

The Forest of Time

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Analog

June 1987

1988 Hugo Nominee (Novella)

It was the autumn of the year and the trees were already showing their death-colors. Splashes of orange and red and gold rustled in the canopy overhead. Oberleutnant Rudolf Knecht, Chief Scout of the Army of the Kittatinny, wore the same hues mottled for his uniform as he rode through the forest. A scout's badge, carefully rusted to dullness, was pinned to his battered campaign cap.

Knecht swayed easily to the rhythm of his horse's gait as he picked his way up the trail toward Fox Gap Fortress. He kept a wary eye on the sur-rounding forest. Periodically, he twisted in the saddle and gazed thought-fully at the trail where it switchbacked below. There had been no sign of pursuit so far. Knecht believed his presence had gone undetected; but even this close to home, it paid to be careful. The list of those who wanted Knecht dead was a long one; and here, north of the Mountain, it was open season on Pennsylvanians.

There were few leaves on the forest floor, but the wind gathered them up and hurled them in mad dances. The brown, dry, crisp leaves of death. Forerunners of what was to be. Knecht bowed his head and pulled the jacket collar tighter about his neck.

Knecht felt the autumn. It was in his heart and in his bones. It was in the news he carried homeward. Bad news even in the best of times, which these were not. Two knick regiments had moved out of the Hudson Val-ley into the Poconos. They were camped with the yankees. Brothers-in--arms, as if last spring's fighting had never happened. General Schneider's fear: New York and the Wyoming had settled their quarrel and made com-mon cause.

Common cause. Knecht chewed on a drooping moustache, now more grey than brown. No need to ask the cause. There was little enough that yanks and knicks could agree on, but killing Pennsylvanians was one.

He remembered that General Schneider was inspecting the fortress line and would probably be waiting for him at Fox Gap. He did not feel the pleasure he usually felt on such occasions. *Na, Konrad, meiner Alt*, he thought. What will you do now? What a burden I must lay upon your shoul-ders. God help the Commonwealth of Pennsylvania.

He pulled in on the reins. There was a break in the trees here, and through it he could see the flank of Kittatinny Mountain. A giant's wall, the ridge ran away, straight and true, becoming bluer and hazier as its forested slopes faded into the distance. Spots of color decorated the sheer face of the Mountain. Fox Gap, directly above him, was hidden by the for-est canopy; but Knecht thought he could just make out the fortresses at Wind Gap and Tott Gap.

As always, the view comforted him. There was no way across the Kit-tatinny, save through the Gaps. And there was no way through the Gaps.

Twenty years since anyone has tried, he thought. He kicked at the horse, and they resumed their slow progress up the trail. Twenty years ago; and we blew the knick riverboats off the water.

That had been at Delaware Gap, during the Piney War. Knecht sighed. The Piney War seemed such a long time ago. A different world—more innocent, somehow. Or perhaps he had only been younger. He remembered how he had marched away, his uniform new and sharply creased. Adventure was ahead of him, and his father's anger behind. *I am too old for such games*, he told himself. *I should be sitting by the fire, smoking my pipe, telling stories to my grandchildren.*

He chewed again on his moustache hairs and spit them out. There had never been any children; and now, there never would be. He felt suddenly alone.

Just as well, he thought. The stories I have to tell are not for the ears of youngsters. What were the stories, really? A crowd of men charged from the trench. Later, some of them came back. What more was there to say? Once, a long time ago, war had been glamorous, with pageantry and uniforms to shame a peacock. Now it was only necessary, and the uniforms were the color of mud.

There was a sudden noise in the forest to his right. Snapping limbs and a muffled grunt. Knecht started, and chastised himself. A surprised scout is often a dead scout as well. He pulled a large bore pistol from his holster and dismounted. The horse, well trained, held still. Knecht stepped into the forest and crouched behind a tall birch tree. He listened.

The noise continued. Too much noise, he decided. Perhaps an animal?

Then he saw the silhouette of a man thrashing through the underbrush, making no attempt at silence. Knecht watched over his gunsight as the man blundered into a stickerbush. Cursing, the other stopped and pulled the burrs from his trousers.

The complete lack of caution puzzled Knecht. The no-man's-land between Pennsylvania and the Wyoming was no place for carelessness. The other was either very foolish or very confident.

The fear ran through him like the rush of an icy mountain stream. Perhaps the bait in a trap, something to hold his attention? He jerked round suddenly, looking behind him, straining for the slightest sign.

But there was nothing save the startled birds and the evening wind.

Knecht blew his breath out in a gust. His heart was pounding. *I am getting too old for this.* He felt foolish, and his cheeks burned, even though there was no one to see.

The stranger had reached the trail and stood there brushing himself off. He was short and dark-complexioned. On his back he wore a rucksack, connected by wires to a device on his belt. Knecht estimated his age at thirty, but the unkempt hair and beard made him look older.

He watched the man pull a paper from his baggy canvas jacket. Even from where he crouched, Knecht could see it was a map, handsomely done in many colors. A stranger with a map on the trail below Fox Gap. Knecht made a decision and stepped forth, cocking his pistol.

The stranger spun and saw Knecht. Closer up, Knecht could see the eyes bloodshot with fatigue. After a nervous glance at the scout's pistol, the stranger smiled and pointed to the map. "Would you believe it?" he asked in English. "I think I'm lost."

Knecht snorted. "I would not believe it," he answered in the same language. "Put in the air your hands up."

The stranger complied without hesitation. Knecht reached out and snatched the map from his hand.

"That's a Pennsylvania Dutch accent, isn't it?" asked his prisoner. "It sure is good to hear English again."

Knecht looked at him. He did not understand why that should be good. His own policy when north of the Mountain was to shoot at English-speaking voices. He gave quick glances to the map while considering what to do.

"Are you hunting? I didn't know it was hunting season."

The scout saw no reason to answer that, either. In a way, he was hunting, but he doubted that the prisoner had meant it that way.

"At least you can tell me where in the damn world I am!"

Knecht was surprised at the angry outburst. Considering who held the pistol on whom, it seemed a rash act at best. He grinned and held up the map. "Naturally, you know where in the damn world you are. While you have this map, it gives only one possibility. You are the spy, *nicht wahr?* But, to humor you..." He pointed northward with his chin. "Downtrail is the Wyoming, where your Wilkes-Barre masters your report in vain will await. Uptrail is *Festung* Fox Gap...and your cell."

The prisoner's shoulders slumped. Knecht looked at the sun. With the prisoner afoot, they should still reach the fort before nightfall. He decided to take the man in for questioning. That would be safer than interrogating him on the spot. Knecht glanced at the map once more. Then he frowned and looked more closely. "United States Geological Survey?" he asked the prisoner. "What are the United States?"

He did not understand why the prisoner wept.

There was a storm brewing in the northwest and the wind whipped through Fox Gap, tearing at the uniform blouses of the sentries, making them grab for their caps. In the dark, amid the rain and lightning, at least one man's grab was too late and his fellows laughed coarsely as he trotted red-faced to retrieve it. It was a small diversion in an otherwise cheerless duty.

What annoyed Festungskommandant Vonderberge was not that Scout Knecht chose to watch the chase also, but that he chose to do so while halfway through the act of entering Vonderberge's office. The wind blew a blizzard of paper around the room and Vonderberge's curses brought Knecht fully into the office, closing the door behind him.

Vonderberge shook his head. He looked at Knecht. "These bits of paper," he said. "These orders and memoranda and requisitions, they are the nerve messages of the army. A thousand messages a day cross my desk, Rudi, and not a one of them but deals with matters of the greatest military import." He clucked sadly. "Our enemies need not defeat us in the field. They need only sabotage our filing system." He rose from his desk and knelt,

gather-ing up papers. "Come, Rudi, quickly. Let us set things aright, else the Com-monwealth is lost!"

Knecht snorted. Vonderberge was mocking him with this elaborate ridicule. In his short time at Fox Gap, Knecht had encountered the Kommandant's strange humor several times. Someone had once told him that Vonderberge had always dreamed of becoming a scientist, but that his fa-ther had pressured him into following the family's military tradition. As a result, his command style was somewhat unorthodox.

Na, *we all arrive by different paths*, Knecht thought. *I joined to spite my father*. It startled him to recall that his father had been dead for many years, and that they had never become reconciled.

Knecht stooped and helped collect the scattered documents. Because he was a scout, however, he glanced at their contents as he did so; and as he absorbed their meaning, he read more and collected less.

One sheet in particular held his attention. When he looked up from it, he saw Vonderberge waiting patiently behind his desk. He was leaning back in a swivel chair, his arms crossed over his chest. There was a knowing smile on the Kommandant's thin aristocratic face.

"Is this all..." Knecht began.

"*Ach, nein*," the Kommandant answered. "There is much, much more. However," he added pointedly, "it is no longer in order."

"But, this is from the prisoner, Nando Kelly?"

"Hernando is the name; not Herr Nando. It is Spanish, I believe." Von-derberge clucked sadly over the documents and began setting them in order.

Knecht stood over the desk. "But this is crazy stuff!" He waved the sheet in his hand and Vonderberge snatched at it vainly. Knecht did not notice. "The man must be crazy!" he said.

Vonderberge paused and cocked an eyebrow at him. "Crazy?" he re-peated. "So says the Hexmajor. He can support his opinion with many fine words and a degree from Franklin University. I am but a simple soldier, a servant of the Commonwealth, and cannot state my own diagnosis in so impressive a manner. On what basis, Rudi, do *you* say he is crazy?"

Knecht sputtered. "If it is not crazy to believe in countries that do not exist, I do not know what is. I have looked on all our world maps and have found no United States, not even in deepest Asia."

Vonderberge smiled broadly. He leaned back again, clasping his hands behind his neck. "Oh, I know where the United States are," he announced smugly.

Knecht made a face. "Tell me then, O Servant of the Commonwealth. Where are they?"

Vonderberge chuckled. "If you can possibly remember so far back as your childhood history lessons, you may recall something of the Fourth Pennamite War."

Knecht groaned. The Pennamite Wars. He could never remember which was which. Both Connecticut and Pennsylvania had claimed the Wyoming Valley and had fought over it several times, a consequence of the English king's cavalier attitude toward land titles. The fourth one? Let's see...1769,1771,1775...

"No," he said finally. "I know nothing at all of the time between 1784 and 1792. I never heard of Brigadier Wadsworth and the Siege of Forty-Fort, or how General Washington and his Virginia militia were mowed down in the crossfire."

"Then you must also be ignorant," continued the Kommandant, "of the fact that the same Congress that sent the General to stop the fighting was also working on a plan to unify the thirteen independent states. Now what do you suppose the name of that union was to be?"

Knecht snorted. "I would be a great fool if I did not say 'The United States.' "

Vonderberge clapped. "Right, indeed, Rudi. Right, indeed. Dickinson was president of the Congress, you know."

Knecht was surprised. "Dickinson? John Dickinson, our first Chancel-lor?"

"The very same. Being a Pennsylvanian, I suppose the yankee settlers thought he was plotting something by dispatching the supposedly neutral Virginians... Well, of course, with Washington dead, and old Franklin incapacitated by a stroke at the news, the whole thing fell apart. Maryland never did sign the Articles of Confederation; and as the fighting among the states grew worse—over the Wyoming, over Vermont, over Chesapeake fishing rights, over the western lands—the others seceded also. All that Adams and the radicals salvaged was their New England Confedera-tion; and even that was almost lost during Shay's Rebellion and General Lincoln's coup..."

Knecht interrupted. "So this almost-was United States was nothing more than a wartime alliance to throw the English out. It was stillborn in the 1780s. Yet Kelly's map is dated this year."

"*Ja*, the map," mused Vonderberge, as if to himself. "It is finely drawn, is it not? And the physical details—the mountains and streams—are as-tonishingly accurate. Only the man-made details are bizarre. Roads and dams that are not there. A great open space called an 'airport.' Towns that are three times their actual size. Did you see how large Easton is shown to be?"

Knecht shrugged. "A hoax."

"Such an elaborate hoax? To what purpose?"

"To fool us. He is a spy. If messages can be coded, why not maps?"

"Ah. You say he is a spy and the map, a code. The Hexmajor says he is mad and the map is the complex working out of a system of delusions. I say..." He picked up a sheaf of papers from his desk and handed them to Knecht. "I say you should read Kelly's notebook."

The scout glanced at the typewritten pages. "These are transcripts," he pointed out. "They were done on the machine in your office. I recognize the broken stem on the r's." He made it a statement.

Vonderberge threw his head back and laughed, slapping the arm of the chair. "Subtlety does not become you, Rudi," he said looking at him. "Yes, they are transcripts. General Schneider has the originals. When I showed the journal to him, he wanted to read it himself. I made copies of the more interesting entries."

Knecht kept his face neutral. "You, and the General, and the Hexma-jor. *Ach!* Kelly is *my* prisoner. I have yet to interview him. I gave you his possessions for safekeeping, not for distribution."

"Oh, don't be so official, Rudi. What are we, Prussians? You were rest-ing, I was bored, and the journal was here. Go ahead. Read it now." Von-derberge waved an inviting hand.

Knecht frowned and picked up the stack. The first few pages were filled with equations. Strange formulae full of inverted A's and backward E's. Knecht formed the words under his breath. "...twelve-dimensional open manifold...Janatpour hypospace...oscillatory time..." He shook his head. "Nonsense," he muttered.

He turned the page and came to a text:

"I am embarking on a great adventure. Does that sound grandiose? Very well, let it. Grandiose ideas deserve grandiose expression. To-morrow, I make my first long-range Jump. Sharon claims that it is too soon for such a field test, but she is too cautious. I've engineered the equipment. I know what it can do. Triple redundancy on critical cir-cuits. Molecular foam memory. I *am* a certified reliability engineer, after all. The short Jumps were all successful. So what could go wrong?

"Rosa could answer that. Sweet Rosa. She is not an engineer. She only sees that it is dangerous. And what can I say? It is dangerous. But when has anything perfectly safe been worth doing? The equipment is as safe as I can make it. I tried to explain about probabilities and hazard analysis to Rosa last night, but she only cried and held me tighter.

"She promised to be in the lab a week from tomorrow when I make my return Jump. A week away from Rosa. A week to study a whole new universe. *Madre de Dios!* A week can be both a moment and an eternity."

Knecht chewed his moustache. The next page was titled "Jump #1" fol-lowed by a string of twelve "coordinate settings." Then there were many pages which Knecht skimmed, detailing a world that never was. In it, the prehistoric Indians had not exterminated the Ice Age big game. Instead, they had tamed the horse, the elephant, and the camel and used the ani-mal power to keep pace technologically with the Old World. Great civi-lizations arose in the river valleys of the Colorado and Rio Grande, and mighty empires spread across the Caribbean. Vikings were in Vinland at the same time the Iroquois were discovering Ireland. By the present day there were colonies on Mars.

Knecht shook his head. "Not only do we have a United States," he mut-tered.

The next entry was briefer and contained the first hint of trouble. It was headed "Jump #2." Except for the reversal of plus and minus signs, the co-ordinate settings were identical with the first set.

"A slight miscalculation. I should be back in the lab with Rosa, but I'm in somebody's apartment, instead. It's still Philly out the window—though a shabbier, more run-down Philly than I remember. I must be close to my home time line because I can recognize most of the University buildings. There's a flag that looks like the stars and stripes on the flagpole in front of College Hall; and something or other black hanging from the lamppost, but I can't make it out. Well, work first; tourism later. I bet I'll need a vernier control. There must be a slight asymmetry in the coordinates.

Knecht skipped several lines of equations and picked up the narrative once more.

"Jump #3. Coordinates...

"Wrong again. I was too hasty in leaving, but that black shape on the lamppost kept nagging at the back of my mind. So I got out my binoculars and studied it. It was a nun in a black habit, hanging in a noose. Hanging a long time, too, by the looks of it. Farther along the avenue, I could see bodies on all the lampposts. Then the wind caught the flag by College Hall and I understood. In place of the stars there was a swastika...

"The settings were not quite right, but I think I know what went wrong now. The very act of my Jumping has created new branches in time and changed the oscillatory time-distance between them. On the shorter Jumps it didn't matter much, but on the longer ones...

"I think I finally have the calculations right. This is a pleasant world where I am, and—thanks to Goodman deVeres and his wife—I've had the time to think the problem through. It seems the Angevin kings still rule in this world, and my host has described what seems like sci-entific magic. Superstition? Mass delusion? I'd like to stay and study this world, but I'm already a week overdue. Darling Rosa must be fran-tic with worry. I think of her often."

The next page was headed "Jump #4" with settings but no narrative entry. This was followed by...

"Jump #5. Coordinates unknown.

"Damn! It didn't work out right and I was almost killed. This isn't an experiment anymore. Armored samurai in a medieval Philadel-phia? Am I getting closer to or farther from Home? I barely escaped them. I rode north on a stolen horse and Jumped as soon as my charge built up. Just in time, too—my heart is still pounding. No time for calculations. I don't even know what the settings were.

"Note: the horse Jumped with me. The field must be wider than I thought. A clue to my dilemma? I need peace and quiet to think this out. I could find it with Goodman deVeres. I have the coordinates for his world. But his world isn't where I left it. When I jumped, I moved it. Archimedes had nothing on me. Haha. That's a joke. Why am I bothering with this stupid journal?

"I dreamed of Rosa last night. She was looking for me. I was right beside her but she couldn't see me. When I awoke, it was still dark. Off to the north there was a glow behind the crest of the hills. City lights? If that is South Mountain, it would be Allentown or Bethle-hem on the other side—or their analogues in this world. I should know by tomorrow night. So far I haven't seen anyone; but I must be cautious.

"I've plenty of solitude here and now. That slag heap I saw from the mountain must have been Bethlehem, wiped out by a single bomb. The epicenter looked to be about where the

steelworks once stood. It happened a long time ago, by the looks of things. Nothing living in the valley but a few scrub plants, insects, and birds.

"I rode out as fast as I could to put that awful sight behind me. I didn't dare eat anything. My horse did and is dead for it. Who knows what sort of mutations have fit the grass for a radioactive environment? I may already have stayed too long. I must Jump, but I daren't materialize inside a big city. I'll hike up into the northern hills before I Jump again."

Knecht turned to the last page. Jump #6. Settings, but no notes. There was a long silence while Knecht digested what he had read. Vonderberge was watching him. Outside, the wind rattled the windows. A nearby lightning strike caused the lights to flicker.

"Herr Festungskommandant..."

"His last Jump landed him right in your lap out on the Wyoming Trail."

"Herr Festungskommandant..."

"And instead of the solitude he sought, he's gotten solitude of another sort."

"You don't believe..."

"Believe?" Vonderberge slammed his palm down on the desk with unexpected violence. He stood abruptly and walked three quick paces to the window, where he gazed out at the storm. His fingers locked tightly behind his back. "Why not believe?" he whispered, his back to the room. "Somewhere there is a world where Heinrich Vonderberge is not trapped in a border fort on the edge of a war with the lives of others heavy on his back. He is in a laboratory, experimenting with electrical science, and he is happy."

He turned and faced Knecht, self-possessed once more.

"What if," he said. "What if the Pennamite Wars had not turned so vicious? If compromise had been possible? Had they lived, might not Washington and Franklin have forged a strong union, with the General as king and the Doctor as prime minister? Might not such a union have spread west, crushing Sequoyah and Tecumseh and their new Indian states before the British had gotten them properly started? Can you imagine a single government ruling the entire continent?"

Knecht said, "No," but Vonderberge continued without hearing him.

"Suppose," he said, pacing the room, "every time an event happens, several worlds are created. One for each outcome." He paused and smiled at Knecht. "Suppose Pennsylvania had not intervened in the Partition of New Jersey? No Piney War. New York and Virginia cut us off from the sea. Konrad Schneider does not become a great general, nor Rudi Knecht a famous spy. Somewhere there is such a world. Somewhere...close.

"Now suppose further that on one of these...these *moeglichwelten* a man discovers how to cross from one to another. He tests his equipment, makes many notes, then tries to return. But he fails."

A crash of thunder punctuated the Kommandant's words. Knecht jumped.

"He fails," Vonderberge continued, "because in the act of jumping he has somehow changed the 'distance.' So, on his return, he undershoots. At first, he is not worried. He makes a minor adjustment and tries again. And misses again. And again, and again, and

again."

Vonderberge perched on the corner of his desk, his face serious. "Even if there is only one event each year, and each event had but two outcomes, why then in ten years do you know how many worlds there would have to be?"

Knecht shook his head dumbly.

"A thousand, Rudi, and more. And in another ten years, a thousand for each of those. Time is like a tree, a forest of trees. Always branching. One event a year? Two possible outcomes? *Ach!* I am a piker! In all of time, how many, many worlds there must be. How to find a single twig in such a for-est?"

Knecht could think of nothing to say. In the quiet of the office, the storm without seemed louder and more menacing.

In the morning, of course, with the dark storm only muddy puddles, Knecht could dismiss the Kommandant's remarks as a bad joke. "What if?" was a game for children, a way of regretting the past. Knecht's alert eye had not missed the row of technofiction books in Vonderberge's office. "What if?" was a common theme in that genre, Knecht understood.

When he came to Kelly's cell to interrogate the prisoner, he found that others had preceded him. The guard at the cell door came to attention, but favored Knecht with a conspiratorial wink. From within the cell came the sound of angry voices. Knecht listened closely, his ear to the thick, iron door, but he could make out none of the words. He straightened and looked a question at the guard. The latter rolled his eyes heavenward with a look of resigned suffering. Knecht grinned.

"So, Johann," he said. "How long has this been going on?"

"Since sunup," was the reply. "The Kommandant came in early to talk to the prisoner. He'd been in there an hour when the Hexmajor arrived. Then there was thunder-weather, believe me, sir." Johann smiled at the thought of two officers bickering.

Knecht pulled two cigars from his pocket humidior and offered one to the guard. "Do you suppose it is safe to leave them both locked in to-gether?" He laughed. "We may as well relax while we wait. That is, if you are permitted..."

The guard took the cigar. "The Kommandant is more concerned that we are experts in how to shoot our rifles than in how to sneak a smoke." There was a pause while Knecht lit his cigar. He puffed a moment, then remarked, "This is good leaf. Kingdom of Carolina?"

Knecht nodded. He blew out a great cloud of acrid smoke. "You know you should not have allowed either of them in to see the prisoner before me."

"Well, sir. You know that, and I know that; but the Hexmajor and the Kommandant, they make their own rules." The argument in the cell reached a crescendo. Johann flinched. "Unfortunately, they do not make the *same* rules."

"Hmph. Is your Kommandant always so...impetuous?" He wanted to know Heinrich Vonderberge better; and one way to do that was to ques-tion the men who followed him.

The guard frowned. "Sir, things may be different in the Scout Corps, but the Kommandant is no fool, in spite of his ways. He always has a reason for what he does. Why,

no more than two months ago—this was before you were assigned here—he had us counting the number of pigeons flying north. He plotted it on a daily chart." Johann laughed at the memory. "Then he sent us out to intercept a raiding party from the Nations. You see, you know how the sachems still allow private war par-ties? Well..."

There was a banging at the cell door and Johann broke off whatever yarn he had been about to spin and opened it. Vonderberge stalked out.

"We will see about that!" he snapped over his shoulder, and pushed past Knecht without seeing him. Knecht took his cigar from his mouth and looked from the Kommandant to the doorway. Hexmajor Ochsenfuss stood there, glaring at the Kommandant's retreating form. "Fool," the doctor mut-tered through clenched teeth. Then he noticed Knecht.

"And what do *you* want? My patient is highly agitated. He cannot un-dergo another grilling."

Knecht smiled pleasantly. "Why, Herr Doctor. He is not your patient until I say so. Until then, he is my prisoner. I found him north of the Moun-tain. It is my function to interview him."

"He is a sick man, not one of your spies."

"The men I interview are never *my* spies. I will decide if he is...sick."

"That is a medical decision, not a military one. Have you read his jour-nal? It is the product of a deluded mind."

"If it is what it appears to be. It could also be the product of a clever mind. Madness as a cover for espionage? Kelly would not be the first spy with an outrageous cover."

He walked past the doctor into the cell. Ochsenfuss followed him. Kelly looked up from his cot. He sat on the edge, hands clasped tightly, leaning on his knees. A night's sleep had not refreshed him. He pointed at Knecht.

"I remember you," he said. "You're the guy that caught me."

The Hexmajor forestalled Knecht's reply. "*Bitte*, Herr Leutnant," he said in Pennsylvaniaish. "You must speak in our own tongue."

"*Warum?*" Knecht answered, with a glance at Kelly. "The prisoner speaks English, *nicht wahr?*"

"Ah, but he must understand German, at least a little. Either our own dialect or the European. Look at him. He is not from the West, despite his Spanish forename. Their skin color is much darker. Nor is he from Co-lumbia, Cumberland, or the Carolina Kingdom. Their accents are most distinctive. And no white man from Virginia on north could be ignorant of the national tongue of Pennsylvania."

"Nor could any European," finished Knecht. "Not since 1917, at any rate. I cannot fault your logic, Herr Doctor; but then, why..."

"Because for some reason he has suppressed his knowledge of German. He has retreated from reality, built himself fantasy worlds. If we commu-nicate only in Pennsylvaniaish as we are doing now, his own desire to com-municate will eventually overcome his 'block' (as we call it); and the process of drawing him back to the real world will have begun."

Knecht glanced again at the prisoner. "On the other hand, it is my duty to obtain information. If the prisoner will speak in English, then so will I."

"But..."

"And I must be alone." Knecht tapped his lapel insignia meaningfully. The double-X of the Scout Corps.

Ochsenfuss pursed his lips. Knecht thought he would argue further, but instead, he shrugged. "Have it your way, then; but remember to treat him carefully. If I am right, he could easily fall into complete withdrawal." He nodded curtly to Knecht and left.

Knecht stared at the closed door. He disliked people who "communicated." Nor did he think Vonderberge was a fool like Ochsenfuss had said. Still, he reminded himself, the Hexmajor had an impressive list of cures to his credit. Especially of battle fatigue and torture cases. Ochsenfuss was no fool, either.

He stuck his cigar back between his teeth. Let's get this over with, he thought. But he knew it would not be that easy.

Within an hour Knecht knew why the others had quarreled. Kelly could describe his fantasy world and the branching time lines very convincingly. But he had convinced Vonderberge that he was telling the truth and Ochsenfuss that he was mad. The conclusions were incompatible, the mixture, explosive.

Kelly spoke freely in response to Knecht's questions. He held nothing back. At least, the scout reminded himself, he *appeared* to hold nothing back. But who knew better than Knecht how deceptive such appearances could be?

Knecht tried all the tricks of the interrogator's trade. He came at the same question time after time, from different directions. He hopscotched from question to question. He piled detail on detail. No lie could be perfectly consistent. Contradictions would soon reveal themselves. He was friendly. He was harsh. He put his own words in the prisoner's mouth to see their effect.

None of it worked.

If Kelly's answers were contradictory, Knecht could not say. When the entire story is fantasy, who can find the errors? It was of a piece with the nature of Kelly's cover. If two facts contradict each other, which is true? Answer: both, but in two different worlds.

Frustrated, Knecht decided to let the prisoner simply talk. Silence, too, was an effective tactic. Many a prisoner had said too much simply to fill an awkward silence. He removed fresh cigars from his pocket humidor and offered one to the prisoner, who accepted it gratefully. Knecht clipped the ends and lit them. When they were both burning evenly, he leaned back in the chair. Nothing like a friendly smoke to set the mind at ease. And off-guard.

"So, tell me in your own words, then, how you on the Wyoming Trail were found."

Kelly grunted. "I wouldn't expect the military mind to understand, or even be interested."

Knecht flushed, but he kept his temper under control. "But I am interested, Herr Kelly. You have a strange story to tell. You come from another world. It is not a story I have often

encountered."

Kelly looked at him, startled, and unexpectedly laughed. "No, not very often, I would imagine."

"*Ach*, that is my very problem. Just what *would* you imagine? Your story is true, or it is false; and if it is false, it is either deliberately so or not. I must know which, so I can take the proper action."

Kelly ran a hand through his hair. "Look. All I want is to get out of here, away from you...military men. Back to Rosa."

"That does not tell me anything. Spy, traveler, or madman, you would say the same."

The prisoner scowled. Knecht waited.

"All right," said Kelly at last. "I got lost. It's that simple. Sharon tried to tell me that a field trip was premature, but I was so much smarter then. Who would think that the distance from B to A was different than the distance from A to B?"

Who indeed? Knecht thought, but he kept the thought to himself. An-other contradiction. Except, grant the premise, and it wasn't a contradiction at all.

"Sure." The prisoner's voice was bitter. "Action requires a force; and action causes reaction. It's not nice to forget Uncle Isaac." He looked Knecht square in the eye. "You see, when I Jumped, my world moved, too. Action, reaction. I created multiple versions of it. In one, my equipment worked and I left. In others, it malfunctioned in various ways and I'm still there. Each time line was slightly displaced from the original location." He laughed again. "How many people can say they've misplaced an entire world?"

"I don't understand," said Knecht. "Why not two versions of *all* worlds? When you, ah, Jumped, you could for many different destinations have gone; and in each one, you either arrived, or you did not."

His prisoner looked puzzled. "But that's not topologically relevant. The Jump occurs in the metacontinuum of the polyverse, so...Ah, hell! Why should I try to convince you?"

Knecht sat back and puffed his cigar. Offhand, he could think of several reasons why Kelly should try to convince him.

"You see," the prisoner continued, "there is not an infinity of possible worlds."

Knecht had never thought there was more than one, so he said nothing. Even the idea that there were two would be staggering.

"And they are not all different in the same way. Each moment grows out of the past. Oh, say..." He looked at his cigar and smiled. He held it out at arm's length. "Take this cigar, for instance. If I drop it, it'll fall to the floor. That is deterministic. So are the rate, the falling time, and the energy of impact. But, I may or may not choose to drop it. That is probabilistic. It is the choice that creates worlds. We are now at a cusp, a bifurcation point on the Thorn manifold." He paused and looked at the cigar. Knecht waited patiently. Then Kelly clamped it firmly between his teeth. "It is far too good a smoke to waste. I chose not to drop it; but there was a small probability that I would have."

Knecht pulled on his moustache, thinking of Vonderberge's speculations of the previous night. Before he had spoken with Kelly. "So you say that...somewhere...there is a world in

which you did?"

"Right. It's a small world, because the probability was small. Temporal cross section is proportional to *a priori* probability. But it's there, close by. It's a convergent world."

"Convergent."

"Yes. Except for our two memories and some ash on the floor, it is indistinguishable from this world. The differences damp out. Convergent worlds form a 'rope' of intertwined time lines. We can Jump back and forth among them easily, inadvertently. The energy needed is low. We could change places with our alternate selves and never notice. The only difference may be the number of grains of sand on Mars. Tomorrow you may find that I remember dropping the cigar; or I might find that you do. We may even argue the point."

"Unconvincingly," said Knecht sardonically.

Kelly chuckled. "True. How could you *know* what I remember? Still, it happens all the time. The courts are full of people who sincerely remember different versions of reality."

"Or perhaps it is the mind that plays tricks, not the reality."

Kelly flushed and looked away. "That happens, too."

After a moment, Knecht asked, "What has this to do with your becoming lost?"

"What? Oh. Simple, really. The number of possible worlds is large, but it's not infinite. That's important to remember," he continued to himself. "Finite. I haven't checked into Hotel Infinity. I can still find my own room, or at least the right floor." He stood abruptly and paced the room. Knecht followed him with his eyes.

"I don't have to worry about worlds where Washington and Jefferson instituted a pharaonic monarchy with a divine god-king. Every moment grows out of the previous moment, remember? For that to happen, so much previous history would have had to be different that Washington and Jefferson would never have been born." He stopped pacing and faced Knecht.

"And I don't have to worry about convergent worlds. If I find the right 'rope,' I'll be all right. Even a parallel world would be fine, as long as it would have Rosa in it." He frowned. "But it mightn't. And if it did, she mightn't know me."

"Parallel?" asked Knecht.

Kelly walked to the window and gazed through the bars. "Sure. Change can be convergent, parallel, or divergent. Suppose, oh suppose Isabella hadn't funded Columbus, but the other Genoese, Giovanni Caboto, who was also pushing for a voyage west. Or Juan de la Cosa. Or the two brothers who captained the *Nina* and the *Pinta*. There was no shortage of bold navigators. What practical difference would it have made? A few names are changed in the history books, is all. The script is the same, but different actors play the parts. The differences stay constant."

He turned around. "You or I may have no counterpart in those worlds. They are different 'ropes.' Even so, we could spontaneously Jump to one nearby. Benjamin Bathurst, the man who walked behind a horse in plain sight and was never seen again. No one took his place. Judge Crater. Ambrose Bierce. Amelia Earhart. Jimmy Hoffa. The Legion II Augusta. Who knows? Some of them may have Jumped."

Kelly inspected his cigar. "Then there are the cascades. For want of a nail, the shoe was lost. The differences accumulate. The worlds diverge. That was my mistake. Jumping to a cascade world." His voice was bitter, self-mocking. "Oh, it'll be simple to find my way back. All I have to do is find the nail."

"The nail?"

"Sure. The snowflake that started the avalanche. What could be simpler?" He took three quick steps along the wall, turned, stepped back, and jammed his cigar out in the ashtray. He sat backward, landing on his cot. He put his face in his hands.

Knecht listened to his harsh breathing. He remembered what Ochsenfuss had said. *If I push him too hard, he could crack.* A spy cracks one way; a madman, another.

After a while, Kelly looked up again. He smiled. "It's not that hard, re-ally," he said more calmly. "I can approximate it closely enough with history texts and logical calculus. That should be good enough to get me back to my own rope. Or at least a nearby one. As long as Rosa is there, it doesn't matter." He hesitated and glanced at Knecht. "You've confiscated my personal effects," he said, "but I would like to have her photograph. It was in my wallet. Along with my identification papers," he added pointedly.

Knecht smiled. "I have seen your papers, Herr 'Professor Doctor' Kelly. They are very good."

"But..."

"But I have drawn others myself just as good."

Kelly shrugged and grinned. "It was worth a try," he said.

Knecht chuckled. He was beginning to like this man. "I suppose it can do no harm," he said, thinking out loud, "to give you a history text. Surely there gives one here in the fortress. If nothing else, it can keep you amused during the long days. And perhaps it can acquaint you with reality."

"That's what the shrink said before."

"The shrink? What...? Oh, I see. The Hexmajor." He laughed. Then he remembered how Ochsenfuss and Vonderberge had quarreled over this man, and he looked at him more soberly. "You understand that you must here stay. Until we know who or what you are. There are three possibilities, and only one is to your benefit." He hesitated a moment, then added, "It gives some here who your story believe, and some not."

Kelly nodded. "I know. Do you believe me?"

"Me? I am a scout. I look. I listen. I try to fit pieces together so they make a picture. I take no direct action. No, Herr Kelly. I do not believe you; but neither do I disbelieve you."

Kelly nodded. "Fair enough."

"Do not thank me yet, Herr Kelly. In our first five minutes of talking it is clear to me you know nothing of value of the Wyoming, or the Nations, or anything. In such a case, my official interest in you comes to an end."

"But unofficially..." prompted the other.

"Ja." Knecht rose and walked to the door. "Others begin to have strong opinions about you, for whatever reasons of their own I do not know. Such are the seeds, and I do not like what may sprout. Perhaps this..." He jabbed his cigar at Kelly, suddenly accusing. "You know more than you show. You playact the hinkledreck *Quatschkopf*. And this, the sowing of discord, may be the very reason for your coming."

He stepped back and considered the prisoner. He gestured broadly, his cigar leaving curlicues of smoke. "I see grave philosophical problems with you, Herr Kelly. We Germans, even we Pennsylvaniaish Germans, are a very philosophical people. From what you say there are many worlds, some only trivially different. I do not know why we with infinitely many Kellys are not deluged, each coming from a world *almost* like your own!"

Kelly gasped in surprise. He stood abruptly and turned to the wall, his back to Knecht. "Of course," he said. "Stupid, stupid, stupid! The transformation isn't homeomorphic. The topology of the inverse sheaf must not be Hausdorff after all. It may only be a Harris proximity." He turned to Knecht. "Please, may I have my calculator, the small box with the numbered buttons...No, damn!" He smacked a fist into his left hand. "I ran the batteries down when I was with Goodman deVeres. Some pencils and paper, then?" He looked eager and excited.

Knecht grunted in satisfaction. Something he had said had set Kelly thinking. It remained to be seen along which lines those thoughts would run.

Rumors flew over the next few days. A small border fort is their natural breeding ground, and Fox Gap was no exception. Knecht heard through the grapevine that Vonderberge had had the Hexmajor barred from Kelly's cell; that Ochsenfuss had telegraphed his superiors in Medical Corps and had Vonderberge overruled. Now there was talk that General Schneider himself had entered the dispute, on which side no one knew; but the general had already postponed his scheduled departure for Wind Gap Fortress and a packet bearing his seal had gone by special courier to Oberkommando Pennsylvaniaish in Philadelphia City. A serious matter if the general did not trust the security of the military telegraph.

The general himself was not talking, not even to Knecht. That saddened the scout more than he had realized it could. Since his talk with the prisoner, Knecht had thought more than once how slender was the chain of chance that had brought Schneider and himself together, the team of scout and strategist that had shepherded the Commonwealth through two major wars and countless border skirmishes.

He dined with the general shortly after submitting his report on Kelly. Dinner was a hearty fare *oishnitz un knepp*, with *deutch-baked* corn, followed by shoofly pie. Afterward, cigars and brandy wine. Talk turned, as it often did, to the Piney War. Schneider deprecated his own role.

"What could I do, Rudi?" he asked. "A stray cannon shot and both Kutz and Rittenhouse were dead. I felt the ball go by me, felt the wind on my face. A foot the other way would have deprived this very brandy of being so thoroughly enjoyed today. Suddenly, I was Commander of the Army of the Delaware, with my forces scattered among the Wachtungs. Rittenhouse had always been the tight-lipped sort. I had no idea what his plans had been. So I studied his dispositions and our intelligence on Enemy's dispositions, and..." A shrug. "I improvised."

Knecht lifted his glass in salute. "Brilliantly, as always."

Schneider grinned through his bushy white muttonchop whiskers. "We mustn't forget who secured that intelligence for me. Brilliance cannot improvise on faulty data. You have never failed me."

Knecht flushed. "Once I did."

"Tcha!" The General waved his hand in dismissal. "The nine hundred ninety-nine other times make me forget the once. Only you constantly re-member."

Knecht remembered how he had misplaced an entire regiment of Virginia Foot. It was not where he had left it, but somewhere else entirely. General Schneider (except that he had been Brigadier Schneider) had salvaged the situation and had protected him from Alois Kutz's anger. He had learned something about Konrad Schneider then: The general never let the short-term interfere with the long-term. He would not sacrifice the future on the whim of the moment.

It had been such a simple error. He had improperly identified the terrain. The Appalachian Mountains of western Virginia looked much the same from ridge to ridge.

Or was it so simple? He recalled his discussion with the prisoner, Kelly. *Ich biete Ihre Entschuldigung, Hen Brigadier*, he imagined himself saying, but I must have slipped over into a parallel universe. In my time line, the Rappahannock Guards were on the north side of the river, not the south.

No, it wouldn't work. To believe it meant chaos: A world without facts. A world where lies hid among multiple truths. And what did the general think? What did Konrad Schneider make of Kelly's tale?

Knecht swirled the brandy in his snifter. He watched his reflection dance on the bloodred liquid. "Tell me, Konrad, have you read my report on the prisoner?"

"Ja, I have."

"And what did you think?"

"It was a fine report, Rudi. As always."

"No. I meant what did you think of the prisoner's story?"

The general lifted his glass to his lips and sipped his brandy. Knecht had seen many men try to avoid answers and recognized all the tactics. Knecht frowned and waited for an answer he knew he could not trust. For as long as Knecht could remember Schneider had been his leader. From the day he had left his father's house, he had followed Colonel, then Brigadier, then General Schneider, and never before had he been led astray. There was an emptiness in him now. He bit the inside of his cheek so that he could feel something, even pain.

Schneider finished his slow, careful sip and set his glass down. He shrugged broadly, palms up. "How could I know? Vonderberge tells me one thing; Ochsenfuss, another. You, in your report, tell me nothing."

Knecht bristled. "There is not enough data to reach a conclusion," he protested.

Schneider shook his head. "No, no. I meant no criticism. You are correct, as always. Yet, our friends *have* reached conclusions. Different conclusions, to be sure, but we don't know which is correct." He paused. "Of course, he *might* be a spy."

"If he is, he is either a very bad one, or a very, very good one."

"And all we know is...What? He loves Rosa and does not love the military. He has some peculiar documents and artifacts and he believes he comes from another world, full of marvelous gadgets..."

"Correction, Herr General. He says he believes he came from another world. There is a difference."

"Hmph. *Ja*, you are right again. What is it you always say? The map is not the territory. The testimony is not the fact. Sometimes I envy our friends their ability to reach such strong convictions on so little reflection. You and I, Rudi, we are always beset by doubts, eh?"

Knecht made a face. "If so, Konrad, your doubts have never kept you from acting."

The general stared at him a moment. Then he roared with laughter, slapping his thigh. "Oh, yes, you are right, Rudi. What should I do without you? You know me better than I know myself. There are two kinds of doubts, *nicht wahr*? One says: What is the right thing to do? The other says: Have I done the right thing? But, to command means to decide. I have never fought a battle but that a better strategy has not come to mind a day or two later. But where would we be had I waited? Eh, Rudi? The second sort of doubt. That is the sort of doubt a commander must have. Never the first sort. And never certainty. Both are disasters."

"And what of Kelly?"

The general reached for his brandy once more. "I will have both the Hexmajor and the Kommandant interview him. Naturally, each will be biased, but in different ways. Between them, we may learn the truth of it." He paused thoughtfully, pursing his lips. "Sooner or later, one will concede the matter. We need not be hasty. No, not hasty at all." He drank the last of his brandy.

"And myself?"

Schneider looked at him. He smiled. "You cannot spend so much time on only one man, one who is almost surely not an enemy agent. You have your spies, scouts, and rangers to supervise. Intelligence to collate. Tell me, Rudi, what those fat knick patrols are planning up in Albany. Have the Iroquois joined them, too? Are they dickering with the Lee brothers to make it a two-front war? I must know these things if I am to...improvise. Our situation is grave. Forget Kelly. He is not important."

After he left the general, Knecht took a stroll around the parapet, exchanging greetings with the sentries. Schneider could not have announced more clearly that Kelly was important. But why? And why keep him out of it?

Fox Gap was a star-fort and Knecht's wanderings had taken him to one of the points of the star. From there, defensive fire could enfilade any attacking force. He leaned his elbows on a gun port and gazed out at the nighttime forest farther down the slope of the mountain. The sky was crisp and clear as only autumn skies could be, and the stars were brilliantly close.

The forest was a dark mass, a deeper black against the black of night. The wind soughed through the maple and elm and birch. The sound reached him, a dry whisper, like crumpling paper. Soon it would be the fall. The leaves were dead; all the life had been

sucked out of them.

He sighed. General Schneider had just as clearly ordered him away from Kelly. He had never disobeyed an order. Angrily, he threw a shard of masonry from the parapet wall. It crashed among the treetops below and a sentry turned sharply and shouted a challenge. Embarrassed, Knecht turned and left the parapet.

Once back in his own quarters, Knecht pondered the dilemma of Kelly. His room was spartan. Not much more comfortable, he thought, than Kelly's cell. A simple bed, a desk and chair, a trunk. Woodcuts on the wall: heroic details of long-forgotten battles. An anonymous room, suitable for a roving scout. Next month, maybe, a different room at a different fort.

So what was Kelly? Knecht couldn't see but three possibilities. A clever spy, a madman, or the most pitiful refugee ever. But, as a spy he was not credible; his story was unbelievable; and he simply did not talk like a mad-man.

And where does that leave us, Rudi? Nowhere. Was there a fourth possibility? It didn't seem so.

Knecht decided it was time for a pipe. Cigars were for talk; pipes for reflection. He stepped to the window of his room as he lit it. The pipe was very old. It had belonged to his grandfather, and a century of tobacco had burned its flavor into the bowl. His grandfather had given it to him the night before he had left home forever, when he had confided his plans to the old man, confident of his approval. He had been, Knecht remembered, about Kelly's age at the time. An age steeped in certainties.

Spy, madman, or refugee? *If the first, good for me; because I caught him. If the second, good for him; because he will be cared for.* He puffed. For two of the three possibilities, custody was the best answer; the only remaining question being what sort of custody. And those two choices were like the two sides of a coin: they used up all probability between them. *Heads I win, Herr Kelly, and tails you lose. It is a cell for you either way. That is obvious.*

So then, why am I pacing this room in the middle of the night, burning my best leaf and tasting nothing?

Because, Rudi, there is just the chance that the coin could land on its edge. If Kelly's outrageous tale were true, custody would not be the best answer. It would be no answer at all.

Ridiculous. It could not be true. He took the pipe from his mouth. The warmth of the bowl in his hand comforted him. Knecht had concluded tentatively that Kelly was no spy. That meant Ochsenfuss was right. Knecht could see that. It had been his own first reaction on reading the notebook. But he could also see why Vonderberge believed otherwise. The man's outlook and Kelly's amiable and sincere demeanor had combined to produce belief.

It was Schneider that bothered him. Schneider had *not* decided. Knecht was certain of that. And that meant...What? With madness so obvious, Schneider saw something else. Knecht had decided nothing because he was interested only in spies. Beyond that, what Kelly was or was not meant nothing.

Even if his tale is true, he thought, it is none of my concern. My task is done. I have taken in a suspicious stranger under suspicious circumstances. It is for higher authorities to puzzle it out. Why should I care what the answer is?

Because, Rudi, it was you who brought him here.

Knecht learned from Johann the guard that Vonderberge spent the mornings with Kelly; and Ochsenfuss, the afternoons. So when Knecht brought the history book to the cell a few days later, he did so at noon, when no one else was about. He had made it a habit to stop by for a few minutes each day.

He nodded to Johann as he walked down the cell-block corridor. "I was never here, soldier," he said. Johann's face took on a look of amiable unawareness.

Kelly was eating lunch, a bowl of thick rivel soup. He had been provided with a table, which was now littered with scribbled pages. Knecht recognized the odd equations of Kelly's "logical calculus." He handed the prisoner the text: *The History of North America*. Kelly seized it eagerly and leafed through it.

"Thanks, Lieutenant," he said. "The shrink brought me one, too; but it's in German, and I couldn't make sense of it."

"Pennsylvaniaanish," Knecht corrected him absently. He was looking at the other book. It was thick and scholarly. A good part of each page consisted of footnotes. He shuddered and put it down.

"What?"

"Pennsylvaniaanish," he repeated. "It is a German dialect, but it is not *Hochdeutsch*. It is Swabian with some English mixed in. The spelling makes different sometimes. A visitor from the Second Reich would find it nearly unintelligible, but..." An elaborate shrug. "What can one expect from a Prussian?"

Kelly laughed. He put his soup bowl aside, finished. "How did that happen?" he asked. "I mean, you folks speaking, ah, Pennsylvaniaanish?"

Knecht raised an eyebrow. "Because we are Pennsylvanians."

"So were Franklin, Dickinson, and Tom Penn."

"Ah, I see what you are asking. It is simple. Even so far back as the War Against the English the majority of Pennsylvanians were *Deutsch*, German-speakers. So high was the feeling against the English—outside of Philadelphia City, that is—that the Assembly German the official language made. Later, after the Revolution in Europe, many more from Germany came. They were fleeing the Prussians and Austrians."

"And from nowhere else? No Irish? No Poles, Italians, Russian Jews? 'I lift my lamp beside the golden door.' What happened to all of that?"

"I don't understand. *Ja*, some came from other countries. There were Welsh and Scots-Irish here even before the War. Others came later. A few, not many. Ranger Oswoski's grandparents were Polish. But, when they come here, then Pennsylvaniaanish they must learn."

"I suppose with America so balkanized, it never seemed such a land of opportunity."

"I don't understand that, either. What is 'balkanized'?"

Kelly tapped with his pencil on the table. "No," he said slowly, "I sup-pose you wouldn't." He aimed the pencil at the history book. "Let me read this. Maybe I'll be able to explain things better."

"I hope you find in it what you need."

Kelly grinned, all teeth. "An appropriately ambiguous wish, Lieutenant. 'What I need.' That could mean anything. But, thank you. I think I will." He hesitated a moment. "And, uh, thanks for the book, too. You've been a big help. You're the only one who comes here and listens to me. I mean, *really* listens."

Knecht smiled. He opened the door, but turned before leaving. "But, Herr Kelly," he said, "it is my job to listen."

Knecht's work absorbed him for several days. Scraps of information filtered in from several quarters. He spent long hours in his office going over them, separating rumor from fact from possible fact. Sometimes, he sent a man out to see for himself and waited in nervous uncertainty until the pigeons flew back. Each night, he threw himself into his rack exhausted. Each morning, there was a new stack of messages.

He moved pins about in his wall map. Formations whose bivouac had been verified. Twice he telegraphed the Southern Command using his personal code to discover what the scouts down along the Monongahela had learned. Slowly, the spaces filled in. The pins told a story. Encirclement.

Schneider came in late one evening. He stood before the map and studied it for long minutes in silence. Knecht sipped his coffee, watching. The general drew his forefinger along the northwestern frontier. There were no pins located in Long House territory. "Curious," he said aloud, as if to himself. Knecht smiled. Five rangers were already out trying to fill in that gap. Schneider would have his answer soon enough.

Knecht had almost forgotten Kelly. There had been no more time for his noontime visits. Then, one morning he heard that Vonderberge and Ochsenfuss had fought in the officers' club. Words had been exchanged, then blows. Not many, because the chief engineer had stopped them. It wasn't clear who had started it, or even how it had started. It had gotten as far as it had only because the other officers present had been taken by surprise. Neither man had been known to brawl before.

Knecht was not surprised by the fight. He knew the tension between the two over Kelly. What did surprise him was that Schneider took no official notice of the fight.

Something was happening. Knecht did not know what it was, but he was determined to find out. He decided to do a little intramural spy work of his own.

Knecht found the Hexmajor later that evening. He was sitting alone at a table in the officers' club, sipping an after-dinner liqueur from a thin glass, something Knecht found vaguely effeminate. He realized he was taking a strong personal dislike to the man. Compared to Vonderberge, Ochsenfuss was haughty and cold. Elegant, Knecht thought, watching the man drink. That was the word: elegant. Knecht himself liked plain, blunt-spoken men. But scouts, he told himself firmly, must observe what is, not what they wish to see. The bar orderly handed him a beer stein and he strolled casually to Ochsenfuss's table.

"Ah, Herr Doctor," he said smiling. "How goes it with the prisoner?"

"It goes," said Ochsenfuss, "but slowly."

Knecht sat without awaiting an invitation. He thought he saw a brief glimmer of surprise in the other's face, but the Hexmajor quickly recovered his wooden expression. Knecht was aware that Vonderberge, at a corner table, had paused in his conversation with the chief engineer and was watching them narrowly.

"A shame the treatment cannot go speedier," he told Ochsenfuss.

A shrug. "Under such circumstances, the mind must heal itself."

"I remember your work with Ranger Harrison after we rescued him from the Senecas."

Ochsenfuss sipped his drink. He nodded. "Yes, I recall the case. His condition was grave. Torture does things to a man's mind; worse in many ways than what it does to his body."

"May I ask how you are treating Kelly?"

"You may."

There was a long silence. Then Knecht said, "How are you treating him?" He could not detect the slightest hint of a smile on the doctor's face. He was surprised. Ochsenfuss had not seemed inclined to humor of any sort.

"I am mesmerizing him," the Hexmajor said. "Then I allow him to talk about his fantasies. In English," he admitted grudgingly. "I ply him for details. Then, when he is in this highly suggestible state, I point out the contradictions in his thinking."

"Contradictions..." Knecht let the word hang in the air.

"Oh, many things. Heavier-than-air flying machines: a mathematical impossibility. Radio, communication without connecting wires: That is action at a distance, also impossible. Then there is his notion that a single government rules the continent, from Columbia to New England and from Pontiac to Texas. Why, the distances and geographical barriers make the idea laughable.

"I tell him these things while he is mesmerized. My suggestions lodge in what we call the subconscious and gradually make his fantasies less credible to his waking mind. Eventually he will again make contact with reality.

"Tell me something, Herr Doctor."

They both turned at the sound of the new voice. It was Vonderberge. He stood belligerently, his thumbs hooked in his belt. He swayed slightly and Knecht could smell alcohol on his breath. Knecht frowned unhappily.

Ochsenfuss blinked. "Yes, Kommandant," he said blandly. "What is it?"

"I have read that by mesmerization one can also implant false ideas."

Ochsenfuss smiled. "I have heard that at carnival sideshows, the mesmerist may cause members of the audience to believe that they are ducks or some such thing."

"I was thinking of something more subtle than that."

The Hexmajor's smile did not fade, but it seemed to freeze. "Could you be more specific."

Vonderberge leaned towards them. "I mean," he said in a low voice, "the obliteration of true memories and their replacement with false ones."

Ochsenfuss tensed. "No reputable hexdoctor would do such a thing."

Vonderberge raised a palm. "I never suggested such a thing, either. I only asked if it were possible."

Ochsenfuss paused before answering. "It is. But the false memories would inevitably conflict with a thousand others and, most importantly, with the evidence of the patient's own senses. The end would be psy-chosis. The obliteration of *false* memories, however..."

Vonderberge nodded several times, as if the Hexmajor had confirmed a long-standing belief. "I see. Thank you, Doctor." He turned and looked at Knecht. He touched the bill of his cap. "Rudi," he said in salutation, then turned and left.

Ochsenfuss watched him go. "There is a man who can benefit from therapy. He would reject reality if he could."

Knecht remembered Vonderberge's outburst in his office during the storm. He remembered, too, the map in his own office. "So might we all," he said. "Reality is none too pleasant these days. General Schneider believes..."

"General Schneider," interrupted Ochsenfuss, "believes what he wants to believe. But truth is not always what we want, is it?" He looked away, his eyes focused on the far wall. "Nor always what we need." He took another sip of his liqueur and set the glass down. "I am not such a fool as he seems to think. For all that he primes me with questions to put to Kelly, and the interest he shows in my reports, he still has not decided what to do with my patient. He should be in hospital, in Philadelphia."

For the briefest moment, Knecht thought he meant Schneider should be in hospital. When he realized the confusion, he laughed. Ochsenfuss looked at him oddly, and Knecht took a pull on his mug to hide his embarrassment.

"If I could use mescal or peyote to heighten his suggestibility," Ochsenfuss continued to no one in particular. "Or if I could keep our friend the Kommandant away from my patient..." He studied his drink in silence, then abruptly tossed it off. He looked at his watch and waved off a hovering orderly. "Well, things cannot go on as they are. Something must break." He laughed and rose from the table. "At least there are a few of us who take a hard-headed and practical view of the world, eh, Leutnant?" He patted Knecht on the arm and left.

Knecht watched him go. He took another drink of beer and wiped the foam from his lips with his sleeve, thinking about what the Hexmajor had said.

A few days later, a carrier pigeon arrived and Knecht rode out to meet its sender at a secret rendezvous deep inside Wyoming. Such meetings were always risky, but his agent had spent many years working her way into a position of trust. It was a mask that would be dropped if she tried to leave the country. Knecht wondered what the information was. Obviously more than could be entrusted to a pigeon.

But she never came to the rendezvous. Knecht waited, then left a sign on a certain tree

that he had been there and gone. He wondered what had happened. Perhaps she had not been able to get away after all. Or perhaps she had been unmasked and quietly executed. Like many of the Old-style Quakers, Abigail Fox had learned English at her mother's knee and spoke without an accent; but one never knew what trivial detail would prove fatal.

Knecht chewed on his moustache as he rode homeward. He had not seen Abby for a long time. Now he didn't know if he would ever see her again. The worst part would be never knowing what had happened. Knecht hated not knowing things. That's why he was a good scout. Even bad news was better than no news.

Well, perhaps another pigeon would arrive, explaining everything, arranging another rendezvous. *But how could you be sure, Rudi, that it re-ally came from her?* Spies have been broken before, and codes with them. One day, he knew, he would ride out to a meeting and not come back. He felt cold and empty. He slapped his horse on the rump and she broke into a trot. He was afraid of death, but he would not send others to do what he would not.

It had been two weeks to rendezvous and back, and Schneider was still at Fox Gap when Knecht returned. The rumors had grown up thick for harvesting. Between the front gate and the stables five soldiers and two officers asked him if a command shake-up were coming. His friendship with the general was well-known, and why else would Schneider stay on?

Why else, indeed. Kelly. Knecht was certain of it, but the why still eluded him.

Catching up on his paperwork kept Knecht at his desk until well after dark. When he had finished, he made his way to Vonderberge's quarters. Knecht's thought was to pay a "social call" and guide the conversation around to the subject of Kelly. Once he arrived, however, he found him-self with some other officers, drinking dark beer and singing badly to the accompaniment of the chief engineer's equally bad piano playing. It was, he discovered, a weekly ritual among the permanent fortress staff.

Ochsenfuss was not present, but that did not surprise him.

He was reluctant to bring up the business of the prisoner in front of the other officers, so he planned to be the last to leave. But Vonderberge and the fortress staff proved to have a respectable capacity for drinking and singing, and Knecht outlasted them only by cleverly passing out in the corner, where he was overlooked when Vonderberge ushered the others out.

"Good morning, Rudi."

Knecht opened his eyes. The light seared his eyes and the top of his head fell off and shattered on the floor. "Ow," he said.

"Very eloquent, Rudi." Vonderberge leaned over him, looking impossibly cheerful. "That must be some hangover."

Knecht winced. "You can't get hangovers from beer."

Vonderberge shrugged. "Have it your way." He held out a tall glass. "Here, drink this."

Knecht sniffed the drink warily. It was dark and red and pungent. "What is it?" he asked suspiciously.

"Grandmother Vonderberge's Perfect Cure for Everything. It never fails."

"But what's in it?"

"If I told you, you wouldn't drink it. Go ahead. Grandmother was a wise old bird. She outlasted three husbands."

Knecht drank. He shuddered and sweat broke out on his forehead. "Small wonder," he gasped. "She probably fed them this."

Vonderberge chuckled and took the glass back. "You were in fine form last night. Fine form. Who is Abby?"

Knecht looked at him. "Why?"

"You kept drinking toasts to her."

He looked away, into the distance. "She was...someone I knew."

"Like that, eh?" Vonderberge grinned. Knecht did not bother to correct him.

"You should socialize more often, Rudi," continued the Kommandant. "You'll find we're not such bad sorts. You have a good baritone. It gave the staff a fuller sound." Vonderberge gestured broadly to show how full the sound had been. "We need the higher registers, though. I've thought of having Heinz and Zuckerman gelded. What do you think?"

Knecht considered the question. "Where do they stand on the promotion list?"

Vonderberge looked at him sharply. He grinned. "You are beginning to show a sense of humor, Rudi. A sense of humor."

Knecht snorted. He was easily twenty years the Kommandant's senior. He knew jokes that had been old and wrinkled before Vonderberge had been born. He recalled suddenly that Abigail Fox had been an alto. There were other memories, too; and some empty places where there could have been memories, but weren't. *Ach*, for what might have been! It wasn't right for spymaster and spy to be too close. He wondered if Kelly had a world somewhere where everything was different.

Vonderberge had his batman serve breakfast in rather than go to the mess. He invited Knecht to stay and they talked over eggs, scrapple, and coffee. Knecht did not have to lead into the subject of Kelly because Vonderberge raised it himself. He unrolled a sheet of paper onto the table after the bat-man had cleared it, using the salt and pepper mills to hold down the curled ends.

"Let me show you," he said, "what bothers me about Kelly's world."

A great many things about Kelly's world bothered Knecht, not the least of which was the fact that there was no evidence it even existed; but he put on a polite face and listened attentively. Was Vonderberge beginning to have doubts?

The Kommandant pointed to the sheet. Knecht saw that it was a table of inventions, with dates and inventors. Some of the inventions had two dates and two inventors, in parallel

columns.

"Next to each invention," said Vonderberge, "I've written when and by whom it was invented. The first column is our world; the second, Kelly's, as nearly as he can remember. Do you notice anything?"

Knecht glanced at the list. "Several things," he replied casually. "There are more entries in the second column, most of the dates are earlier, and a few names appear in both columns."

Vonderberge blinked and looked at him. Knecht kept his face composed.

"You're showing off, aren't you, Rudi?"

"I've spent a lifetime noticing details on documents."

"But do you see the significance? The inventions came earlier and faster in Kelly's world. Look how they *gush* forth after 1870! Why? How could they have been so much more creative? In the early part of the list, many of the same men are mentioned in both columns, so it is not individual genius. Look..." His forefinger searched the first column. "The electrical telegraph was invented, when? In 1875, by Edison. In Kelly's world, it was invented in the 1830s; by a man named Morse."

"The painter?"

"Apparently the same man. Why didn't he invent it here? And see what Edison did in Kelly's world: The electrical light, the moving picture projector, dozens of things we never saw until the 1930s."

Knecht pointed to an entry. "Plastics," he said. "We discovered them first." He wondered what "first" meant in this context.

"That is the exception that proves the rule. There are others. Daguerre's photographic camera, Foucault's gyroscope. They are the same in both worlds. But overall there is a pattern. Not an occasional marvel, every now and then; but a multitude, every year! By 1920, in Kelly's world, steamships, *heavier-than-air* craft, railroads, *voice* telegraphy with *and without* wires, horseless carriages, they were an old hat. Here, they are still wonders. Or wondered about."

Inventions and gadgets, decided Knecht. Those were Vonderberge's secret passion, and Kelly had described a technological faerieland. No wonder the Kommandant was entranced. Knecht was less in awe, himself. He had seen the proud ranks of the 18th New York mowed down like corn by the Pennsylvaniaish machine guns at the Battle of the Raritan. And he had not forgotten what Kelly had written in his notebook: There were bombs that destroyed whole cities and poisoned the land for years after.

Vonderberge sighed and rolled up his list. He tied a cord around it. "It is difficult, Rudi," he said. "Very difficult. Your general, he only wants to hear about the inventions. He does not wonder why there are so many. Yet, I feel that this is an important question."

"Can't Kelly answer it?"

"He might. He has come close to it on several occasions; but he is...confused. Ochsenfuss sees to that."

Knecht noticed how Vonderberge's jaw set. The Kommandant's usual bantering tone

was missing.

Vonderberge pulled a watch from his right pants pocket and studied its face. "It is time for my appointment with Kelly. Why don't you come with me. I'd like your opinion on something."

"On what?"

"On Kelly."

Knecht sat backward on a chair in the corner of the cell, leaning his arms on the back. A cigar was clamped tightly between his teeth. It had gone out, but he had not bothered to relight it. He watched the proceedings between Kelly and Vonderberge. So far, he did not like what he had seen.

Kelly spoke hesitantly. He seemed distracted and lapsed into frequent, uncomfortable silences. The papers spread out on his table were blank. No new equations. Just doodles of flowers. Roses, they looked like.

"Think, Kelly," Vonderberge pleaded. "We were talking of this only yes-terday."

Kelly pursed his lips and frowned. "Were we? *Ja*, you're right. I think we did. I thought it was a dream."

"It was not a dream. It was real. You said you thought the Victorian Age was the key. What was the Victorian Age?"

Kelly looked puzzled. "Victorian Age? Are you sure?"

"Yes. You mentioned Queen Victoria..."

"She was never queen, though."

Vonderberge clucked impatiently. "That was in this world," he said. "In your world it must have been different."

"In my world..." It was half a statement, half a question. Kelly closed his eyes, hard. "I have such headaches, these days. It's hard to remember things. It's all confused."

Vonderberge turned to Knecht. "You see the problem?"

Knecht removed his cigar. "The problem," he said judiciously, "is the source of his confusion."

Vonderberge turned back to Kelly. "I think we both know who that is."

Kelly was losing touch, Knecht thought. That was certain. But was he losing touch with reality, or with fantasy?

"Wait!" Kelly's eyes were still closed, but his hand shot out and gripped Vonderberge's wrist. "The Victorian Age. That was the time from the War Between the States to World War I." He opened his eyes and looked at Von-derberge. "Am I right?"

Vonderberge threw his hands up. "Tchah! Why are you asking *me*?"

Knecht chewed thoughtfully on his cigar. *World wars? And they were numbered?*

"What has this 'Victorian Age' to do with your world's inventiveness?"

Kelly stared at a space in the air between them. He rapped rhythmically on the table with his knuckles. "Don't push it," he said. "I might lose the... Yes. I can hear Tom's voice explaining it." The eyes were unfocused. Knecht wondered what sort of mind heard voices talking to it. "What an odd-looking apartment it was. We were just BS'ing. Sharon, Tom, and ... a girl, and I. The subject came up, but in a different context."

They waited patiently for Kelly to remember.

"Critical mass!" he said suddenly. "That was it. The rate at which new ideas are generated depends in part on the accumulation of past ideas. The more there are, the more ways they can be combined and modified. Then, boom." He gestured with his hands. "An explosion." He laughed shrilly; sobered instantly. "That's what happened during the Victorian Age. That's what's happening now, but slower."

A slow explosion? The idea amused Knecht. "Why slower?" he asked.

"Because of the barriers! Ideas must circulate freely if they're to trigger new ones. The velocity of ideas is as important to culture and technology as, as the velocity of money is to the economy. The United States would have been the largest free trade zone in the world. The second largest was England. Not even the United Kingdom, just England. Can you imagine? Paying a toll or a tariff every few miles?"

"What has commerce to do with ideas?" asked Vonderberge.

"It's the traveling people who carry ideas from place to place. The merchants, sailors, soldiers. At least until an international postal system is established. And radio. And tourism."

"I see..."

"But look at the barriers we have to deal with! The largest nation on the Atlantic seaboard is what? The Carolina Kingdom. Some of the Indian states are larger, but they don't have many people. How far can you travel before you pay a tariff? Or run into a foreign language like English or Choctaw or French? Or into a military patrol that shoots first and asks questions later? No wonder we're so far behind!"

Knecht pulled the cigar from his mouth. "We?" he asked. Vonderberge turned and gave him an anxious glance, so he, too, had noticed the shift in Kelly's personal pronoun.

The prisoner was flustered. "You," he said. "I meant 'you.' Your rate of progress is slower. I..."

Knecht forestalled further comment. "No, never mind. A slip of the tongue, *ja?*" He smiled to show he had dismissed the slip. He knew it was important; though in what way he was not yet sure. He took a long puff on his cigar. "Personally, I have never thought our progress slow. The horseless carriage was invented, what? 1920-something, in Dusseldorf. In less than fifty years you could find some in all the major cities. Last year, two nearly collided on the streets of Philadelphia! Soon every well-to-do family will have one."

The prisoner laughed. It was a great belly laugh that shook him and shook him until it turned imperceptibly into a sob. He squeezed his eyes tight.

"There was a man," he said distantly. "Back in my hometown of Longmont, Colorado." He opened his eyes and looked at them. "That would be in Nuevo Aztlan, if it existed, which it doesn't and never has..." He paused and shook his head, once, sharply, as if to clear it. "Old Mr. Brand. I was just a kid, but I remember when the newspapers and TV came around. When Old Brand was a youngster, he watched his dad drive a stagecoach. Before he died, he watched his son fly a space shuttle." He looked intently at Knecht. "And you think it is wonderful that a few rich people have hand-built cars after half a century?"

He laughed again; but this time the laugh was brittle. They watched him for a moment, and the laugh went on and on. Then Vonderberge leaned forward and slapped him sharply, twice.

Knecht chewed his moustache. What the prisoner said made some sense. He could see how technological progress—and social change with it—was coupled with free trade and the free exchange of ideas. Yet, he wasn't at all sure that it was necessarily a good thing. There was a lot to be said for stability and continuity. He blew a smoke ring. He wondered if Kelly were a social radical, driven mad by his inability to instigate change, who had built himself a fantasy world in which change ran amok. That made sense, too.

He glanced at his cigar, automatically timing the ash. A good cigar should burn at least five minutes before the ash needed knocking off.

Suddenly, he felt a tingling in his spine. He looked at the cigar as if it had come alive in his hand. It had gone out—he remembered that clearly. Now, it was burning, and he could not recall relighting it. He looked at the ashtray. *Yes, a spent match. I relit it, of course. It was such an automatic action that I paid it no mind.* That was one explanation. It was his memory playing tricks, not his reality. But the tingling in his spine did not stop.

He looked at Kelly, then he carefully laid his cigar in the ashtray to burn itself out.

"You just wait, though," Kelly was saying to Vonderberge. "Our curve is starting up, too. It took us longer, but we'll be reaching critical mass soon. We're maybe a hundred years off the pace. About where the other...where my world was just before the world wars."

That simple pronouncement filled Knecht with a formless dread. He watched the smoke from his smoldering cigar and saw how it rose, straight and true, until it reached a breaking point. There, it changed abruptly into a chaos of turbulent streamers, swirling at random in the motionless air. *Then we could do the same,* he thought. *Fight worldwide wars.*

Afterward, Knecht and Vonderberge spoke briefly as they crossed the parade ground. The sun was high in the sky, but the air held the coolness of autumn. Knecht was thoughtful, his mind on his cigar, on alternate realities, on the suddenness with which stability could turn to chaos.

"You saw it, didn't you?" asked Vonderberge.

For a moment he thought the Kommandant meant his mysteriously relit cigar. "Saw what?" he replied.

"Kelly. He has difficulty remembering his own world. He becomes confused, disoriented, melancholy."

"Is he always so?"

"Today was better than most. Sometimes I cannot stop his weeping."

"I have never heard him talk so long without mentioning his Rosa."

"Ah, you noticed that, too. But three days ago he was completely lucid and calculated columns of figures. Settings, he said, for his machine. They take into account, ah... 'many-valued inverse functions.' " Vonderberge smiled. "Whatever that means. And, if he ever sees his machine again."

"His machine," said Knecht. "Has anyone handled it?"

"No," said Vonderberge. "Ochsenfuss doesn't think it matters. It's just a collection of knobs and wires."

"And you?"

"Me?" Vonderberge looked at him. "I'm afraid to."

"Yet, its study could be most rewarding."

"A true scout. But if we try, four things could happen, and none of them good."

Knecht tugged on his moustaches. "We could open it up and find that it is an obvious fake, that it couldn't possibly work."

"Could we? How would it be obvious? We would still wonder whether the science were so advanced that we simply did not understand how it did work. Like a savage with a steam engine." The Kommandant was silent for a moment.

"That's one. You said four things could happen."

"The other three assume the machine works." He held up his fingers to count off his points. "Two: In our ignorance, we damage it irreparably, ma-rooning Kelly forever. Three: We injure ourselves by some sort of shock or explosion."

"And four?"

"Four: We transport ourselves unwittingly to another world."

"A slim possibility, that."

Vonderberge shrugged. "Perhaps. But the penalty for being wrong is..."

"Excessive," agreed Knecht dryly.

"I *did* examine his 'calculator,' you know."

Knecht smiled to himself. He had wondered if the Kommandant had done that, too. Knecht had learned little from it, himself.

"It was fine work: the molded plastic, the tiny buttons, the intricate cir-cuits and parts."

"Not beyond the capabilities of any competent electrosmith."

"What! Did you see how small the batteries were? And the, what did he call them? The chips? How can you say that?"

"I didn't mean we could build a calculating engine so small. But, is it a calculating

engine? Did you see it function? No. Kelly says the batteries have gone dead. Which is convenient for him. Our regimental electrosmith could easily construct a copy that does the same thing: mainly, nothing."

Vonderberge stopped and held him by the arm. "Tell me, Rudi. Do you believe Kelly or not?"

"I..." Well, did he? The business with the cigar was too pat. It seemed important only because of Kelly's toying with another cigar a few weeks before. Otherwise, he would never have noticed, or thought nothing even if he had. Like the prophetic dream: It seems to be more than it is because we only remember them when they come true. "I...have no convincing evidence."

"Evidence?" asked Vonderberge harshly. "What more evidence do you need?"

"Something solid," Knecht snapped back. *Something more than that I like the prisoner and the Kommandant and I dislike the Hexmajor.* "Some-thing more than a prisoner's tale," he said. "That becomes more confused as time goes on."

"That is Ochsenfuss's bungling!"

"Or his success! Have you thought that perhaps the Hexmajor is *curing* Kelly of a long-standing delusion?"

Vonderberge turned to go. "No."

Knecht stopped him. "Heinrich," he said.

"What?"

Knecht looked past the Kommandant. He could see the sentries where they paced the walls, and the cannon in their redoubts, and the gangways to the underground tunnels that led to the big guns fortified into the mountainside. "Real or fantasy, you've learned a lot about the prisoner's technology."

"Enough to want to learn more."

"Tell me, Heinrich. Do you *want* to learn to make nuclear bombs?"

Vonderberge followed Knecht's gaze. A troubled look crossed his face and he bit his lower lip. "No, I do not. But the same force can produce electricity. And the medical science that produces the miracle drugs can tailor-make horrible plagues. The jets that fly bombs can just as easily fly people or food or trade goods." He sighed. "What can I say, Rudi. It is not the tool, but the tool-user who creates the problems. Nature keeps no secrets. If something can be done, someone will find a way to do it."

Knecht made no reply. He didn't know if a reply was even possible. Certainly none that Vonderberge would understand.

When Ranger O'Brien brought the news from the Nations, General Schneider was away from the fortress, inspecting the outposts on the forward slope. Knecht received O'Brien's report, ordered the man to take some rest, and decided the general should hear the news immediately. He telegraphed Outpost Three that he was coming and rode out.

The crest of Kittatinny Mountain and all the forward slope had been clear-cut the distance of a cannon shot. Beyond that was wilderness. Ridge and valley alternated into the distant north, dense with trees, before rising once more into the Pocono range, where Wyoming had her own fortress line. Legally, the border ran somewhere through the no-man's-land between, but the main armies were entrenched in more easily defended terrain.

Knecht reined in at the crest of the Mountain and looked back. The valley of the Lehigh was checkerboarded with broad farms. Farther away, he could discern the smoke plumes of cities at the canal and rail heads. There was a speck in the air, most likely an airship sailing south.

When he turned, the contrast with the land north of the Mountain was jarring. He must have gazed upon that vista thousands of times over the years. Now, for just an instant, it looked *wrong*. It was said to be fertile land. Certainly, enough blood had manured it. And some said there was coal beneath it. He imagined the land filled with farms, mills, and mines.

At that moment of *frisson* he knew, irrationally, that Kelly had been telling the truth all along. Somewhere the barbed wire was used only to keep the *milch* cows safe.

And the bombs and missiles? What if it were a rain of death from the other side of the world that we feared, and not a party of Mohawk bucks out to prove themselves to their elders? A slow explosion, Kelly had said. The inventions would come. Nature kept no secrets. The discoveries would be made and be given to the petty rulers of petty, quarreling states. Men with dreams of conquest, or revenge.

Knecht clucked to his horse and started downslope to the picket line. Give Konrad Schneider that, he thought. His only dream is survival, not conquest. Yet he is desperate; and desperate men do desperate things, not always wise things.

"Hah! Rudi!" General Schneider waved to him when he saw him coming. He was standing on the glacis of the outpost along with the Feldwebel and his men. The general's staff was as large as the platoon stationed there, so the area seemed ludicrously crowded. The general stood in their midst, a portly, barrel-chested man with a large curved pipe clenched firmly in his teeth. He pointed.

"Do you think the field of fire is clear enough and wide enough?"

Knecht tethered his horse and walked to where the general stood. He had never known Schneider to ask an idle question. He decided the real question was whether Vonderberge was reliable. He gave the cleared area careful scrutiny. Not so much as a blade of grass. No force large enough to take the outpost could approach unseen. "It seems adequate," he said.

"Hmph. High praise from you, Rudi." The general sucked on his pipe, staring downslope, imagining ranks of yankees and knickerbockers charging up. "It had better be. But you did not ride out here from Fox Gap only to answer an old man's foolish questions."

"No, General."

Schneider stared at him and the smile died on his face. He put his arm around Knecht's shoulder and led him off to the side. The others eyed them nervously. When scouts and

generals spoke in secret the result was often trouble.

"What is it?"

"Friedrich O Brien has returned from the Nations."

"And?"

"The League has voted six to two to join the alliance against us."

They paced together in silence. Then Schneider said, "So, who held out?"

"Huron and Wyandot."

The general nodded. He released Knecht's shoulder and walked off by himself. He turned and gave a hollow laugh. "Well, at least some of our money was well spent. In the old days, it would have been enough. League votes would have had to be unanimous. Do you think they will fight? The two holdouts, I mean."

"Do you think they will split the League, General, over Pennsylvania?"

"Hmph. No. You are right again. They will go with the majority. But, perhaps, the fighting on the west will be less what? Enthusiastic?"

"At least it is too late in the year for an offensive."

"Perhaps, Rudi. But the crops are in. If they think they can knock us out in a lightning war before the snows, they may try anyway. How long can they hold their alliance together? It is unnatural. Yankees and knicks and longhousers side by side? Pfah! It cannot last. No, they must strike while they have Virginia with them, as well. What do you think? A holding action along the Fortress Line while the Lees strike up the Susquehannah and Shenandoah?"

"Will Virginia bleed for New York's gain?"

Schneider nodded. "A two-front war, then." He rubbed his hands together briskly. "Well, our strategy is clear. We must stir up problems behind them. In New England or Carolina or Pontiac. And perhaps we have a few surprises of our own."

Knecht looked at him sharply. Schneider was smiling. It was a small smile, but it was a real one, not forced. "What are you talking about?"

Schneider pointed to the wires running from the outpost to the Fortress. "Suppose there were no wires to be cut or tapped. Suppose there were voices in the air, undetectable, sent from anywhere a man could carry an instrument. We would not need messengers or pigeons, either. Think how quickly we could learn of enemy formations and mobilize our own forces to meet them. The right force in the right time and place is worth regiments a mile away and a day late. Or airplanes, darting among the airships with machine guns and bombs. We could carry the fighting all the way to Wilkes Barre and Painted Post."

"Kelly."

"Ja." The general chuckled. "Vonderberge tells me of these gadgets, like radio. Crazy notions. But I wonder. What if it were true? Kelly's waking mind does not remember the details of the sort of, hmph, primitive inventions we could hope to copy. And from your report I suspect he would not help us willingly. Oh, he is friendly enough; but he does not like the military and would not help us prepare for war. Especially a war none of his concern. A

problem. So, I seize the moment." He clenched his fist and waved it.

"You pass along the information to Ochsenfuss and ask him to find the details by prying in his unconscious mind."

Schneider looked at him. "You knew?"

"I guessed."

"You never guess. You're offended."

"No."

"You are. But I had to leave you out. You would have cut to the truth too quickly. I knew you. If you found that Kelly was mad, well, no harm done; but I was speculating that he was just what he said he was. If that were the case, I could not allow you to prove it."

"Why not?"

"Ochsenfuss, that old plodder. He will not mesmerize except for medical reasons. If you had proven Kelly was, well, Kelly, our friend the Hexmajor would have bowed out and Kelly's secrets would have remained secret. No, I needed Ochsenfuss's skill at mesmerizing. I needed Vonder-berge's enthusiasm for technofiction, so he would know what questions to ask. And, for it to work, I needed Kelly's status to remain ambiguous."

"Then the Hexmajor does not know."

"No. He is our protective plumage. I read his reports and send them to a secret team of scientists that OKP has assembled at Franklin University. Only a few people at OKP know anything. Only I, and now you, know everything."

Knecht grunted. Ochsenfuss *did* know. At least he knew something. His remarks at the officers' club had made that clear.

"Vonderberge said we lack the tools to make the tools to make the things Kelly described."

"Then Vonderberge is shortsighted. Pfah! I am no fool. I don't ask for the sophisticated developments. Those are years ahead. Decades. But the original, basic inventions, those are different. As Kelly described it, they came about in a world much like our own. And, Rudi?"

"Ja, Herr General?"

"This morning I received word from Franklin. They have sent tele-graphic messages *without wires* between Germantown and Philadelphia. They used a special kind of crystal. The pulses travel through the air it-self." He grinned like a child with a new toy.

Knecht wondered how much difference such things would make in the coming war. There wasn't time to make enough of them and learn how to use them. He also remembered what Ochsenfuss had said in the officers' club. Something had to break. The question was what. Or who.

Knecht took a deep breath. "It's over, then. You've learned how to make radio messages. Ochsenfuss can stop treating him."

Schneider would not meet his eyes. "The mesmerization must continue. There are

other inventions. We need to know about airframes. The details are sketchy yet. And napalm. And..."

"Between Ochsenfuss and Vonderberge, Kelly's personality is being destroyed. He hardly remembers who he is, or which world is real."

"This is war. In war there are casualties. Even innocent ones."

"It is not Kelly's war."

"No. But it is yours."

Knecht's mouth set in a grim line. "*Ja*, Herr General."

"You make it look so easy," said Vonderberge.

"Shh," hissed Knecht. He twisted his probe once more and felt the bolt slide back. "These old-style locks are easy, and I've had much practice." He pulled the storeroom door open and they stepped inside.

"Schneider will know you did it. Who else has your skill with locks?" Knecht scowled. "Every scout and ranger in the corps. But, yes, Schneider will know it was me."

Vonderberge began searching the shelves. "Does that bother you?" Knecht shrugged. "I don't know. It should. The general has been...like a father to me."

"Here it is," said Vonderberge. He stepped back. Kelly's rucksack in his hands. He looked inside. "Yes, the belt controls are here also. I don't think anyone has touched it. Schneider has the only key."

"Do you suppose it still works?"

Vonderberge's hands clenched around the straps. "It must."

They crossed the parade ground to the brig. It was dark. Knecht felt that he should dart from cover to cover; but that was silly. They were officers and they belonged here. They took salutes from three passing soldiers. Everything was normal.

The night guard in the cell block shook his head sadly when he saw them coming. "In the middle of the night, sir?" he said to Vonderberge. "Hasn't that poor bastard spilled his guts yet? Who is he, anyway?"

"As you said, soldier," Vonderberge answered. "Some poor bastard."

While the guard unlocked the cell door, Vonderberge hefted the rucksack, getting a better grip. He stroked the canvas nervously. Knecht could see beads of perspiration on his forehead.

Well, he's risking his career, too, he thought.

"We will never have a better chance, Rudi," Vonderberge whispered. "Kelly was very clear this morning when I told him what we proposed to do. He had already calculated settings several days ago, using his new 'for-mula.' He only needed to update them. I arranged a diversion to keep Ochsenfuss away from him, so he has not been mesmerized in the mean-time. Tomorrow he may relapse into confusion once more."

"As you say," said Knecht shortly. He was not happy about this. For Knecht, his career was his life. He had been army since his teens. A scout, and a good one—perhaps the best. Now it was on the line. A scout observes and listens and pieces things together. He does not initiate action. How many times had he said that over the years? He had said it to Kelly. Why should he break his code now, for a man he hardly knew?

Knecht didn't know. He only knew that it would be worse to leave Kelly where he was. An obligation? Because he brought him here? Because of what they might learn from him?

Perhaps I could have argued Konrad into this, he thought. And perhaps not. And if not, there would have been a guard on that storeroom door, and restricted access to the prisoner, and so I have to do this by night and by stealth.

The guard came suddenly to attention. Knecht looked around and saw Ochsenfuss entering the corridor from the guardroom. Vonderberge, already stepping inside the cell, saw him, too. He grabbed Knecht's shoulder. "Talk to him. Keep him out until it's too late."

Knecht nodded and Vonderberge pulled the door shut. Knecht had a momentary glimpse of Kelly, rising from his cot fully dressed. Then the door closed and Ochsenfuss was at his side. The guard looked at them and pretended to be somewhere else. Knecht wondered what he would say to the Hexmajor that would keep him out of the cell.

"Up late, *Herr Doctor*," he said. *Clever, Rudi. Very clever.*

"Insomnia," was the reply. "A common malady, it seems. You might ask who is *not* up late, whiling away the hours in the guardhouse. Do you have a cigar?"

The request caught Knecht by surprise. Dumbly, he took out his pocket humidor. Ochsenfuss made a great show of selecting one of the cigars inside. Knecht took one also and offered one to the guard, who refused.

"Fire?" Ochsenfuss struck a match for Knecht, then lit his own. After a moment or two, he blew a perfect smoke ring. "I had an interesting experience today."

"Oh?" Knecht glanced at the guard, who decided this would be a good time to patrol the outside of the building.

"*Ja*. I had a message from Outpost 10. The farthest one. One of the men was behaving oddly. Confinement mania, perhaps. But when I arrived, no one knew about the message. Or, more precisely, no one *acknowledged* knowing about the message. Odd, don't you think?"

"A hoax." Dimly, through the door, Knecht could hear a low-pitched hum. The floor seemed to be vibrating, ever so slightly. He thought he could detect a faint whiff of ozone in the air. He studied the doctor's face, but saw no sign of awareness.

"Certainly a hoax. That was obvious. But to what purpose? Simply to laugh at the foolish doctor? Perhaps. But perhaps more. I could see but two possibilities, logically. The message was to make me do something or to prevent me from doing something."

Knecht nodded. "That does seem logical." The night air was cool, but he could feel the sweat running down his back, staining his shirt. The humming rose in pitch.

"Logic is a useful tool," Ochsenfuss agreed inanely. "As nearly as I could tell the only thing the message made me do was to ride down the Mountain and back up. That did not

seem to benefit anyone."

"Is there a point to this, *Herr Doctor*?" Knecht felt jumpy. Abruptly, the humming rose sharply in pitch and dropped in volume, sounding oddly like the whistle of a railroad train approaching and receding at the same time. Then it was gone. Knecht suppressed the urge to turn around. He swallowed a sigh of relief.

"What remains?" Ochsenfuss continued. "What was I prevented from doing? Why treating Kelly, of course. And who has been my opponent in the treatment? The Festungskommandant. So, since my return, I have been watching."

Knecht took the cigar from his mouth and stared. "You spied on me?"

Ochsenfuss laughed. A great bellow. He slapped Knecht's shoulder. "No, I pay you a high compliment. No one could watch you for long with-out you becoming aware of the fact. A sense shared by all scouts who sur-vive. No, I followed Vonderberge. When you met him at the storeroom, I retired. It was obvious what you intended to do."

Knecht flushed. "And you told no one?"

Ochsenfuss sucked on his cigar. "No. Should I have?" He paused and pointed the stub of his cigar at the cell door. "He's not coming out, you know."

"What? Who?"

"Your friend, Vonderberge. He's not coming out. He's gone."

Knecht turned and stared at the door. "You mean he took the equipment and left Kelly behind?"

"No, no. They left together. If they stayed close, if they hugged, they would both be inside the field."

"Guard!" bellowed Knecht. "Open this door!" The guard came pound-ing down the corridor. He unlocked the door, and he and Knecht crowded inside. The cell was empty. Knecht saw that Ochsenfuss had not bothered to look. The guard gave a cry of astonishment and ran to fetch the watch-sergeant. Knecht stepped out and looked at the doctor.

The doctor shrugged. "I told you he would reject reality if he could."

"Explain that!" Knecht pointed to the empty cell.

Ochsenfuss blew another smoke ring. "He ran from reality." With a sud-den motion, he kicked the cell door. It swung back and banged against the wall. "This is reality," he said harshly. "Vonderberge has fled it. How else can I say it?"

"Obviously, the other worlds are no less real. The evidence is there, now."

"What of it? It is the flight that matters, not the destination. What if the next world fails to please him? Will he reject that reality as well?"

A squad of soldiers came pelting from the guardroom. They pushed past Knecht and Ochsenfuss and crowded into the cell. Their sergeant followed at a more majestic pace.

"How long have you known," Knecht asked Ochsenfuss, "that the other worlds were real?"

Ochsenfuss shrugged. "Long enough." He laughed. "Poor, dull-witted Ochsenfuss! He cannot see a fact if it bit him on the nose." The Hexmajor's lips thinned. "Granted, I am no physical scientist, but what Kelly said went against everything I had ever read or heard. Later, I came to know I was wrong." Another shrug. "Well, we grow too soon old and too late smart. But I ask you, why did Vonderberge believe? He was correct from the beginning, but he believed before he had proof. He believed because he *wanted* to believe. And that, too, is madness."

"And Schneider?"

"Schneider never believed. He was making a bet. Just in case it was true. *He was playing games with my patient!*"

Knecht could see genuine anger now. The first real emotion he had ever seen in the Hexmajor. He saw the general for a moment through the doctor's eyes. It was a side of Konrad he did not care for.

They spoke in an island of calm. Around them soldiers were searching, looking for tunnels. Schneider would be coming soon, Knecht realized. Perhaps it was time to leave, to postpone the inevitable. He and the doctor walked to the front of the guardhouse but they went no farther than the wooden portico facing the parade ground. There was really no point in postponement.

Knecht leaned on the railing, looking out over the parade ground. A squad of soldiers marched past in the dusk: full kit, double-time. Their sergeant barked a cadence at them. Idly, Knecht wondered what infraction they had committed. Across the quadrangle, the Visiting Officers' Quarters were dark.

"So why, after you knew, did you continue to treat him?" He looked over his shoulder at the doctor.

Ochsenfuss waved his hands. The glowing tip of his cigar wove a complex pattern in the dark. "You read his journal. Do you really suppose he has found his way home this time? No, he goes deeper into the forest of time, hopelessly lost. And Vonderberge with him. Six worlds he had visited already and in what? In three of them, he was in danger. The next world may kill him."

"But..."

"Tchah! Isn't it obvious? He was driven to try. He had friends, family. His darling Rosa. Left behind forever. He could not bear the thought that he would never, ever see her again. How could he not try? How could he not fail? With me he had a chance. I saw it and I took it. If I could make him accept *this* world as the only reality, forget the other, then he might have adjusted. It was a daring thing to try."

Knecht looked back out at the parade ground. There had been a fourth possibility, after all. A refugee, but one slowly going mad. Lightning bugs flashed in the evening air. "It was daring," he agreed, "and it failed."

"Yes, it failed. His senses worked for me: everything Kelly saw and heard told him this world was real; but in the end there were too many memories. I could not tie them all off. Some would remain, buried under the false ones, disturbing him, surfacing in his dreams, eventually emerging as psychoses. I restored his memories, then. I could do no more to help him, so I made no effort to stop you."

Knecht's mind was a jumble. Every possible action was wrong. Whether Kelly had been the person he claimed to be, or a madman, Schneider had done the wrong thing. Ochsenfuss had been wrong to try and obliterate the man's true memories. As for himself, all he and Vonderberge had accomplished was to turn him out into a trackless jungle. *Oh, we all had our reasons. Schneider wanted defense. Ochsenfuss wanted to heal. Vonderberge wanted escape. And I...* Knecht wasn't sure what he had wanted.

"We could have kept him here, without your treatment," he told Ochsenfuss. "So the general could have learned more." Knecht was curious why the doctor had not done that.

As if on cue, the door of the VOQ burst open. Knecht could see Schneider, dressed in pants and undershirt, framed in its light. Schneider strode toward the guardhouse, his face white with rage and astonishment.

Ochsenfuss smiled. "Kelly would have lost what sanity he had left. If we had not given him the way home, we have at least given him hope. And..." He looked in Schneider's direction. "While I am a logical man, I, too, have feelings. Your general thought to make me the fool. So, I made a medical decision in my patient's best interest."

Knecht could not help smiling also. "Perhaps I can buy you a drink to-morrow, in the officers' club. If we are both still in the army by then." His cigar had gone out. He looked at it. "I wonder what world they are in now."

"We will never know," replied Ochsenfuss. "Even if they try to come back and tell us, this world is a twig in an infinite forest. They will never find us again. It will be bad for you, Rudi, if you cannot bear not knowing."

Knecht threw his cigar away. He was a scout. It would be bad for him, not knowing.

About "The Forest of Time"

I wrote "The Forest of Time" in airports. My quality-management consulting had me flying so much that year that I personally staved off the bankruptcy of several major air carriers. I also had a lot of otherwise unproductive time on my hands aboard planes and in hotel rooms. Stan Schmidt at *Analog* had been foolish enough to buy one story from me ["Slan Libh," November 1984]. Perhaps, he could be tricked into buying more. There wasn't all that much else to do in a motel room in Paducah, so I resurrected a yarn I had written in college. Very little besides the maps, some character names, and the basic idea of a hopelessly lost cross-time traveler survived the transition. "The Forest of Time" appeared in *Analog* (June 1987) and was reprinted in Gardner Dozois's *The Year's Best Science Fiction (5th Annual)*. It was my fourth published story, and it made the Hugo ballot.

I had wanted to write a "parallel Pennsylvania" story ever since reading H. Beam Piper's "Gunpowder God" in high school. Growing up in Easton, Pennsylvania, the historical themes were all Revolutionary, so it was only natural that when I thought alternate history, I thought of that era. Sometimes we forget how revolutionary our Revolution was; in many ways, more so than any that followed. How many others have slipped from republicanism to bonapartism and wound up with a Napoleon, a Lenin, or a Khomeini? A *written* constitution, one in which the *people* told the *government* what it was allowed to do? Alone among constitutional states, ours does not *grant* rights to the people. Read the Bill of Rights,

especially Amendments Nine and Ten. People *possess* rights under the Natural Law, and the government is forbidden to interfere with them. If you think that that is only a semantic quibble, think again: The "right to privacy" is mentioned nowhere in the Constitution.

But what if this Union had never happened and North America had filled with squabbling petty states—"as many Nations in North America as there are in Europe," as John Adams once feared? The innumerable tariff and custom barriers would strangle trade and commerce, and with it, the spread of new ideas. Until the Constitution eliminated tariff barriers among the states, little England was the *largest* free trade zone in the world. So I imagined a pre-World War I milieu, full of what Winston Churchill called "pumpnickel principalities."

Speaking of pumpnickel, could Pennsylvania really have become German-speaking? It is home today to Pennsylvanisch, a Swabian dialect, but in Revolutionary times fully half the colony spoke German. Towns in the Lehigh Valley bear names like Schenkweilersville, and hills are called Swoveberg and Hexenkopf. As late as my grandfather's time, German newspapers in Easton still outnumbered English; and he, himself, bore the unlikely sobriquet of "Dutch" Flynn because of his accent. (His mother was an Ochenfuss.) In the 1930s, German was still a required course at my mother's elementary school, and our parish church had native-born German pastors until after I went off to college. I was raised on "German Hill," where you could toss a rock and hit five Deutchers before you hit an Italian or a Gael. Decouple the Commonwealth from the other English-speaking colonies, throw in some anti-Yankee enmity, and what do *you* think might have happened?

But all this is background. The story is not *about* an alternate Pennsylvania. That is only the setting. My one halfway original notion was that the departure and arrival of a cross-time traveler were themselves events which spawned new parallel worlds, and which therefore changed the "para-time" distances between them. One little slip in the quantum foam and—hey, presto!—you would be lost amid an infinity of worlds. The story was born of the single image of a man unable to find his way home and slowly losing hope and sanity because of it. Like the blind men and the elephant, Vonderberge and the Hexmajor, General Schneider and Rudi Knecht, each found something different in Kelly. Dour, dogged, dutiful Rudi re-mains one of my favorite characters.

2007.05.20/MNQ

19,600 words