

THE MATHEMATICAL KID

by Ross Rocklynne

I WAS walking fast down the quarter-beam tunnel toward my watch on the skipper's bridge, shrugging on my first mate's coat, when, "Psst!" he whispered, beckoning me from under the companionway.

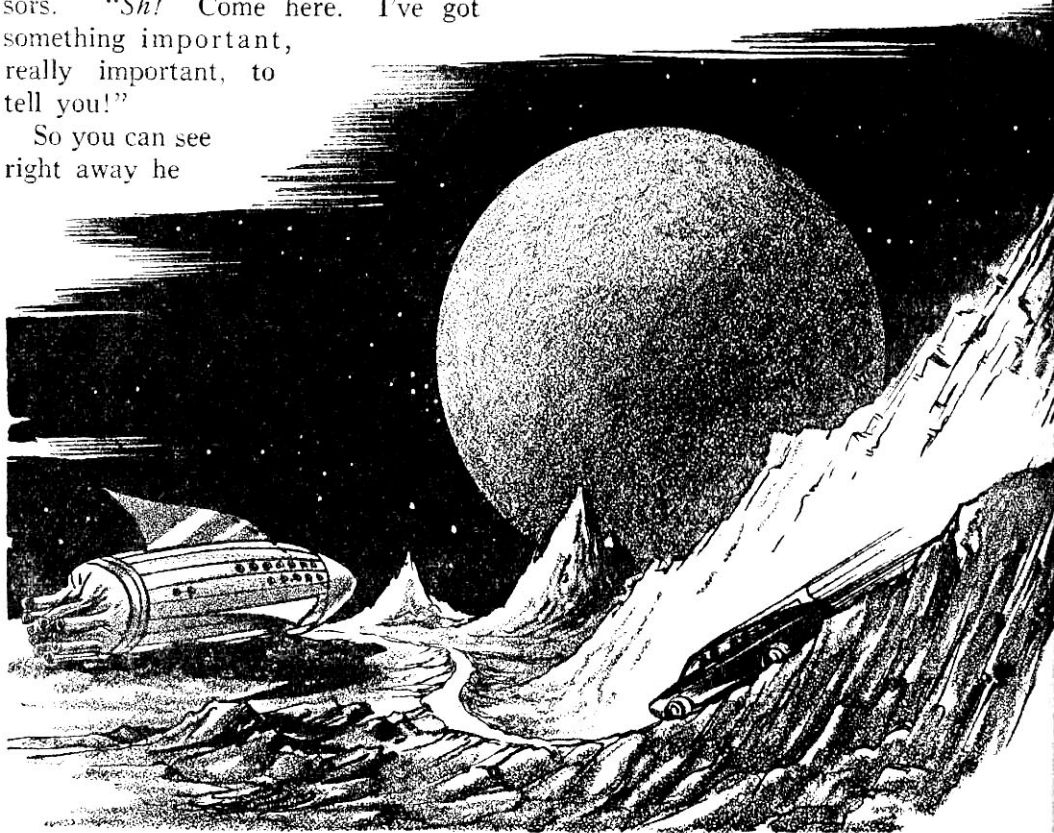
I stopped, pivoted my head. It was the twerp. I said, staring,

"Well, what the hell do you think you—

"Sh!" He waved his arms like scissors. "Sh! Come here. I've got something important, really important, to tell you!"

So you can see right away he

"You're heading for a crack-up!" warned the kid. He said it so often he succeeded in becoming a nuisance. But then...





Behind the cars an avalanche roared down, bent on their destruction.

was a twerp—our new cabin boy. It was emergency that made me and Old Scratch—he's the skipper—take him on. Yesterday, just before we hit heaven, he had snuck up the gangway and bearded Old Scratch on the bridge.

Kind of a funny kid, built like an asteroid—hard and rocky, yellow hair sticking out of his head like straw from a scarecrow, eyes glowing like blue neon

signs advertising the presence of his turned-up, butt-end-of-a-peanut nose. It was funny, darned funny, that he had showed up just when our regular cabin boy was missing and we were getting ready to shove off.

So we had to hire him. Then Old Scratch and I shooed him off the bridge, and we went on checking and rechecking the orbit figures the Corporation

had computed for us.

And now here was the little werp acting mysterious, as if he had a conspiracy on tap.

"All right," I growled, "spill it!"

"Listen to me!" he hissed, pulling my head down to his with a half-Nelson. "Nobody else will. I tried to tell the captain, but he flew off the handle. Do you know why I took this job?"

I said, sarcastic, "Sure. You was working your way through—"

His neon eyes snapped.

"No, no!" His police siren voice sank to a hoarse whisper. "That isn't it! I took the job because I wanted to save the *Aphrodite* from cracking up! Yes, I did, actually and literally!"

"Hey," I yelped, drawing away, "are you bats? Here we are, only three units out from the mother planet, and you're wobbly already!"

He grabbed my arm excitedly. "You're traveling the EPlx344 orbit, ain't you, Sandy? Well, that's the wrong course. I'm telling you for your own good, and you better switch over to another one quick! The *Aphrodite* is due for a crack-up eight days, seven hours, and forty-three minutes plus or minus from this very second!"

"Stow it, fellow!" I said real sharp. Then I spoke kindly, as I turned away.

"Go to your bunk and climb in, and I'll make your apologies to the skipper. Now get along, and wait until you know something about celestial mechanics before you go letting your one-horsepower brain do a hundred-horsepower job.

"Remember, you're not any Georgie Periwinkle." And I left him with that, though I did feel a little bit guilty, because his face fell a mile. But it was a laugh, him trying to tell *us* we were following a collision course.

THE next day, I left the bridge for a couple minutes, and went down the

engine room to see what in Hades was causing the sour note in the Wittenberg* howl—the chief engineer told me that there were air bubbles in the lead cable. When I came back up on the bridge, the kid ran out.

He looked at me accusingly, and pointed a stubby forefinger at me and bleated.

"He wouldn't listen to me, and neither would you! You're going to be sorry!"

"Listen, Kid," I said patiently. "I think we've had just about enough of this stuff. I warn you, quit bothering us, or I'll warm the seat of your pants so hot you'll never forget it!"

"What ails that kid?" snarled Old Scratch, his red, puffed-up beacon of a nose winking. He slammed his charts down on the table and glared at me as if I was a source of misery.

"I ought to fire you, damned if I shouldn't, for letting me hire him in the first place!"

"Say," I yelped, "you mean to say I hired him? Why, you old—"

He settled down. "Hold your temper, you old space hound," he snapped. "Maybe we have been up and down around the sun all our lives together, but that don't give you no extra privileges, see?"

"Yes, sir," I simpered.

"Now, Mr. Flabberty!" he growled. "Who's putting crazy ideas in the kid's head? If it's *you*—"

*Wittenbergs are the motors invented by Silas B. Wittenberg, late in the century, which supplanted the dangerous rocket drive by direct explosion. In this type motor, the possibilities of control are much extended, and the danger of explosion of the entire fuel supply is eliminated. Lead cables conduct the mixed gases to the outer firing chambers, and prevent static electricity sparks which are quite a problem around metal parts in space. However, a weakness still exists, in the air bubbles which frequently obstruct the cables and cause uneven fuel mixture. This results in a howling noise.—Ed.

"Aw, be yourself, Cap'n. He's got a touch of the wobblies, that's all."

"See atmospheric then, and have his air regulated. I ain't going to have no wild kid gumming up this run. We got a load of ten-thousand-dollar, airtight automobiles to get to Pluto in the next sixty days, and whadaya think's gonna happen if we don't get them there in time, huh? The Corporation'll give us the bum's rush, that's what!"

"He been bothering you that much?" I demanded, incredulous.

"Damned right he has! Beggin' me with tears in his eyes to change our orbit. Beggin' me if I won't do that, to cut our acceleration down to half a G, for three days at least."

I gasped, "What for?"

He said aggrievedly, "How should I know? He's enough to give anyone the meenies, that's what. I'll begin to believe our course is all wrong myself. Keep him outa here—he worries me."

The skipper shifted on his big feet uncomfortably, cocked an impatient eye at me.

"Recheck our course," he growled. "And then check it again. Go on, you, get going! And when you're finished, put that crazy kid in the brig!"

So I wearily checked and rechecked, and checked again, and I began to think how nice it'd be to step on the kid's face.

I made a mathematical sweep through 10° of the ecliptic plane, and just to make sure went 20° above and below, using the *Ephemeris* and a slide-rule to calculate possible *puncti*—and there wasn't, and would never be, even a rock in our trajectory; not unless it was above 20° , coming in at a 90° angle and at an impossible speed—and we all knew there wasn't anything like that.

So we had clear sailing. The ether was clean. We could plow right through. Hadn't I just calculated it? Sure.

So I knew the kid was wobbly in the bobbly, and it didn't hurt my conscience a bit when I cornered him in the galley and stuck him in solitary. We left him there—two and a half days. Yes, you guessed it—at the end of that time, all hell broke loose!

FIVE days out; and following the EPlx344 trajectory, the Wittenbergs went dead, and the *Aphrodite* coasted. We were on schedule, we were doing a neat hundred-point-oh-three miles per second, and we forgot about the kid.

Then—right in the middle of my snore-watch—I was jolted out of my dreams by Old Scratch's voice screaming from the general audio.

"Attention all!" he roared. "Attention all! Rock ahead! Wittenbergs! *Wittenbergs!* Get them Wittenbergs howling! Lane! Two gravities fore!"

I bounced out of bed, pulled my pants on and went sailing for the bridge. The chief engineer came charging down the corridor in his nightshirt.

"Two gravities fore!" he was gasping. "Jerusalem H. Slim!"

Old Scratch was still blaring into the general audio, when I came in.

"Two gravities fore! Larramie, lay off the pilot blasts—you'll send us through the bulkheads, at this speed! Telescope! Give me the dope on that again, and if you've made a mistake, I'll make a personal autopsy on your gizzard to see what brand you're using!"

" 89° to the ecliptic," the telescope man's frightened voice said. "Almost perpendicular. There ain't nothin' like that! 14—16—20—50—100—150—160—Great God," he yelled, "the tape reads 163 per. I just don't believe—"

"Shut up!" Old Scratch snarled. "Believe your machines! Two and a half gravities fore!" he roared.

And the Wittenbergs began to whine,

and crescendoed upward until a hell of awful sound shook the air. I had to stand at a slant. As I walked toward the console, I felt just like I was walking up a forty-five degree hill, only worse.

"Three gravities fore!" Old Scratch snarled.

"We can't take that!" I panted.

"I'm gonna take it, and so'll everybody else. Whip it up—three gravities!"

Chief Engineer Lane began to whip it; and I began to weigh 540 pounds.

"What about the kid?" I whispered.

"To hell with the kid!" he yipped. Three gravities were straining his 200—600 now—pounds back against his braced chair.

He yelled out, "Four gravities fore!" and that was the end of me. Old Scratch tests out at five gravities, I can take four and a half most of the time. But this was one of my off days. I was forced back against the wall, and saw something big and gray rushing at us in the view-screens.

I couldn't breathe. If that wall hadn't been there, I'd have gone tumbling the whole length of the ship. When Old Scratch added another fraction of a G, I began to give way inside. Everything blurred.

Suddenly the ship swung. It must have, because I fell clear across the room, bounced soggily into another wall. The Wittenberg howl tore at my eardrums. I felt a huge wave of sound and pure vibration surge through the ship. And then *bang!* I was gone—just like throwing a knife switch.

I WOKE up, and felt light as a feather. I opened my eyes. I moved an arm, pivoted my neck, saw a row of beds filled with patients. I groaned. Then I began to get heavier and heavier, as the gravity perspective

came back; and soon I knew that something like maybe only one, or one and a half gravities was sitting on me.

"Feeling better?" Dr. Ran Tabor came across the room, grinning all over his drunken face. He was our ship doctor, sort of a renegade from the profession.

Somehow I asked about the kid first.

"Him? Up and around last two hours. Some kid, him. Got bones like rubber bands. But you're brittle from the fuzz on top of your head down to the nail on your big toe. You got two busted ribs."

"Did we—did we crash?"

His brows came up. "Ha-ha! Sure, we crashed. Hard. Ha-ha! Aft section stove in—hospital full—main jets wrecked—Do you blame me for gettin' drunk?" He scowled.

I sank back wearily. "Send me Old Scratch, if he can make it."

Tabor scowled. "Nothin' could hurt that old buzzard."

Old Scratch came charging in after awhile, his eyes stormy. He all but shook his fist under my face.

"You!" he snarled. "A big, strong man like you foldin' up under four and a half gravities, and just when I needed you to—"

I yelped indignantly, "Why, you old—"

"Shut up!" Then he softened. "You know what happened? We tried to swerve at the last minute—the pilot blasts. Didn't work. They just twisted us around on our center of gravity, and the ship bounced her stern against the planet, stove in the supply hold, and tore up the main jets into scrap metal.

"So now we're caught here, see? There ain't any way of lifting her. This is a one and a half gravity planet."

He gnawed at his unshaved lip; he glared at me as if he thought I ought

to be the angel of deliverance.

"We should be able to lift her some way," I began.

"With the forward jets? Don't be stupid. The firing area ain't enough to lift us from a one-gravity planet, let alone a one and a half. Well, you lay there, and figure something out, and get those ribs healed up, sissy!" Then he went charging out of the hospital.

Couple hours later, the kid came in, his eyes glowing with excitement. He came right up to me. Maybe he thought I was his friend even if I did treat him rough.

"I think I've found something," he said excitedly. "It's wonderful. It really is. But first I have to test it."

"Test what?" I scowled.

"Test the planet," he said in surprise, just as if he was talking about dropping something in a retort and boiling it over a Bunsen burner.

HE got enthusiastic again. "You see, the main thing that's bothering the captain is that this is a one and a half gravity planet, and the ship is so bunged up it can't draw away from anything more than half of that—that's what Old Scratch said.

"So the thing to do," he went on, impressively, "is to decrease the amount of gravity pulling on the ship!"

And he gave me a "see how simple it is!" look.

I groaned, and almost gave up the ghost.

"Who told you about this planet," I said weakly, "and how big is it?"

"Nobody told me about it, and it's three thousand miles in diameter!" Then he stepped back and his neon eyes lost their enthusiasm, and flared with anger.

"You're like Old Scratch and everybody else!" he bleated ragingly. "I told you days ago the ship was going

to crack up, and now when it does, you think that somebody else told *me!* I computed it myself! I saw your orbit figures in the *Astronomical Section of the Philadelphia Herald*, and I had just discovered this planet, and I saw right away you were going to crack up.

"I'll fix *you* guys!" he cried. "After this, when I find something, I won't say a word. No, I won't. I'll let you figure it out yourself—*pickle-puss!*"

And then he turned away and marched fuming out of the room. Then for the first time I began to wonder if we weren't misjudging the kid and treating him too harsh. But I forgot all that by what happened next.

* * *

Two days later, the sawbones braced me with a couple yards of adhesive and let me get up. I dressed, feeling wobbly, what with one and a half gravities on me, made my way to my office in the ship, made out a requisition for a pressure suit, and then looked up the maintenance man. He measured me with one eye while he picked a pressure suit off the rack with the other.

The tender let me out the airlock into the middle of a big, smooth, dark plain ringed with low hills about six miles off, I guessed. The stars in the black sky were cold, fixed points of lights, so I knew there wasn't any atmosphere.

At the stove-in stern of the *Aphrodite*, a half dozen of the boiler boys were at work with oxy-acetylene torches. They were bungling the job, and Old Scratch knew it. But he kept them at it, trying to weld those shapeless masses back into position again.

"Oh, so you're up after takin' it easy two days," he snarled. He glared, but beneath the glare he was a confused, helpless old space hound, wondering how in the devil he was going to get a hundred and ten airtight automobiles to

Pluto in the time called for by contract.

"If you've thought of anything, Mr. Flabberty," he growled, sarcastic, "I wish you'd spill it, instead of keeping us in such delightful suspense. How do we get away from this one and a half gravity planet?"

"Easy," I told him, grinning all over my face. "You decrease the gravity to, say, three-fourths of a—"

His face began to screw up, and he took a step toward me.

"That's just what the kid said!" he growled, with murder in his eyes.

I BACKED up. "Hey, wait a minute! Don't blame me if the kid said it," I protested. "And besides, since he did predict the crack-up, he might be right about this, too!"

"My dear Mr. Flabberty! Of course he's right. All we have to do is decrease the gravity. But maybe the planet won't lay down and wave its hind legs in the air like the kid thinks!" he thundered.

"And as for the kid predicting the crack-up, I got my own ideas about *that!* Somehow he found out that the Corporation had deliberately plotted us a bad course. And for why? Why, so they could collect insurance on the old tub, that's why. As soon as we get outa this mess I'm gonna collar that kid and find out just where he got that information, so help me, I am!"

And looking at him, I suddenly began to feel sorry again for the kid. He was just plain poison to Old Scratch.

I looked around. Few miles away, just like we were in the center of a big crater, were a ring of low hills; and beyond that the land stretched away into a clear-cut horizon. I turned around and around, looking for the kid, but I didn't see him.

That was funny. He hadn't been in the ship either. Maybe he'd gone for a

walk somewhere. Maybe he'd got lost.

"Good riddance!" said Old Scratch disgruntledly. "That'll be one less passenger we have to carry along."

* * *

BUT five or six hours later, when we are all eating in the mess hall, the skipper went into a rage, pounding his fists together.

"It ain't enough that we can't lift ourselves," he panted wildly. "It ain't enough that we can't repair the main jets. Now we have to organize a search party, looking for a damned half-pint Jonah!"

But we did do just that, four groups of us starting out under the cold stars in four different directions. We got about two hundred yards away from the ship when Wilkes, our electrician, said in awe.

"Here comes that there moon."

The rest of them had seen that moon, but I hadn't, though I'd heard about it. I gawked. It came thundering over the horizon, like six white horses around the mountain. It was small at first. It got visibly bigger as we traveled along. It came faster, while I almost broke my neck watching the crazy thing. It swooped at us, getting bigger, coming faster.

At the end of an hour it was over our heads, five times as big as when we first saw it, and going like Mercury in a planetarium. It couldn't have been more than fifteen, maybe twenty thousand miles away. Then it began to go toward the other horizon, getting smaller, farther away, decelerating.

At the end of two hours, when we reached the foot of the hills, it had completely gone from horizon to horizon, accelerating, growing in diameter, decelerating, shrinking as it set.

"Wow!" somebody breathed. "Crazy moon!"

Old Scratch, still itching to get his

hands on the kid, said, "T'hell with it! It's just got a highly eccentric orbit."

But, of course, none of us knew why.

WE started up the hill. The ground was rocky with strangely smooth boulders, as if they'd rolled a long ways. There was sand, too, and small pebbles. We topped the hill, the four of us, and stood looking out over the plain.

Suddenly we saw something, a little black dot, rolling along toward us down there on the plain.

Wilkes gasped unbelievably, "It's an automobile!"

I looked at Old Scratch and saw his face getting redder and redder behind the helmet of his pressure suit. His lips mumbled something. After that we were all silent, waiting while that airtight, torpedo-shaped automobile, made for traveling in rough country over almost any gravity, came nearer and nearer. It started up the hill and stopped about twenty yards from us, with the kid at the wheel.

We stood there in grim silence. The door opened. The kid got out, took one look at our faces, and then scrambled back in. Through his radio headset he panted.

"Don't you come near to me! Don't you touch me. Because if you do, I'll tell my friend the President of the United States. I had to steal the automobile from the hold—I had to test the planet!"

We were looking at the tires of the automobiles. Ripped to shreds. We were looking at the paint job. Dented, scratched, a mess. We started toward the automobile.

But the kid stepped on the starter, swished forward, detoured around us at the last second, and then stopped about forty yards away.

"I promise to ride you back to the ship," he panted excitedly, "if you

promise not to get rough with me. Anyway, you *can't* get rough with me!" he pleaded. "I've found a good way to decrease the gravity!"

"We promise not to get rough with you," said Old Scratch, in an 'it gifs candy und ice cream' voice. And so help me, we didn't—then! When we got back to the ship, Old Scratch and I waited around until the kid got his pressure suit off, and had himself exposed. Then we both leaped at him.

"Me first!" said Old Scratch, holding up a hand. And he went at it, and laid it on so thick I didn't have the heart to add any more to what he deserved. We sent him to solitary for two days.

We found later that the car was all out of line. The kid must have put it through some rough punishment, because those cars are built to withstand a lot. Not that it was going to hurt our contract—we only had to deliver a hundred cars. We had ten extra, just in case; it was just the principle of the thing.

Then, with that episode off our hands, we began to drive ourselves crazy trying to think of ways and means to get off this world. Our transmitting apparatus wasn't powerful enough to signal somebody to come and get us.

And if we waited around for somebody like Georgie Periwinkle, the mathematical genius, to discover this planet and start an exploration, why we'd all be starved; or, at the least, we wouldn't get our precious load of automobiles to Pluto.

No matter which way you looked at it, things were an unholy mess.

AND then the kid went and did it again.

We had been bottled up on the planet a week. We had stopped working on the main jets—they just wouldn't fix. Old Scratch and I were sitting on the

bridge and looking at the walls, hopeless, when the doors open and in comes the kid.

Old Scratch made an annoyed, tired sound.

The kid's face was flushed. If I didn't know he was just a kid, without any sense in his head, I might have thought the look in his eyes was dangerous. So I just looked at him, my mind a billion miles away.

The kid was almost panting with some kind of nervousness.

"Cap'n" he husked, "I know how to get us off this planet!"

Old Scratch muttered to himself, "Yeah? Run off and peddle your peanuts some place else. Can't you see we're busy? Besides, you're fired."

The kid's voice trebled. "You better listen to me!" he panted.

Old Scratch looked at him. A gleam came to his eye. The front legs of his chair hit the floor, and he started to roll up his sleeves.

Quick as sound, the kid leaped back, his eyes just like slits. Suddenly my breath zipped from my lungs at what I saw.

"Stand back!" he yelled, as I came to my feet and started toward him.

"Put that paralyzer down!" I snapped. "You want to hurt somebody?"

"Stand back!" he yipped, fairly dancing on his feet.

But I knew he was just a kid, and that he wouldn't pull the trigger and I started toward him, sore as a boil, when suddenly—well, suddenly. I was out cold. Dead to the world. Something had nudged my brain, had short-circuited certain nerve centers.

And that was absolutely all I knew until I opened my eyes, and there I was in that all-fired ship's hospital again, and Dr. Ran Tabor was breathing his liquory breath into my face.

The quartermaster, the chief engineer, the maintenance chief, and half a dozen others were standing over me.

They started yelling all at once.

"What happened?"

"Where's the captain?"

"Where's Johnny?"

So I told them, and then they told me.

Old Scratch was gone, not a trace of him or Johnny anywhere! And to tie the whole thing up, the airlock to the freight hold was open, and another automobile was missing!

"He kidnaped him," the quartermaster said. "Well, I'll be a horse's neck. It just don't make sense."

I struggled to my feet, jabbed a finger at Wilkes, Lane and Cummings, the quartermaster.

"Break out another one of them automobiles," I snapped. "We're going to find that kid, and when we get him—"

I DIDN'T know exactly what I would do with him. But it would be something drastic. Something horrible. Something ghastly. Yes, it would! And if I felt that way, how would Old Scratch feel when we finally freed him? I began to get happier with each passing second.

We made the low, sloping hills in fifteen minutes, following the path the kid had taken the time before. We went beyond the hills, winding our way around unbelievably smooth boulders, following the tire tracks through the sand and gravel. We went pretty fast, hitting high as much as we could, and after about an hour we noticed the plain was beginning to slope—all at once. I mean, the whole plain was tilting up.

"Say, that's funny!" said Cummings.

I'll say it was! It got even funnier. The farther we got away, the more the plain sloped. It went past 20°, started hitting 30°. After about five hours—

we were still following the tire tracks—it went up to 45° !

We must have been four or five hundred miles away from the ship at that time. And the hill stretched endlessly upward, and endlessly to each side, and endlessly downward.

Practically speaking, it was a plateaulike surface, stretching away evenly in all directions, with occasional small hills and swells growing out of it. A lopsided plain!

It was the mightiest, eeriest, most colossal hill I've ever seen or ever will see, because it never seemed to end, though we went up for miles and miles and more miles.

We saw that crazy moon, and did it have an eccentric orbit? It did! It came 'small over the horizon, and slow. And got smaller, went slower until, even when it set on the horizon that was the apparent top of the hill, it was so distant that we couldn't see it at all!

We pushed on, our mouths open, so absolutely flabbergasted we couldn't say a word. We began to feel light-headed. We began to make motions that moved us further than we meant them to. We couldn't understand it at all!

And then we saw the automobile, Old Scratch and the kid. Just a tiny black dot way up there, coming toward us at a terrific clip. It detoured swells and small hills, missed boulders and detritus and gullies by hairbreadth turns, coming on as if hell was sitting on its tires!

And then we saw why.

And it sent a chill down our backs as we watched. It was a death race with an avalanche, that was—and *what* an avalanche! It was a mountain of boulders and detritus and talus, and small hills, and it filled the whole horizon.

I stared at it through the windshield, chills racing up and down my spine.

The kid drove like mad, and we could see Old Scratch in the seat beside him, his face florid. They were near now, and Old Scratch was making wild, crazy gestures.

What for? I don't think any of us realized that the avalanche was after us too, until Lane suddenly blasted in my ear.

"Wow! Turn the car!"

DID I get it then? I did! I wish you could have seen the way I wrenched that wheel over, started the atom-motor to growling! The battered machine squealed, but she yawed over, went into high, made a neat semicircle and started down the hill. Man, did we let her go! There was the colossal hill stretching below us, and the avalanche behind us, and we *went*.

And the kid came after us, just keeping away from the grinding teeth of a moving mountain by the length of a whisker.

We detoured hills, frantically sought routes around gullies, made hairpin turns, yelled with glee when we hit the straightaway. Sand and rock and pebbles skittered under our screaming tires. We plunged down that planetary mountain side as if the fires of hell were singeing the seats of our pants.

Wilkes pounded me on the back until I started coughing.

"It's catching up!" he blasted. "Faster!"

Faster? Ye gods, what did the man want? We were already doing a hundred and twenty. So I threw more mileage in on top of what I already had. And the hill was growing steeper, and I heard Cummings cursing steadily, profanely, unbelievably.

I knew he was looking down that unending slope, chopped off in a great circle where sat the frightful, star-sprinkled black horizon. But I was the

driver, and I was looking at that horizon too, and it made my hair stand right up on end to think I was driving into it!

After awhile it became a nightmare. Detour, slam on the brake, scream around impossible curves, start up a hill that ended in a cliff, yaw around, look for a better way out—a straightaway!—and down we'd go.

And I had three mad men in the car with me, so excited they couldn't get scared. Pounding me on the back. Yelling in my ears. Telling me the kid was gaining on us, and that the avalanche was gaining on the kid.

Ye gods, how that avalanche had us at a disadvantage! *It* didn't have to detour! It just took the obstructions along with it.

Everything hazed up. After all, I'd just got out of a sickbed. My hand on the wheel, my feet on the pedals, began just to do the things they had to, without my telling them. So for the last half of the ride, I was just a passenger. And even after the lopsided plain began to level off, I drove like mad.

Lane, Cummings, Wilkes started to cheer like a grandstand of people, all of whom have bet on the right horse, and are right happy about it. They had to take the wheel out of my hands, they had to push in the brake.

When I came out of my daze, the hill was gone—the big one—and the plain was a plain, and not very far away I saw the chain of low hills that circumscribed the plateau on which stood our ship.

Then we got out of the car, and I staggered around like a drunken man, until I saw the kid's automobile come screaming to a stop beside ours. I looked at him, and then I looked in the direction we'd come from.

THE avalanche was gone. As it reached the slow end of the slope, it had begun to lose parts of itself. Finally there had not been any slope to speak of and it had just petered out, dead and gone at the bottom of the five-hundred-mile hillside. Or so I thought. I know what we all felt—Lane, Wilkes, Cummings and I. About the kid, I mean, for exposing us all to the avalanche. We stood around waiting until the kid got out of his car, and I think we all were just waiting for Old Scratch to light into the kid and beat the stuffs out of him.

The kid got out first, his face flushed with excitement. He started toward us, and then stopped when he saw the looks on our faces. He started backing up.

Old Scratch got out of the car. We started to grin all over our faces.

"Now watch the fireworks!" Cummings husked joyfully.

And what started popping was our eyes. And why? Because if this was fireworks, then somebody had lit a whizzer! Old Scratch looked at us and grinned—and then threw an arm around the kid's shoulder!

I couldn't believe it. "But the kid kidnaped you!" I yipped out.

Old Scratch beamed. "Don't I know it? Wow! What a ride! Kidnaping was the only way this here kid could show me what he wanted to show me. It took a hell of a long time for me to get some sense in my head.

"Johnny," he beamed, "suppose you tell these here ignoramuses where that there avalanche come from." He grinned maliciously. And we gaped.

The kid shifted from one foot to another, grinning too.

"It came from the top of the hill," he said, as if that was all he needed to tell us. When we didn't get it, he added what he thought was an explanation.

"That's on the other side of the planet."

"The top of the hill is on the other side of the planet?" I said, trying to be real polite. "Forty-five hundred miles away?"

"Sure," boomed Old Scratch, as if he had known it all along. He began to laugh, his body shaking.

"It's the funniest damn thing I ever run across, so help me, it is! Why, this whole planet is a hill—a mountain—doggoned if it ain't! It's a hill from top to bottom. And the bottom is right where the ship landed—in the center of that ring of hills.

"Them hills is parts of avalanches that rolled all the way from the other side of the planet."

He continued to laugh, until I yelped:

"For Pete's sake, and you in the prime of life! What d'you mean, it's a hill? That we landed at the bottom—"

And then I think I and Lane and Wilkes and Cummings began to get it, and our mouths started to fall open.

THE kid grinned. "Sure," he piped up. "I knew it all along, but you wouldn't listen to me. This world we're on is a big mountain—an off-center planet. The center of gravity isn't in the center of the planet—it's about three hundred miles below the surface. Below our ship, the gravity is greatest."

He was anxious for us to understand now.

"Maybe it's neutronium down there," he suggested hopefully.

I was feeling weak, and I sat down on the running board of our car. I looked at him dazedly.

"Go on, Johnny," I said weakly. "Then all we have to do to get off the planet is to decrease the amount of gravity pulling on the ship."

"Sure," the kid said excitedly. "I

told you that, and you wouldn't believe me. The farther you go away from the center of gravity, the less it gets—it falls off as the square of the distance from the center."

He was getting enthusiastic now, and we listened to him tell us how to move the ship. That was because we were so dazed we couldn't talk.

"We use a few of the automobiles in the hold," he said, his eyes shining like a thousand watts. "We put two under the forward fins, two under the rear ones, two in the middle."

"But first we jack the ship up," said Old Scratch proudly, and then looked embarrassed as he realized that was pretty obvious.

"We hitch more automobiles up to the nose of the ship with chains," the kid went on. "Then we carry the ship over the plain and to the hills. There we look for a gap in the hills, and clear away some of the big boulders and get the ship over the detritus of the avalanches—maybe by making a roadway out of some rocks—and then we start pulling the ship up the hill!

"And when we get"—he stopped and his eyes got a preoccupied look, and then came back to us—"when we get the ship 733-point-three-nine miles away from where she is now, why, the gravity'll be exactly three-fourths of a G."

"Go on," I said. It was getting more and more like pretty music, the things he was saying.

"Why, then we can make it!" he said excitedly. "We can use the forward jets, and they'll lift us from three-fourths of a G! That'll take about—about two weeks, maybe. That leaves us thirty days to get to Pluto. And we can make it, too!"

His eyes went toward heaven again, and I thought I began to see mathematical symbols parading across his

cornea. He said, "Yes, we can! I'll compute you an orbit myself!"

Old Scratch began to laugh. It got so he couldn't stop himself.

"He'll compute us an orbit," he gasped, pointing at the kid. *He'll* compute us an orbit! And it takes an expert what's got a dozen years training behind him to do that.

"Now, you listen, Johnny," he said, speaking very kindly. "You're a smart kid to be able to figure this here planet out, but you ain't *that* smart! You let that there job of computing up to me or Sandy or somebody that knows Planck's Constant * from a board."

The kid's cheeks began to burn.

"You guys are the *dumbest* bunch of pickle-pusses I *ever* ran across! Yes, you are! I tell you you're on a collision course, and you crack up, and *still* you don't believe me. I figure out a planet for you, and tell you how to get off, and *still* you think I'm just a dumb kid that can't compute an orbit!

"How do you think I knew this was an off-center planet? Why I *knew* that those hills around the ship were just detritus that had rolled down the hill? The boulders were so smooth, just like they rolled a long way. And I figured the eccentric anomaly** of that moon, and I knew it came in close and went so fast because it had to, where the gravity was greatest."

"You actually figured the eccentric anomaly of that there moon?" said Old Scratch incredulously. "Now don't pull my leg," he added in warning.

"Sure I did! In my head, too. And

*Max Planck was a German physicist, who first asserted that the energy of radiation is emitted and absorbed in integral multiples of certain indivisible "quanta" of energy which depend on the frequency of the oscillation of the electrons. This law of radiation is called Planck's Constant.—Ed.

** The angular distance of a planet from its perihelion from the sun, which measures apparent irregularities in its movement.—Ed.

I figured exactly where the center of gravity was."

We stared at him harder and harder. Things were beginning to click in my head at last! The kid began to flush. He shifted from one foot to the other, the harder we stared at him. He got a guilty expression on his face. He avoided our eyes, like he thought maybe we had something on him.

"I guess you guys got me pinned down," he blurted out finally, and his lower lip began to tremble. "Now I guess you'll send me back to the Philadelphia Science Institution. But I couldn't stand that dry, stuffy old joint. And when I saw your orbit figures on the paper, I knew you were on a collision course. So I sent a telegram to my friend, the President of the United States, and told him I was running away, and then I waited in an alley until your—"

And by that time I had it. I jumped to my feet, yelping to high heaven: "Georgie Periwinkle!"

The kid shifted from one foot to the other, embarrassed and ashamed-looking.

There was a big silence, and then everybody started to explode.

"Wow!" Old Scratch yipped out, and his eyes began to bulge.

Georgie Periwinkle, the mathematical prodigy, with six comets, two new planets—three, now—a new subatomic particle, and a mess of miscellaneous inventions to his credit!

Georgie Periwinkle flushed redder and redder while we stared at him.

"So we'll get to Pluto on time," he said, trying to change the subject.

But we kept looking at him, and finally we started grinning all over our fool faces. Georgie Periwinkle! Did we feel wobbly!

The kid said, uncomfortably, "And
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then I ran away, and I hid in an alley, and waited until your cabin boy came along, and then I hit him over the head with a sandbag, because I had to get his—”

OLD SCRATCH lost his grin. He purpled.

“You hit him over the head so you could get his job?” he yelled. “So *that* was why—”

Suddenly he began to laugh. He got so he couldn't stop himself. He began to laugh tears out of his eyes.

“He hit him over the head!” he yelled. “So help me, if that ain't the funniest—”

About that time I grabbed hold of the skipper and dragged him toward an automobile.

“Come on! We got to get off this off-center planet before you get that way, too!”

I never did like that other cabin boy anyway. No brains. Know what I mean?