out buildings barns. A monstrous structure which looked startlingly like a barracks.

It was a farm, an estate, a Roman villa transplanted to the very edge of a wilderness. It was, Blake remembered vaguely, like a picture he had once seen of a Roman villa in England, restored to look as it had been before Rome withdrew her legions from Britain and left the island to savagery and darkness. There were small mounds of curing hay about them, through which the horses picked their way. Blake suddenly wrinkled his nostrils suspiciously. He sniffed.

Maida pressed close to him. Her ups formed words. Lucy Blair rode close to Minott, glancing up at him from time to time. Harris rode beside Bertha Ketterling, and Bertha sat her horse as if she were saddle sore. Tom Hunter clung cloSe to Minott as if for protection, leaving Janet Thompson to look out for herself.

"Jerry," said Maida, "What-what do you think?"

"I don't like it," admitted Blake in a low tone. "But we've got to tag along. I think I smell-"

Then a sudden swarm of figures leaped at the horses-wild figures, naked figures, sweaty and reeking and almost maniacal figures, some of whom clanked chains as they leaped. A voice bellowed orders at them from a distance, and a whip cracked ominously.

Before the struggle ended, there were just two shots fired. Blake fired them both and wheeled about. Then a horse streaked away, and Bertha Ketterling was bawling plaintively, and Tom Hunter babbled hysterically, and Harris swore with a complete lack of his customary air of apology.

Minott seemed to be buried under a mass of foul bodies like the rest, but he rasped at his captors in an authoritative tone. They fell away from him, cringing as if by instinct. And then torches appeared suddenly and slaves appeared in their light-slaves of every possible degree of filth and degradation, of every possible racial mixture, but unanimous in a desperate abjectness before their master amid the torchbearers.

He was a short, fat man, in an only slightly modified toga. He drew it close about his

body as the torchbearers held their flares close to the captives. The torchlight showed the captives, to be sure, but also it showed the puffy, self-indulgent, and invincibly cruel features of the man who owned these slaves and the villa. By his pose and the orders he gave in a curiously corrupt Latin, he showed that he considered he owned the captives, too.

XI

The deputy from Aisne-le-Sur decided that it had been very wise indeed for him to walk in the fresh air. Paris at night is stimulating. That curious attack of vertigo had come of too much champagne. The fresh air had dispelled the fumes. But it was odd that he did not know exactly where he was, though he knew his Paris well.

These streets were strange. The houses were unlike any that he remembered ever having seen before. In the light of the street lamps, and they were unusual, too there was a certain unfamiliar quality about their architecture. He puzzled over it, trying to identify the peculiar flair these houses showed.

He became impatient. After all, it was necessary for him to return home sometime, even though his wife. The deputy from Aisne-le-Sur shrugged. Then he saw bright lights ahead. He hastened his steps. A magnificent mansion, brilliantly illuminated.

The clattering of many hoofs. A cavalry escort, forming up before the house. A pale young man emerged, escorted by a tall, fat man who kissed his hand as if in an ecstasy of admiration. Dismounted cavalrymen formed a lane from the gateway to the car. Two young officers followed the pale young man, ablaze with decorations. The deputy from Aisne-le-Sur noted subconsciously that he did not recognize their uniforms. The car door was open and waiting. There was some oddity about the car, but the deputy could not see clearly just what it was. There was much clicking of heels steel blades at salute. The pale young man patiently allowed the fat man to kiss his hand again. He entered the car. The two bemedaled young officers climbed in after him. The car rolled away. Instantly, the cavalry escort clattered with it, before it, behind it, all around it.

The fat man stood on the sidewalk, beaming and rubbing his hands -together. The dismounted cavalrymen swung to their saddles and trotted briskly after the others.

The deputy from Aisne-le-Sur stared blankly. He saw another pedestrian, halted like himself to regard the spectacle. He was disturbed by the-fact that this pedestrian was clothed in a fashion as perturbingly unfamiliar as these houses and the spectacle he had witnessed.

"Pardon, m'sieu'," said the deputy from Aisne-le-Sur, "I do not recognize my surroundings. Would you tell me-"

"The house," said the other caustically, "is the hotel of Monsieur le Duc de Montigny. Is it possible that in 1935 one does not know of Monsieur le Duc? Or more especially of Madame Ia Duchesse, and what she is and where she lives?"

The deputy from Aisne-le-Sur blinked. "Montigny? Montigny? No," he admitted. "And the young man of the car, whose hand was kissed by-"

"Kissed by Monsieur le Duc?" The stranger stared frankly. "Mon - dieu! Where have you come from that you do not recognize Louis the Twentieth? He has but departed from a visit to madame his mistress."

"Louis-Louis the Twentieth!" stammered the deputy from Aisne-le-Sur. "I-I-do not understand!"

"Fool!" said the- stranger impatiently. "That was the king of France, who succeeded his father as a child of ten and has been free of the regency for but six months-and already ruins France!"

The long-distance operator plugged in with a shaking hand. "Number please. . . . I am sorry, sir, but we are unable to connect you with Camden. . . . The lines are down. . . . Very sorry, sir." She plugged in another line. "Hello. . . . I am sorry, sir, but we are unable to connect you with Jenkintown. The lines are down. Very sorry, sir."

Another call buzzed and lighted up.

"Hello. . . . I am sorry, sir. We are unable to connect you with Dover. The lines are down. . . ." Her hands worked automatically. "Hello. . . . I am sorry, but we are unable to connect you with New York. The lines are down. . . No, sir. We cannot route it by Atlantic City. The lines are down. . . . Yes, sir, I know the telegraph companies cannot guarantee delivery. No, sir, we cannot reach Pittsburgh, either, to get a message through. . . ." Her voice quivered. "No, sir, the lines are down to Scranton. . . . And Harrisburg, too. Yes, sir. . . . I am sorry, but we

cannot get a message of any sort out of Philadelphia in any direction. . . . We have tried to arrange communication by radio, but no calls are answered. . .

She covered her face with her hands for an instant. Then she plugged in and made a call herself:

"Minnie! Haven't they heard anything? . . . Not anything? . . . What? They phoned for more police?

The-the operator out there says there's fighting? She hears a lot of shooting? What is it, Minnie? Don't they even know? . . . They-they're using the armored cars from the banks to fight with, too? But what are they fighting? What? . . . My folks are out there, Minnie! My folks are out there!"

The doorway of the slave barracks closed and great bars slammed against its outer side. Reeking, foul, unbreathable air closed about them like a wave. Then a babbling of voices all about. The clanking of chains. The rustling of straw, as if animals moved. Some one screeched, howled above the others. He began to garn the ascendancy. There was almost some attention paid to him, though a minor babbling continued all about.

Maida said in a strained voice: "I-I can catch a word here and there. He's telling these other slaves how we were captured. It's Latin, of sorts."

Bertha Ketterling squalled suddenly, in the absolute dark. "Somebody touched me!" she bawled. "A man!"

A voice spoke humorously, somewhere near. There was laughter. It was the howled laughter of animals. Slaves were animals, according to the Roman notion. A rustling noise, as if in the noisomefreedom of their barracks the utterly- brutalized slaves drew nearer to the newcomers. There could be sport with new-captured folk, not yet degraded to their final status.

Lucy Blair cried out in a stifled fashion. There was a sharp, incisive crack. Somebody fell. More laughter.

"I knocked him out!" snapped Minott. "Harris! Hunter! Feel around for something we can use as clubs! These slaves intend to haze us, and in their own den there's no attempt to control them. Even if they kill us' they'll only be whipped for it. And the women will-"

Something, snarling, leaped for him in the darkness. The authoritative tone of Minott's voice was hateful. A yapping sound arose. Other figures closed in. Reduced to the status of animals, the slaves, of the Romans behaved as beasts when locked in their monster kennel. The newcomers were hateful if only because they had been freemen, not slaves. The women were clean and they were frightened and they were prey. Chains clanked ominously. Foul breaths tainted the air. The reek of utter depravity, of human beings brought lower than beasts, filled the air. It was utterly dark.

Bertha Ketterling began to blubber noisily. There was the sudden savage sound of a blow meeting flesh. Then pandemonium and battle, and the sudden terrified screams of Lucy Blair. The panting of men who fought. The sound of blows. A man howled. Another shrieked curses. A woman screamed shrilly.

Bang! Bang! Bang-bang! Shots outside, a veritable fusifiade of them. Running feet. Shouts. The bars at the doorway fell. The great doors opened, and men stood in the opeung with whips and torches, bellowing for the slaves to come out and attack something yet unknown. They were being called from their kennel like dogs. Four of the whip men came inside, flogging the slaves out, while the sound of shots continued. The slaves shrank away, or bounded howling for the open air. But there were three of them who would never shrink or cringe again.

Minott and Harris stood embattled in a corner of the slave shed. Lucy Blair, her hair disheveled, crouched behind Minott, who held a heavy beam in desperate readiness for further battle. Harris, likewise, held a clumsy club. With torchlight upon him, his air of savage defiance turned to one of quaint apology for the dead slave at his feet. And Hunter and two of the girls competed in stark panic for a position behind him. Maida Haynes, dead white, stood backed against a wall, a jagged fragment of gnawed bone held dagger wise.

The whips lashed out at them. Voices snarled at them. The whips again. Minott struck out furiously, a huge welt across his face. And revolvers cracked at the great door. Blake stood there, a revolver in each hand, his eyes blazing. A. torchbearer dropped, and the torches flared smokily in the foul mud of the flooring.

"All right," said Blake fiercely. "Come on out!"

Hunter was the first to reach him, babbling and gasping. There was sheer uproar all about. A huge grain shed roared upward in flames. Figures rushed crazily all about it. From the flames came another explosion, then two, then three more.

"Horses over here by the stables," said Blake, his face white aid very deadly indeed. "They haven't unsaddled them. The stable slaves haven't figured out the cinches yet. I put some

revolver bullets in the straw when I set fire to that grain shed. They're going off from time to time."

A figure with whip and dagger raced around an outbuilding and confronted them. Blake shot him down.

Minott said hoarsely: "Give me a revolver, Blake! I want to-"

"Horses first!" snapped Blake.

They raced into a courtyard. Two shots. The slaves fled, howling. Out of the courtyard, bent low in the saddle. They swept close to the villa itself. On a little raised terrace before it, a stout man in an only slightly modified toga raged. A slave groveled before him. He kicked the abject figure and strode out, shouting commands in, a voice that cracked with fury. The horses loomed up and he shookhis fists at the riders, purple with wrath, incapable of fear-because of his beastly rage.

Blake shot him dead, swung off his horse, and stripped the toga from him. He flung it to Maida.

"Take this!" he said savagely. "I could kill-"

There was now no question of his leadership. He led the retreat from the villa. The eight horses headed north again, straight for the luridly flaming forest.

They stopped once more. Behind them, another building of the estate had caught from the first. Sheer confusion ruled. The slaughter of the master disrupted all organization. The roof of the slave barracks caught screams and howls of pure panic reached even the fugitives. Then there were racing, maddened figures rushing here and there in the glare of the fires. Suddenly there was fighting. A howling ululation arose.

Minott worked savagely, stripping clothing from the bodies slain in that incredible, unrecorded conflict of Confederate soldiers and Roman troops, in some unguessable pathway of space and time. Blake watched behind, but he curtly commanded the salvaging of rifles and ammunition from thern dead Confederates, if they were Confederates.

And as Hunter, still gasping hysterically, took the load of yet unfamiliar weapons upon his horse, the eight felt a certain incredible, intolerable vertigo and nausea. The burning forest ahead vanished from their sight. Instead, there was darkness. A noisome smell came down wind; dampness and strange, overpowering perfumes of strange, colored flowers. Something huge and deadly bellowed in the space before them which smelled like a monstrous swamp.

The liner City of Baltimore plowed through the open sea in the first pale light of dawn. The skipper, up on the bridge, wore a worried frown. The radio operator came up. He carried a sheaf of radiograin forms. His eyes were blurry with loss of sleep.

"Maybe it was me, sir," he reported heavily. "I felt awful funny for a while last night, and then all night long I couldn't raise a station. I checked everything and couldn't find anything wrong. But just now I felt awful sick and funny for a minute, and when I come out of it the air was full of code. Here's some of it. I don't understand how I could have been sick so I couldn't hear code, sir, but-"

The skipper said abruptly: "I had that sick feeling, too-dizzy. So did the man at the wheel. So did everybody. Give me the messages."

His eyes ran swiftly over the yellow forms.

"News flash: Half of London disappeared at 2:00 a.m. this morning S.S. Manzanillo reporting. Sea serpent which attacked this ship during the night and seized four sailors returned and was rammed five minutes ago. It seems to be dying. Our bow badly smashed. Two forward compartments flooded. . . . Warning to all mariners. Pack ice seen floating fifty miles off New York harbor. . . . News flash: Madrid, Spain, has undergone inexplicable change. All buildings formerly known now unrecognizable from the air. Air fields have vanished. Mosques seem to have taken the place of churches and cathedrals. A flag bearing the crescent floats. . . . European population of Calcutta seems to have been massacred. S.S. Carib reports harbor empty, all signs of European domination vanished, and hostile mobs lining shore. . .

The skipper of the City of Baltimore passed his hand over his forehead. He looked uneasily at the radio operator. "Sparks," he said gently, "you'd better go see the ship's doctor. Here! I'l-l detail a man to go with you."

"I know," said Sparks bitterly. "I guess I'm nuts, all right. But that's what come through."

He marched away with his head hanging, escorted by a sailor. A little speck of smoke appeared dead ahead.

It became swiftly larger. With the combined speed of the two vessels, in a quarter of an hour the other ship was visible. In half an hour it could be made out clearly. It was long and low and painful black, but the first incredible thing was that it was a paddle steamer, with two sets

of paddles instead of one, and the after set revolving more swiftly than the forward.

The skipper of the City of Baltimore looked more closely through high glasses and nearly dropped them in stark amazement. The flag flying on the other ship was black and white only. A beam wind blew it out swiftly. A white death's head, with two crossed bones below it the traditional flag of piracy!

Signal flags fluttered up in the rigging of the other ship. The skipper of the City of Baltimore gazed at them, stunned.

"Gibberish!" he muttered. "It don't make sense! They aren't international code. Not the same flags at all!"

Then a gun spoke. A monstrous puff of black powder smoke billowed over the other ship's bow. A heavy shot crashed into the forepart of the City of Baltimore: An instant later it exploded.

"I'm crazy, too!" said the skipper dazedly.

A second shot. A third and fourth. The black steamer sheered off and started to pound the City of Baltimore in a businesslike fashion. Half the bridge went overside. The forward cargo hatch blew up with a cloud of smoke from an explosion underneath.

Then the skipper came to. He roared orders. The big ship heeled as it came around. It plunged forward at vastly more than its normal cruising speed The guns on the other ship doubled and redoubled their rate of fire. Then the black ship tried to dodge. But it had not time.

The City of Baltimore rammed it. But at the very last moment the skipper felt certain of his own insanity. It was too late to save the other ship then. The City of Baltimore cut it in two.

XII

The pale gray light of dawn filtered down through an incredible thickness of foliage. It was a subdued, a feeble twilight when it reached the earth where a tiny camp fire burned. That fire gave off thick smoke from watersoaked wood. Hunter tended it, clad in ill-assorted remnants of a gray uniform.

Harris worked patiently at a rifle, trying to understand exactly how it worked. It was unlike any rifle with which he was familiar. The bolt action was not really a bolt action at all, and he'd noticed that there was no rifling in the barrel. He was trying to understand how the long bullet was made to revolve. Harris, too, had substituted Confederate gray for the loin cloth flung him for sole, covering when with the others he was thrust into the slave pen of the Roman villa. Minott sat with his head in his hands, staring at the opposite side of the stream. On his face was all bitterness.

Blake listened. Maida Haynes sat and looked at him. Lucy Blair darted furtive, somehow wistful, glances at Minott. Presently she moved to sit beside him. She asked him an anxious question. The other two girls sat by the fire. Bertha Ketterling was slouched back against a tree-fern trunk. Her head had fallen back. She snored. With the exception of Blake, all of them were barefoot.

Blake came back to the fire. He nodded across the little stream. "We seem to have come to the edge of a time fault," he observed. "This side of the stream is definitely Carboniferous-period vegetation. The other side isn't as primitive, but it isn't of our time, anyhow. Professor Minott!"

Minott lifted his head. "Well?" he demanded bitterly.

"We need some information," said Blake. "We'ye been here for hours, and there's been no further change in time paths that we've noticed. Is, it likely that the scrambling of time and space is ended, sir? If it has, and the time paths stay jumbled, we'll never find our world intact, of course, but we can hunt for colonies, perhaps even cities of our own kind of people."

"If we do," said Minott bitterly, "how far will we get? We're practically unarmed. We can't-"

Blake pointed to the salvaged rifles. "Harris is working on the arms problem now," he said dryly. "Besides, the girls didn't take the revolvers from their saddlebags. We've still two revolvers for each man and an extra pair. Those Romans thought the saddlebags were decorations, perhaps, or they intended to examine the saddles as a whole. We'll make out. What I want to know is, has the time-scrambling process stopped?"

Lucy Blair said something in a low tone. But Minott glanced at Maida Haynes, She was

regarding Blake worshipfully.

Minott's eyes burned. He scowled in surpassing bitterness. "It probably hasn't," he said harshly. I expect it to keep up for probably two weeks or more of duration. I use that term to mean time elapsed in all the time paths simultaneously. We can't help thinking of time as passing on our particular time path only. Yes. I expect disturbances to continue for two weeks or more, if everything in time and space is not annihilated."

Blake sat down.

Insensibly Maida Haynes moved closer to him. "Could you explain, sir? We can only wait here. As nearly as I can tell from the topography, there's a village across this litle stream in our time. It ought to be in sight if our time path ever turns up in view, here."

Minott unconsciously reassumed some of his former authoritative manner. Their capture and scornful dismissal to the status of slaves had shaken all his selfconfidence. Before, he had felt himself not only a member of a superior race, but a superior member of that race. In being enslaved he had been both degraded and scorned. His vanity was still gnawed at by that memory, and his self-confidence shattered by the fact that he had been able to kill only two utterly brutalized slaves, without in the least contributing to his own freedom. Now, for the first time, his voice took on a semblance of its old ring.

"We know that gravity warps space," he said precisely. "From observation we have been able to discover the amount of warping produced by a given mass. We can calculate the mass necessary to warp space so that it will close in completely, making a closed universe, which is unreachable and undetectable in any of the dimensions we know, for example, that if two gigantic star masses of a certain combined mass were rush together, at the instant of their collision there would not be a great cataclysm. They would simply vanish. But they would not cease to exist. They would merely cease to exist in our space and time, They would have created a space and time of their own."

Harris said apologetically, "Like crawling in a hole and pulling the hole in after you. I read something like that in a Sunday supplement once, sir."

Minott nodded. He went on in a near approach to a classroom manner. "Now, imagine that two such universes have been formed. They are both invisible from the space and time in which they were formed. Each exists in its own space and time, just as our universe. does. But each must also exist in a certain, well, hyper-space, because if closed spaces are separated, there must be some sort of something in between them, else they would be together."

"Really," said Blake, "you're talking about something we can infer, but ordinarily can't possibly learn anything about by observation."

"Just so." Minott nodded. "Still, if our space is closed, we must assume that there are other closed spaces. And don't forget that other closed spaces would be as real, are as real, as our closed space is."

"But what does it mean?" asked Blake.

"If there are other closed spaces like ours, and they exist in a common medium, the hyper, space from which they and we alike are sealed off, they might be likened to, say, stars and planets in our space, which are separated by space and yet affect each other through space. Since these various closed spaces are separated by a logically necessary hyper-space, it is at least probable that they should affect each other through that hyper-space."

Blake said slowly, "Then the shiftings of time paths, well, they're the result of something on the order of tidal strains. If another star got close to the sun, our planets would crack up from tidal strains alone. You're suggesting that another closed space has got close to our closed space in hyper-space. It's awfully confused, sir."

"I have calculated it," said Minott. harshly. "The odds are four to one that space and time and universe, every star and every galaxy in the skies, will be obliterated in one monstrous cataclysm when even the past will never have been. But there is one chance in four, and I planned to take full advantage of it. I planned-"

Then he stood up suddenly. His figure straightened. He struck his hands together savagely. "By Heaven, I still plan! We have arms. We have books, technical knowledge, formulas, the cream of the technical knowledge of earth packed in our saddlebags! Listen to me! We cross this stream now. When the next change comes, we strike across whatever time path takes the place of this. We make for the Potomac, where that aviator saw Norse ships drawn up! I have Anglo-Saxon and early Norse vocabularies in the saddlebags. We'll make friends with them. We'll teach them. We'll lead them. We'll make ourselves masters of the world and-"

Harris said apologetically: "I'm sorry, sir, but I promised Bertha I'd take her home, if it was humanly possible. I have to do it. I can't join you in becoming an emperor, even if the breaks are right."

Minott scowled at him. "Hunter?"

"I-I'll do as the others do," said Hunter uneasily. "I-I'd rather go home."

"Fool!" snarled Minott. -

Lucy Blair said loyally: "I-I'd like to be an empress, Professor Minott."

Maida Haynes stared at her. She opened her mouth to speak. Blake absently pulled a revolver from his pocket and looked at it meditatively as Minott clenched and unclenched his hands. The veins stood out on his forehead. He began to breathe heavily.

"Fools!" he roared. "Fools! You'll never get back! Yet you throw away."

Swift, sharp, agonizing vertigo smote them all. The revolver fell from Blake's hands. He looked up. A dead silence fell upon all of them.

Blake stood shakily upon his feet. He looked, and looked again. "That-" He swallowed. "That is King George courthouse, in King George County, in Virginia, in our time I think. Hell! Let's get across that stream."

He picked up Maida in his arms. He started.

Minott moved quickly and croaked, "Wait!"

He had Blake's dropped revolver in his hand. He was desperate, hunted, gray with rage and despair. "I-I offer you, for the last time, I offer you riches, power, women, and-"

Harris stood up, the Confederate rifle still in his hands. He brought the barrel down smartly upon Minott's wrist.

Blake waded across and put Maida safely down upon the shore. Hunter was splashing frantically through the shallow water. Harris was shaking Bertha Ketterling to wake her. Blake splashed back. He rounded up the horses. He loaded the salvaged weapons over a saddle. He shepherded the three remaining girls over. Hunter was out of sight. He had fled toward the painted buildings of the courthouse. Blake led the horses across the stream. Minott nursed his numbed wrist. His eyes blazed with the fury of utter despair.

"Better come along," said Blake quietly.

"And be a professor of mathematics?" Minott laughed savagely. "No! I stay here!"

Blake considered. Minott was a strange, an unprepossessing figure. He was haggard. He was desperate. Standing against the background of a Carboniferous jungle, in the misfitting uniform he had stripped from a dead man in some other path of time, he was even pitiable. Shoeless, unshaven, desperate, he was utterly defiant.

"Wait!" said Blake.

He stripped off the saddlebags from six of the horses. He heaped them on the remaining two. lie led those two back across the stream and tethered them.

Minott regarded him with an implacable hatred. "If I hadn't chosen you," he said harshly, "I'd have carried my original plan through. I knew I shouldn't choose you. Maida liked you too well. And I wanted her for myself. It was my mistake, my only one."

Blake shrugged. He went back across the stream and remounted.

Lucy Blair looked doubtfully back at the solitary, savage figure. "He's brave, anyhow," she said unhappily.

A faint, almost imperceptible, dizziness affected all of them. It passed. By instinct they looked back at the tall jungle. It still stood. Minott looked bitterly after them.

"I've something I want to say!" said Lucy Blair breathlessly. "D-don't wait for me!"

She wheeled her horse about and rode for the stream. Again that faint, nearly imperceptible, dizziness. Lucy slapped her horse's flank frantically.

Maida cried out, "Wait, Lucy! It's going to shift-" And Lucy cried over her shoulder, "That's what I want! I'm going to stay."

She was halfway across the stream more than halfway. Then the vertigo struck all of them.

XIII

Everyone knows the rest of the story. For two weeks longer there were still occasional shiftings of the time paths. But gradually it became noticeable that the number of time faults in Professor Minott's phrase were decreasing in number. At the most drastic period, it has been estimated that no less than twenty-five per cent of the whole earth's surface was at a given moment in some other time path than its own. We do not know of any portion of the earth which did not vary from its own time path at some period of the disturbance.

That means, of course, that practically one hundred per cent of the earth's population encountered the conditions caused by the earth's extraordinary oscillations sidewise in time. Our

scientists are no longer quite as dogmatic as they used to be. The dialectics of philosophy have received a serious jolt. Basic ideas in botany, zoology, and even philology have been altered by the new facts made available by our travels sidewise in time.

Because of course it was the fourth chance which happened, and the earth survived. In our time path, at any rate. The survivors of Minott's exploring party reached King George courthouse barely a quarter of an hour after the time shift which carried Minott and Lucy Blair out of our space and time forever. Blake and Harris searched for a means of transmitting the information they possessed to the world at large. Through a lonely radio amateur a mile from the village, they sent out Minott's theory on short waves. Shorn of Minott's pessimistic analysis of the probabilities of survival, it went swiftly to every part of the world then in its proper relative position. It was valuable, in that it checked explorations in force which in some places had been planned. It prevented, for example, a punitive military expedition from going past a time fault in Georgia, past which a scalping party of Indians from an uncivilized America had retreated. It prevented the dispatch of a squadron of destroyers to finçl and seize Leifsholm, from, which a viking foray had been made upon North Centerville, Massachusetts. A squadron of mapping planes was recalled from reconnaissance work above a Carboniferous swamp in West Virginia, just before the time shift which would have isolated them forever.

Some things, though, no knowledge could prevent. It has been estimated that no less than five thousand persons in the United States are missing from their own space and time, through having adventured into the strange landscapes which appeared so suddenly. Many must have perished. Some, we feel sure, have come in contact with one or another of the distinct civilizations we now know exist.

Conversely, we have gained inhabitants from other time paths. Two cohorts of the twenty-second Roman Legion were left upon our soil near Ithaca, New York. Four families of Chinese peasants essayed to pick berries in what they considered a miraculous strawberrypatch in Virginia, and remained there when that section of ground returned to its proper milieu.

A Russian village remains in Colorado. A French settlement in their time undeveloped Middle West. A part of the northern herd of buffalo has returned to us, two hundred thousand strong, together with a village of Cheyenne Indians who had never seen either horses or firearms. The passenger pigeon, to the number of a billion and a half birds, has returned to North America.

But our losses are heavy. Besides those daring individuals who were carried away upon the strange territories they were exploring, there are the overwhelming disasters affecting Tokyo and Rio de Janeiro and Detroit. The first two we understand. When the causes of oscillation sidewise in time were removed, most of the earth sections returned to their proper positions in their own time paths. But not all. There is a section of PostCambrian jungle left in eastern Tennessee. The Russian village in Colorado has been mentioned, and the French trading post in the Middle West. In some cases sections of the oscillating time paths remained in new positions, remote from their points of origin.

That is the cause of the utter disappearance of Rio and of Tokyo. Where Rio stood, an untouched jungle remains. It is of our own geological period, but it is simply from a path in time in which Rio de Janeiro never happened to be built. On the site of Tokyo stands a forest of extraordinarily primitive type, about which botanists and paleontologists still debate. Somewhere, in some space and time, Tokyo and Rio yet exist and their people still live on. But Detroit, we still do not understand what happened to Detroit.

It was upon an oscillating segment of earth. It vanished from our time, and it returned to our time. But its inhabitants did not come back with it. The city was empty, deserted as if the hundreds of thousands of human beings who lived in it had simply evaporated into the air. There have been some few signs of struggle seen, but they may have been the result of panic. The city of Detroit returned to its own space and time untouched, unharmed, unlooted, and undisturbed. But no living thing, not even a domestic animal or a caged bird, was in it when it came back. We do not understand that at all.

Perhaps if Professor Minott had returned to us, he could have guessed at the answer to the riddle. What fragmentary papers of his have been shown to refer to the time upheaval have been of inestimable value. Our whole theory of what happened depends on the papers Minott left behind as too unimportant to bother with, in addition, of course, to Blake's and Harris account of his explanation to them. Tom Hunter can remember little that is useful. Maida Haynes has given some worthwhile data, but it covers ground we have other observers for. Bertha Ketterling also reports very little.

The answers to a myriad problems yet elude us, but in the saddlebags given to Minott by Blake as equipment for his desperate journey through space and time, the answers to many must remain. Our scientists labor diligently to understand and to elaborate the figures Minott thought

of trivial significance. And throughout the world many minds turn longingly to certain saddlebags, loaded on a led horse, following Minott and Lucy Blair through unguessable landscapes, to unimaginable adventures, with revolvers and textbooks as their armament for the conquest of a world.