



The ancient one listened quietly while the German boasted with clenched fist

A Most

THERE exists no problem that logic cannot solve! was the German's boast—until he entered this Cretan cave

SCHLAGEL stumbled up the beach, spitting out curses and cold salt water with every step. He stumbled again, lost his balance, and fell face down in the rough sand, gasping for breath. Schlagel knew that he must stay there in the sand until his strength grew enough so that he could

divest himself of his rubber life jacket and make his way back to headquarters with the information about the British convoy.

"Fool, fool, fool!" Schlagel's inner mind seemed to be reviling him for the overconfidence he had shown in his battle with the Spitfire.



Ingenious Paradox

By GEORGE TASHMAN

"If you had only turned and run, instead of showing fight with that *verdammt* British swine! If you had only stopped to think that the information was of much more use to the Fuehrer than one more dead Britisher! But no, you fool, you had to go after the glory, after the medals! Ah well, there is still

plenty of time."

Schlagel turned over, groaning from exhaustion, and struggled to a sitting position. He started to undo the fasteners on his life jacket, but the work was slow, tedious. His fingers seemed to have turned to thumbs. Finally, having mastered the garment, he

shrugged his shoulders out of the jacket, and rose.

With nervous, jerky motions, Schlagel shook the sand out of his hair, rubbed his face briskly and looked about him. He had no idea of where he was except for the fact that he was probably on one of the smaller islands in the Aegean Sea.

His mind seemed to be talking to him again. "Well, fool, don't just stand there! Did the Fuehrer stand thus at Munich in 1923? Action! That is the watchword. Find one of these Greek slaves and make him take you to an outpost—to a radio station. That information must get through! If the convoy reaches Alexandria, the British will have the supplies to start their counter-attack against Rommel. Move, Schlagel, move!"

Schlagel started up the beach. After all, if this was an island, it must have boats. And if it had boats, it must have harbors. And if it had harbors, it must have towns. And if it had towns, it must have people. And wherever there were these Greek slaves, there were also masters. And who were the masters but the German Army?

Oh yes, thought Schlagel, it was all very logical.

Logic was one of the things which *Leutnant* Schlagel had learned well at the University. Logic was what ran the earth, the universe. Logic was what the German Armies used—logic and a little intuition, of course.

And it was logic that told *Leutnant* Schlagel he must not stand around musing, but that he must move, move, move. Schlagel started walking up the beach at long, easy lope. Logic, that was it, thought Schlagel. How else could he move so easily, so rapidly, were it not for his fine body, his excellent physique? And was it not logical thinking on the part of the Fuehrer

which had given him these manly attributes? How could one hope to be a member of the *Uebermenschen*, the super race, if one did not have a fine body? Those days in the gymnasium were long days, and hard days, but now they were beginning to pay dividends.

Suddenly Schlagel drew up quickly. He sniffed the air, much as a pointer sniffs when he scents the prey. A smile broke over the *Leutnant's* face. Smoke! Where there was smoke, there must be fire. And where there was fire, there must be man. A perfectly logical deduction.

SLOWLY now, Schlagel moved up the beach. He must sneak up on these fools, surprise them. After all, it is the element of surprise which wins many battles.

"Now," said Schlagel's inner mind, "just around that next sand dune, and I will be well on my way."

Schlagel dropped to a crouch, and slowly, oh, so slowly and so silently, crept around the dune. Chagrin and dismay covered his Nordic countenance. No one was there! But the odor of the smoke still filled his nostrils! There must be someone here! Schlagel's eyes rapidly covered the beach ahead of him. Rapidly, but logically, looking as far as they could, peering into every depression in the sand. Then his eyes turned to the cliffs to the right. More slowly now, eyes narrowed almost to slits, squinting, he covered every square inch of those cliffs until—ah! there it was. A small crack in those granite walls!

Again Schlagel crouched, crept the three or four hundred yards to the crevasse, and peered in. For a few seconds which seemed as so many eternities, he could see nothing. Then, as his eyes became accustomed to the gloom, his vision cut through the dark-

ness and the picture cleared.

At first he could see only smoke, haze and then, as a great gust of wind blew up the beach and into the opening, the smoke parted. Off in the distance, which seemed miles long, Schlagel could see two metal braziers, mounted on tripods, giving off heat and smoke. Mounted on the wall, perhaps six feet off the ground, two torches flickered. Under the torches, and between the braziers, sat what Schlagel had been seeking. A man!

Schlagel looked again, and decided that the distance from the mouth of the cave to the back wall could be no more than one hundred yards. Logically, Schlagel thought that he could cover the hundred yards in slightly under twelve seconds. And even more logically, Schlagel knew that the element of surprise was his, even if he ran into the cave, shouting. One hundred yards is such a short distance.

Drawing himself erect the *Leutnant* thought the situation over and decided that he could best achieve his goal by a dignified entrance, as was befitting a master encountering a slave.

Leutnant Ernst Schlagel squared his shoulders, drew a deep breath, looked straight ahead, and walked into the cave. He advanced slowly, looking to the right and to the left, shivering slightly at the cold, damp walls which were covered with green slime. Before he realized it, he stood almost directly before the man.

LOOKING down, Schlagel involuntarily drew back a step. Why, this man was old! So old, that it was almost impossible even to estimate his age. The old man had a long white beard, and long white hair which hung down almost to his waist. He sat in an old, old chair, models of which the *Leutnant* had seen in the museums

in Athens. In his lap he held an old, old book—a book which, from the looks of it, must have been one hundred—five hundred—who could tell how old it was?

“You!” ordered Schlagel. “Take me to the nearest German Army Post!”

The old man did not seem to hear him.

“You! Greek swine! Answer me! Take your damned nose out of that book and take me to the nearest German Army post!” Angrily the Nazi’s hand went out, rested momentarily on the old man’s shoulder, and then shook him.

The old man looked up quietly, and just as quietly he closed his book. He looked his visitor over from head to toe, and then he spoke.

“Who are you, my son, and what do you want?”

Red with rage Schlagel bellowed: “I am one of your conquerors. I am *Leutnant* Ernst Schlagel, of the Luftwaffe. I want to be led to the nearest German Army post!”

“Conqueror?” mused the old man. “Luftwaffe?” Bewilderment covered his wrinkled features. “I know of no conquest or Luftwaffe. I am just an old man who has been seated here for a long, long time meditating on the wonders of life. I just sit here and work with logic, seeking to uncover the mysteries.”

“Logic?” screamed Schlagel. “Very well, then, I will give it to you in a logical sequence. We have overrun Europe. We have devastated the civilized world. We have slain thousands of your countrymen. We have enslaved millions of your decadent Greeks. We have the power, and we are, therefore, logically your masters. Following that thought through, I am your master.”

The old man pondered for a moment.

"True, my son. If you speak the truth, I am indeed your slave. But I cannot take you to any place outside this cave, because it has been so long since I myself have left its confines. However, if you will help me in the solution to the problem in logic over which I am now struggling, perhaps I may be able to help you."

IT WAS now Schlagel's turn to ponder. "The old man is obviously mad. One must humor the mad in order to achieve anything with them. I will humor him, and then he will help me."

To the old man: "Very well, old one. What is your problem? I have been well trained in logic, and will, no doubt, be able to give you your solution rapidly."

The old man spoke: "My son, we all know what motion is. We see motion all around us, we move ourselves. Yet mathematically, what is motion? If Achilles seeks to overtake a tortoise, it seems to us that he does so with ease? Yet does he? Before Achilles can overtake the tortoise, he must first cover half the distance to the tortoise, then he must cover half of that remaining half, then half of that half, then half of that half, ad infinitum. Now then, my problem in logic is this: How can Achilles cover the distance between himself and the tortoise?"

Schlagel laughed, shrilly. "Ancient one, the answer is simple. You have been in your cave too long. Unless my memory fails me, a man named Zeno propounded that paradox. Yes, in the narrow conceptions of Zeno's day, the paradox had no solution, but science has gone a long ways since Zeno.

"The theory of time-space continuum, which has opened the confines of the infinite and the continuous has solved that problem."

The old man shook his head. "No, my son. I have thought of the continuum. I have spent many years trying to reconcile myself to that theory. But, just as with my problem, it is only theory."

Schlagel shrugged his shoulders. "That is neither here nor there. I have solved your problem to my satisfaction, and now you must lead me to the nearest village. I have information which is vital to the well-being of my Fatherland. Up, old one, and lead me."

The old man again shook his head. "I cannot lead you, my son. But you need no leadership. As I remember it, the nearest town is but a short walk up the beach. You might be able to reach it in a short time."

"You are mad," Schlagel screamed, spitting in his face. "I will not argue with you now, but I will return to treat you as you should be treated, and you may bank on that!"

"You will return," said the old man, "If you can first leave."

SSCHLAGEL spat again, and, as he turned he noticed the eager look on the old man's face. Was it eagerness—or was it madness? Oh well, what matter, thought Schlagel. He finished his turn, and started walking briskly toward the entrance of the cave. Suddenly he stopped. Why, he had been walking for what must have been all of two minutes, and he was nowhere near the entrance of the cave. He turned and looked back at the old man who was watching him, watching him, with a faint, sad smile on his face.

"Smile, you swine," screamed Schlagel, "I'll give you something to smile about!" He started toward the old man, walked for what seemed a long time, and stopped. He was nowhere near the old man!

Schlagel turned, and ran for the entrance. He never reached it. Bewildered, he turned and again ran for the old man, who sat there, still smiling. He never reached the old man. Again he turned—the entrance—and again—the old man. The sweat stood out on Schlagel's forehead as he ran back and forth, never reaching his goal.

Finally he sank to the ground, sobbing with exhaustion. It was then he noticed the bones—human bones and

animal bones, scattered near the dripping walls of the cave. Struggling to hold back the madness he felt creeping over him, Schlagel turned toward the old man and shrieked: "Old one, who are you?"

The smile vanished from the old man's face, and sadly he spoke one word. "Zeno."

Somehow Schlagel knew that he would never reach the entrance.

THE END

TOMORROW'S WORLD

A LONG with the death and destruction that every war brings, there is progress. Science and industry harnessed for conflict far outdistance the negligible cultural and social achievements of war-torn years. Mechanically we will be decades ahead of where we were but a few short years ago. What tomorrow's world will be like depends on how far off tomorrow lies, that is, on the duration of the war. Every month that the war continues pushes scientific research to new heights of chemical creativeness. Industry has expanded far beyond the dreams of pre-war speculators.

In almost every aspect of our physical lives, these new changes will be felt. Luxuries of the pre-war world will be easily within reach of everyone, and products which were necessities—electrical appliances, furniture, automobiles, etc.—will be better adapted to their purposes, more convenient, more economical and serviceable.

Tomorrow's automobile, for example, will be so cheap that the number of cars on the road will jump to 50,000,000—twice the amount in use during pre-war days. Due to the discovery and development of heretofore unknown or undeveloped substances, the postwar car will be more spacious, and more comfortable. Its engine will be much more powerful. Through a redesigning of the engine in new materials, weight will be conserved. Every new automobile engine will be equipped with a supercharger, and it will be built to use fuel of 100-octane and higher. The modern airplane engine demonstrates some of the possibilities. It weighs less than one-fifth as much per horsepower as the 1942 model automobile engine, and it develops twice as much power per cubic inch of displacement.

We can easily see what tremendous gains have already been made by comparing the speedy development of only one commodity—gasoline. In 1939 the best aviation fuel was 87-octane. Before Pearl Harbor that same motor was serviced with 100 octane gasoline. An American designer recent-

ly built an aircraft engine of 100 horsepower, weighing only 100 pounds. These gains will be utilized in the manufacture of automobiles. The private car on the highway will have to compete with the private plane in the sky, and the postwar citizen will benefit from this competition whether he rides on the highway or in the sky, or both.

The principal wartime developments, other than new fuels which influence the design, production and cost of tomorrow's automobile are synthetic rubbers, new plastics, light metals, new alloys and new methods of welding, molding and combining metals, plastics, plywood and other materials. Whenever industry resumes production of automobiles it can start at scratch. Designers will not be bound by the traditions and limitations of old machine tools. The methods born of the speed-up of war production, plus the new materials and new uses of materials developed under the pressure of its needs and shortages, will be available to the automobile engineer to use as he wills. Lessons learned in the design, production, and use of the army jeep, with its powerful traction, no less than those acquired in the design, production and use of the tank, airplane and submarine chaser, will be available to automotive engineers and manufacturers—and to all engineers and manufacturers.

The new materials are for the most part chemical contributions. Even the plywood—such as is used to make the highly efficient Mosquito bombing planes, gliders, and other aircraft—owes a debt to the chemist. For it would not be possible to produce these workable, adaptable, and durable sections of wood to current standards of quality without the plastics and other synthetic materials used as binders. The new metals are right out of the chemist's crucibles. The rate at which they are pouring forth carries its implications of what tomorrow will be—not only the automobile of tomorrow, but tomorrow's railway, tomorrow's aircraft, tomorrow's oceanliner, even tomorrow's house equipment and garden tools.—*Henry S. Borden.*