

A Short Story

ATOMIC BONANZA



GEORGE O. SMITH

A Short Story

ATOMIC BONANZA

GEORGE O. SMITH



TINY WINDOWS

Cover: Artwork created by Andrew Van Wyk with
MidJourney AI software.

"Atomic Bonanza" was originally published in *Science Fiction Quarterly*, May 1951. Extensive research did not uncover any evidence that the U.S. copyright on this publication was renewed.

This story is in Public Domain and is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of use provided by US copyright law.

Additional information can be found online at:

TINY WINDOWS
www.tinywindows.xyz

A device which could decontaminate any bit of radioactive matter would be invaluable—only it was impossible. But Doctor Velikof was ready to demonstrate just such a machine!

The visitor arriving at General Atomic Research climbed a broad flight of stairs and then encountered a sort of plaza presided over by a rare combination of brains and beauty. Here the visitor inspected the beauty while the brains inspected the visitor's credentials. After which mutual inspection the visitor stepped into the exact center of a long corridor and turned either to the right or to the left, depending upon which of the two main offices he was to visit.

At one end was the office of Doctor Howard Mangler, Director of Research; at the other end of the corridor was the office of Phillip Newton, Director of Operations. Between the two was the corridor called "The Battlefield" by the clerks, stenographers, and office boys.

Up and down the silent battle raged, its casualties mutely entombed in the filing cabinets, swathed in directives (with carbon copies) and counter-directives (with carbon copies).

It was not a bloody battle. It was fought with words and words and words of argument, counter-thrust, statement, rebuttal and rejoinder; espionage and security. The objective was Control.

For Howard Mangler objected most violently to having a "mere business man" running the delicate field of Operations, while Phillip Newton felt that physicists should stay in their white ivory tower and let business men run the details of business. Open battle did not join every day, sometimes it smouldered for weeks before breaking out in a welter of directives, memorandums, and hot words. But any long period of quiet brought a foreboding of imminent war to the office force; and when the first thrust was sent home, the force cleared its desk so that the passage of memorandums could flow untrammelled by the processes of work.

The rumor of war preceded the opening of hostilities by long enough for preparation so that—

"Lillian, you'd better polish off that batch of invoices, quick-like."

"In a hurry?"

"We will be. Grant has just invaded Richmond."

"Oh."

Sometimes it was Shiloh, but when Grant invaded Richmond, it meant that Howard Mangler had stamped down the long corridor to blast his way through the defences of the outer office of Phillip Newton and into the inner sanctum itself—and was now firing his big guns in the enemy's face.

"This has got to go through!" roared Mangler.

"It is unnecessary."

"How would you know?" demanded Mangler.

"The inventory says we have twelve Tectrosopes now; what do we need with four more?"

"Because we have more men."

Newton snorted. "Does each man need a complete set of laboratory equipment?"

"Not a complete set. But a thing like this—"

"I've been through there recently and found no less than eight of them not even turned on, let alone being used."

Mangler grunted. "It's not the constant use that demands extra equipment. It's the fact that it takes time for a man to run down what he needs, borrow it, set it up, and then return it."

"You'll have to continue that way for a bit; we're over our budget now."

"By forty thousand?"

"Almost."

Mangler sat back with a derisive gesture. "And I know why," he said with scorn.

"Indeed?"

"I do. You've sent through an appropriation for fifty thousand for your own fool—"

"I'm no fool, Mangler!"

"You are."

"If so, you are an opinionated idiot!"

"My opinion is quite valid."

"In your own opinion, your own opinion is valid. Stop defining 'A' in terms of 'A', Mangler; if I did that you'd be the first to scorn my definitions."

"What in the devil do you know about atomics anyway?"

"Only what you've taught me; if I'm a fool, it's your fault. What do you know about business?"

"Enough to make a time study and add up to four. Enough to balance the price of equipment against the lost man-hours because of the lack of it, and come up with a mathematical decision."

"But an eminently impractical decision; blood cannot be extracted from a radish."

"No, but you can dig up a bunch of radishes, sell them, and buy a pint of blood."

"That takes time. Just wait. As soon as we catch up with our budget—"

"If you hadn't sent through that appropriation—"

"I have that right."

"For what?"

"A device that, first, is needed right in our laboratory and, second, will eventually bring in millions once it is developed in large size."

"And may I ask the nature of this marvelous instrument?"

"Mangler, what would be the ultimate worth of a device that can extract the radioactivity of—"

"Worth billions, but it can't be—"

"Exactly. Such a device would be worth billions."

"Trillions. Any number you want. It just ain't practical. In words of one syllable that even you can understand such a process does not exist—nor can such a device be made."

"This decision of yours is, I gather, final?"

"It is no decision of mine. It is the opinion of every scientist worthy of the name."

"Who, of course, know all there is to know?" sneered Newton.

"Extracting the radioactivity from a radioactive substance is impossible."

"Come, now, Doctor Mangler. There were learned gentlemen who proved conclusively that no vehicle heavier than air could ever get off the ground under its own power."

"Granted. Using the same mathematics it is possible to prove that the bumblebee is aerodynamically impossible. The half-life of a radioelement is set by the nuclear structure of the element. What you are stating is that the half-life of any radioelement can be cut down—"

"Not at all. I'm stating that I intend to purchase a machine that will completely remove radioactivity regardless of half-life."

Mangler sneered. "Tell me, Newton, if you were to put a lump of radium before this machine, would it turn out to be stable radium—or convert itself all the way down the radioactive ladder to inert lead in the same instant?"

"This is the sort of hypothetical question you always enjoy tossing around, Mangler. I suggest that you procure a half pound or so of radium and we'll try it."

"Then you have only rumor to go on?"

"Look, Mangler, let's make a premise or two. You'll not deny that I know what a Geiger counter is, and how it is used?"

"I'll grant that."

"All right then. Now, I've been shown a machine and a sample of radioactive material. I've been permitted to test this radioactive sample

extensively. In fact I had it here for a few hours, using our own test equipment and it was definitely radioactive. This is established to your satisfaction?"

"Go on."

"Then this sample was placed in the machine and within a matter of a minute or so the sample was returned to me, inert and cold."

"May I ask whether there might have been a substitution of sample?" asked Mangler with a sneer.

"No, there was not. I have it here," and Newton tossed a lump of stuff on the desk.

"Carnotite ore," said Mangler picking it up and looking at it through a jeweler's loupe that he took from his vest pocket. "Or at least what appears to be."

"I put my own mark on it," said Newton complacently.

Mangler eyed Newton coldly. He started to say something but stopped before he began.

Newton smiled serenely and went on: "This is merely a pilot model," he said. "With a bit of development, the device can be made to work on a large scale. We can decontaminate our by-products; we can render safe any radioactive area. Why, the value of machinery we toss out every month will pay for it in a short time. Time and time again something in the hot-cave breaks down. Last week it was five hundred dollars worth of analytical balance, discarded because of a broken bearing worth about a dollar and a half. It wouldn't work right, and it was so hot that no one could repair it safely. Think of it!"

"As you said before, such a machine would be worth billions. But no such machine can possibly exist."

"You're certain of this?"

"Of course I'm certain."

"Which means, naturally, that you know all there is to know."

"I know what is the common knowledge of the topmost scientists of the world."

"Including the recent discoveries of the men who work behind the iron curtain?"

"Russia has no corner on brains."

"Nor have we; just remember that."

"So this miraculous gadget came from Russia?"

"It did."

"Indeed!"

"Don't scoff. Doctor Velikof escaped with his life."

"And the machine, of course."

"Yes. He stole the pilot model and escaped."

"Go on, Newton." Mangler's use of Phillip Newton's last name was scornful; a sore spot frequently rubbed raw. Mangler used it in this same scornful tone whenever Newton tried to invade the premises of science. Mangler's tone inferred that Newton was identifying himself with Sir Isaac Newton; it was on the same level of ridicule as calling a bald man 'Curly'.

"Doctor Velikof wanted out. He escaped with no more than his clothing and the machine—it fits into a small metal cabinet—because he knew that it would bring him enough money here to permit his comfortable escape and ultimate freedom. Even now he is not free from danger because the Soviet agents are everywhere, and doubtless most of them are on the lookout for him."

"Naturally," nodded Mangler in a soft voice.

"He came to me because he knew I was investigated and cleared for secret data by the Government and therefore could have no connection with the Soviet. He was extremely cautious at first, but he's relaxed since. Why, it was at least three weeks before he would show me his machine."

"Which you swallowed, hook, line, and sinker."

"But not without careful investigation."

"Such as?"

"I've seen it work!" snapped Newton.

"This I'd like to see myself."

"I'd take you along tomorrow excepting for one thing."

"Tomorrow?"

"I'm giving Doctor Velikof the voucher and taking possession of the machine tomorrow morning at ten ack emma."

"And your objections?"

"You'd foul up the deal."

"How?"

"Like most of your ilk, you'd want to spend a few years investigating the properties of the machine. You'd have someone make a mathematical analysis of the process, want to test it on this and that, and then you'd priff around for six more months before you decided whether to pay off now or a year from now. In the meantime Doctor Velikof would be in great danger, if not dead by then."

"And if I promise not to interfere?"

"Under those circumstances—"

Mangler eyed Newton calculatingly. "Will you put in writing a statement that you are inviting me to witness this affair under the single provision that I interfere in no way, shape, or fashion with your business deal with this Doctor Velikof?"

"I'll be most happy to."

"Good," said Mangler with a smile. "This will be double protection; if I interfere and louse up the deal, you'll be able to clip me. If I don't bother to keep you out of a sucker's bait, you won't be able to blame your mistake on my silence."

"That's a deal."

"Deal," said Mangler.

Mangler turned and left the office. His passage along the corridor was followed by the eyes of the office force, and when Newton called for his

secretary to come in for dictation, there was a general cleaning of desks. The primary cause for another mild paper shortage was expected to arise at any moment now.

Newton rapped at the hotel door and the door opened after a minute. It opened a mere crack first, then it swung wide as Doctor Velikof saw Phillip Newton. "Come in," he said in a rather thick accent. Then he saw Mangler and frowned. He started to swing the door shut; he looked at Newton with a half-trapped expression which was as though he felt that a trusted friend had betrayed him.

"Don't worry," said Newton cheerfully; "this is Doctor Howard Mangler."

"How do you do?" inquired the Russian uncertainly.

"Fine, thank you," responded Mangler.

"Doctor Mangler is safe; I can—"

"Now that I know his name I know," said Doctor Velikof. "He works with you."

"That's right."

"However, I'd have preferred it otherwise. Yet he is here," said Velikof in a resigned tone.

"You can be sure that your secret is safe with him."

"This I am sure of," nodded the Russian quickly. "Yet the best of intentions sometimes—you understand? I have no lack of faith in you, Doctor Mangler; in fact I'd have been most happy to meet you under other circumstances. But like most questions of security, the safest secret is one which is not labelled secret, and which is known only to the absolute minority."

Mangler nodded. "I know very well how this thing can affect you. Have no fear; I'm here only as a curious physicist who wants to see the first machine in operation—a machine that apparently does what cannot be done."

"I'll be glad to show it to you," said Velikof smoothly. To Newton he said: "Everything is ready?"

"Of course," nodded Newton. He reached into an inside pocket and produced an envelope which he handed to Velikof. "Sorry that it must be in certified check, Doctor Velikof."

"I understand; it is as sound as cash."

"I assure you it is."

Velikof nodded and then looked at Mangler. "You are skeptical," he said sincerely. "But only because you do not understand."

Mangler nodded cynically. "According to what is known about radioactivity, you are about to violate something of a universal law."

Velikof shook his head. "Universal laws cannot be violated. When a universal law obstructs scientific achievement, the thing to do is to work it so that the universal law can be turned around to operate in your favor."

"And," said Mangler pointedly, "one can sometimes evade the law for a period of time during which one can get away with some amazing things. But always the law catches up with one."

"You do not believe—?"

"Frankly, no. But I'm willing to be shown."

"Then come!" and Velikof led the two Americans from the reception room of the hotel suite to the bedroom. "There it is," he said proudly.

There it was. Mangler eyed the set-up critically. Scientist, experimenter, and practical engineer, Mangler looked the equipment over with his experienced eye. The stuff had been set up on one of the long portable tables used by hotels to furnish display tables in conventions and the like; and the construction of the table precluded any under-cover fancywork. Smooth but bare boards were set upon sturdy horses; a single line-cord led from a wall socket to a small metal case studded with convenience outlets in which several A.C. operated gadgets were plugged. Standard as could be.

At one end of the table was a rather expensive analytical balance. Next to it was a volumetric graduate and system to measure the true volume of an irregular solid to a remarkable degree of precision. Not content to use these pieces for the purpose, the third equipment on the table was a

simple but accurate equipment for measuring the specific gravity of solids. There was a spectrometer and its associated gear, the use of which could give an extremely close estimate of the composition of a sample. A small sliver taken from a larger sample could be tested and from the proportion of sample to sliver, the elemental structure of the larger sample could be obtained. Some electrical equipment came next, specific resistivity, magnetic moment, dielectric constant, piezo-electric axes.

"We do not use them all on every sample," said Velikof. "One could hardly measure the dielectric constant of a block of radiosilver, for instance."

"But silver—like all metals—still has a dielectric constant."

"Of course. And a block of copper has an index of refraction. These are scientific measurements and concepts and not practical for this purpose; here we work in the concrete and not the abstract."

Mangler shrugged. The next bits of equipment he recognized; one was a counting-rate meter that had the nameplate of a popular manufacturer of scientific equipment. Next to it was a portable Geiger counter, which had the inventory-plate of General Atomic Research screwed to the panel.

"That's here on lend-lease," said Newton cheerfully.

Mangler nodded again. From what he could see, Velikof's equipment was beyond reproach. Used under the eyes of Newton, nothing short of a hidden cyclotron could create a false impression of radioactivity in an inert sample. Used in front of Mangler, not even a hidden cyclotron could be used to falsify any evidence.

But it was the final item on the board that interested Mangler. It was a small, leatherette-covered case with a suitcase handle on one side. It had a panel across the face which was covered with dials etched in Russian characters. Below the characters indicating the function of the several dials, someone (either Velikof or Newton) had used a grease-pencil to letter in the English equivalent, of mass, of volume, of the various factors that are the measurements of matter. And the bottom row of dials could be set to the activity-constant of radioactive emanations, alpha, beta, and gamma.

The case came open in the middle; this control panel and its insides filled one half of the split case. The other half was open behind it, and it was

obvious that the equipment standing next to the control panel fitted neatly into the open half of the carrying case.

The base of this equipment was a larger cylinder made up of an electromagnet. The core was laminated, the ends of the laminations showed across the flat dome of the cylinder. The coil of wire came up even with the top of the laminations so that little of the surface of the cylinder could be seen. The bottom was a flat circle of metal large enough to extend beyond the coil; it made a neat base. Rising from the metal base were three metal struts that passed up (almost touching the outside of the electromagnet) to a superstructure above the flat face of the laminated core of the magnet. It was obvious that the sample would rest on this flat face.

The three struts held a spiral of glass tubing that was terminated in electrodes similar to the terminals of a neon sign tubing; these were connected to the cable that led from the gear to the control box. Atop the glass spiral was a flat circle of aluminum.

"Radioactivity is a state of instability in the nucleus," explained Velikof.

Mangler nodded. Velikof had said nothing that could not be obtained from a fundamental book on atomics, circa 1935.

"The condition known as half-life obtains because of the statistical nature of atomic structure. Any single atom is not radioactive; it is only in an instable state in which it contains more than enough energy to hold it together. When it ejects this excess energy, it is radioactive only for that instant. Then it becomes a stable nucleus. But when a statistical quantity of such atoms are present—and any gross matter no matter how minute will contain a statistical quantity—there is always some number of atoms in the radioactive state of ejecting the excess energy. Some do it quickly; others take their time.

"In order to remove the excess energy all at once it is necessary to control the nuclear particles themselves."

"Which—up to now—has not been done," suggested Mangler.

"Right," beamed Velikof. "An instable atom can be considered as a billiard table with the balls in motion. The stable state consists of the balls at rest. In the radioactive atom, the balls contain a total excess energy sufficient to drive any one of the balls from the table but this excess energy is divided among them. Until the random motion of the

components and the attendant transfer of energy from one to the other results in one component eventually containing this excess energy all to itself, nothing happens. Then, when this does happen, the ball has enough energy to leave the place—in other words, the particle is ejected."

"Fundamental," said Mangler. "But how do you control the nuclear particles with this equipment?"

"By inserting the radioactive sample in fields which work on the electrostatic, the momentomagnetic, and the mechanogravitic properties of the nucleus."

"This I've got to see," said Mangler.

Velikof nodded. From a heavy metal case he took a small lump of stuff that looked like a piece of ore. He handed the long tongs to Mangler, who viewed the sample from a safe distance through a piece of leaded glass conveniently placed on the table.

"You expect trickery," said Velikof. His tone suggested that he was unhappy that Mangler did not believe him. "Mark it if you like."

"I'd like to, but I'd rather not get that close to hot stuff."

"Then inspect it carefully and note anything characteristic about its structure. That way you can be sure."

"Just put the show on the road," said Mangler.

"All right."

Velikof tested the sample before the Geiger and the counting rate meter. From readings obtained, he set the dials on the control box. Then Velikof spent many minutes weighing, measuring, and testing the sample, transferring mass, volume, and so forth to the proper dials on the box. He re-tested the sample before the counters and rechecked his dial-settings, which he did not have to change.

"You will notice that the radioactivity has not diminished in the half-hour I've used to measure the sample," said Velikof.

Mangler chuckled. "The intensity there," he said with a wave at the counters, "is such that any short-term half-life radioactive you could get would have started off hotter than Oak Ridge itself. Go ahead."

Velikof lifted the top aluminum plate and set the sample on the laminated end of the electromagnet. With the top plate back in place, the sample could be seen through the coils of the glass spiral.

"Now!" said Velikof sharply. He thrust in a small switch on the instrument panel.

There came a faint sizzle of corona and the top circular plate showed a few leakage-spikes from some sharp edges. There was a general, but very gentle tugging at iron-containing items in the pockets; the sample moved a bit.

A meter moved swiftly up the scale towards a red line and as it reached the line, the coils of glass flared with blinding brilliance and a faint, metallic "Ting!" rang from the equipment.

Velikof laughed. "I know best of all that we should not look at it," he said; "but even I cannot avoid it."

Mangler looked towards the ceiling. There was a spiral image that moved with his eyes, a scintillating retained impression that changed in color from flaming green to beautiful blue to blood red, then white, then blue, then green again. It faded slowly; it appeared in changing color behind the closed eyelids, it became bright again and died again and faded away to return. Looking at the sample, the retained color in the eye-image matched the equipment and registered with the glass spiral and made it look as though it were still glowing.

Velikof lifted the top plate and took the sample out with his bare hands. He handed it to Mangler and said: "Test it!"

It was dead.

Mangler looked at it, then looked at the equipment. "This I've got to inspect," he said in a low voice.

Velikof smiled. "Now you believe."

"I'd never believe it possible."

Newton smiled self-confidently. "We'll have plenty of time to see what makes it tick," he said.

"But where does the activity go?" asked Mangler.

"It is changed into harmless radiations of mere light, a bit of electrostatic discharge, and a burst of magnetic field," said Velikof. "All energy has an equivalent wavelength; by inserting the proper equivalent wavelength artificially and exciting the material properly, the energetic radiation is heterodyned into harmless energy which can be dissipated easily."

"Amazing! Have you another sample?"

"No, unfortunately. Radioisotopes cost money. Why?"

"I'd like to try it again."

"You may do it at your laboratory. This machine is now yours."

"Then let's take it out of here—quick! I've got work to do!"

Newton smiled. "We'd like another check-out on the process," he said.

"Well, we can go through the mere motions," said Velikof slowly.

"Oh, no," said Newton. "I've a sample here with me."

"With you?" exploded Mangler. "That's dangerous, you idiot."

"Not at all," smiled Newton taking a small flat case from his pocket. It was heavy; lead. He pried it open on the table with a long screwdriver and lifted a small sample out of the case with the tongs. "Now we can do it again," he said happily.

The counters chattered happily as Newton held the sample in front of the probes.

Velikof looked at his watch. "Would you like to try it?" he asked nervously. "The banks close at noon today, you know."

"You have a half-hour. Then, there's always tomorrow."

Velikof shook his head. "Tomorrow I must be gone," he said; "there are men who would kill me for what I've done."

Newton smiled. "You have a good half-hour. I'd like some instructions. Please?"

Velikof nodded. "You do it," he said. "But please hurry."

"The measurements take time."

"I know. But—well, go ahead."

Newton nodded and put the sample on the scales. His hands fumbled a bit and he started over—

"Please hurry."

"I guess that's close enough," said Newton. He set the mass dial, looked at it, looked back at the balance, then shrugged. He dunked the sample in the volumetric graduate, flashed it through the electrical bridges, and made the appropriate settings on the dials of the control box.

"You're being rather sloppy," said Mangler pointedly.

"I fear he has been too sloppy," said Velikof. "But we have too little time to repeat."

"You set the radioactive constants," said Newton to Mangler. Mangler thought for a moment and then set them; and his setting was precise.

"Now!" said Newton. He thrust the switch home.

Again came the brief sizzle of corona, the urge of magnetic attraction, and then the blinding flare of light.

Newton reached for the sample.

"No!" said Velikof quickly.

"Why?"

Mangler grunted. "You've been as sloppy as a kid," he sneered. "That sample is probably as hot as it was."

"But you have the right process," said Velikof. "And now I must get going."

Shrugging, Newton took up the tongs, lifted the sample from its place, and thrust it in front of the counter.

The counter was silent.

"Dead!" glowed Newton.

"HMMMMM."

Velikof turned back from the door. "Dead?" he said. "Dead?"

"Dead," said Newton. "I couldn't have been as sloppy as you accused me of being."

"Maybe the thing isn't as demanding as you suggest," said Mangler.

"We'll find out," said Newton; "Howard, help me pack up."

"Sure."

Velikof shook his head. He handed the envelope back to Newton.

Newton took it, wonderingly. "Why?"

"I'm not selling," said Velikof.

"But you did sell. It's mine—ours."

"You took your envelope back."

Mangler growled. "Not if I have anything to say about it!"

Velikof eyed Mangler, looked the big man up and down. "But this isn't —"

Mangler flexed his hands. "You can't play that game with us," he snarled. "What do you want—more money?"

"I want my machine. It has just occurred to me that I know how to exploit it for myself, in safety from my countrymen."

"Well, you can't back out of a contract that easily."

"This is a matter of business," Newton said softly, as he waved Mangler aside. "Which comes under my jurisdiction. I'll handle it."

"All right, but don't let him get away with that machine."

"Business is business," smiled Newton. Then to Velikof, he said: "Business is one of the things we Americans specialize in, you know."

"I see," said Velikof; "you want a profit."

"We want the machine!"

"This is my job, Howard." Newton nodded at Velikof. "Make me an offer."

"You have your original fifty thousand; I'll buy the machine back for ten thousand."

"No."

"Twenty."

"No."

"Twenty-five."

"Hmm."

"Look, Newton, this is worth a lot more than that."

"Thirty."

"Make it fifty."

"Done!"

"Cash!"

Velikof went to the dresser drawer and took out a sheaf of bills. He counted off fifty of them and handed them to Newton. "Now get out!" he snapped.

"Oh, come now, let's be friends."

"So that he can see my machine and copy it? No!"

"Come on, Mangler. Let's go."

Newton led Mangler from the room. The elevator that came for them also dropped six policemen who hurried up the hall. They were rapping on the door as the elevator door closed.

"You're an imbecile," snapped Mangler. "I know what you're thinking; that I could reproduce that machine. But I can't. I can't. And you've sold it back for a measly fifty thousand. You're an imbecile. It's worth millions."

"No, just fifty thousand," said Newton, waving his envelope.

"But Velikof will make millions—"

"He may have," chuckled Newton, "but not any more; the gentlemen in uniform will see to that."

"What do you mean?"

"Mangler, I bow to your knowledge in matters scientific, but the Commission put me in charge of business because you are incredibly naive. A few years ago they were selling little doohickeys that printed dollar bills. Ten days after Hiroshima, there were advertisements for everything from atomic permanent waves to atomic patent pills. Develop something new, and there will be ten sharpeners making sucker-money out of it."

"But what happened?"

Newton chuckled. "First, Velikof, who is a charlatan of the first water, demonstrated a machine to me. I, a simple business man, was duly impressed by the wonders of science. I agreed to buy this fabulous gadget for fifty grand.

"Then," he continued cheerfully, "I mentioned it to you. You jeered, and then finally went along with the gag so that you'd have the splendid opportunity of watching me get clipped.

"And then again," he went on even more cheerfully, "the man who knew it wouldn't work in the first place was convinced by a bit of sleight-of-hand. There, Mangler, you did a fine job for me."

Mangler growled. "Yeah—? How?"

"By acting your natural self: The brainy physicist being convinced by a gadget. You convinced the charlatan that he had something."

"But—"

Newton grinned. "Mangler, you should know by now that cylindrical magnet cores are never made of laminations because it is just as efficient to make a square core out of laminations. Turning a laminated core is an unnecessary nuisance."

"Yes."

"So I figured that the only reason for making a laminated, cylindrical core was to conceal some minute crack—the sort of crack that would be visible on a smooth surface. The sort of crack made by a pair of cunning trap doors. Two samples, elaborately sculpted into remarkable similarity, one radioactive and one dead. God knows how many times Velikof has done this bit of legerdemain at fifty Gee a clip. Safe, too, because no man would care to handle the hot sample close enough to mark it. The flare of photostrobe light to blind the eyes, the elaborate preparations, and all the rest. And so, the gent who was going to watch me get clipped fell for the job itself!"

Newton roared with laughter.

"But—"

"Oh," said Newton cheerfully, "even you don't get it?"

"No."

"Simple. Y'see, I had to make a profit. I used a few thousand dollars worth of radon gas. Radon gas and beryllium produce lots and lots of neutrons. Neutrons can bombard elements; I had one of your boys prepare one of the short-term elements for me and put it in my little lead box. One of the five-minute half lives that would activate the counters and then die out in the half hour it took to run through the measurements. By being sloppy in my analysis, I convinced Velikof that his equipment could be made to actually work if he figured out how wrong to set his dials!"

Newton waved the envelope at Mangler. "So from here on, you stay at your end of the hall and run the gadgets, and I'll stay at my end and run the business. And if you are a good gadgeteer, I'll put through your request—not order—for tectrosopes. I guess we can afford it, now."

THE END

ABOUT THE AUTHOR



George Oliver Smith (April 9, 1911 – May 27, 1981) (known also by the pseudonym Wesley Long) was an American science fiction author. He is not to be confused with George H. Smith, another American science fiction author.

Smith was an active contributor to *Astounding Science Fiction* during the Golden Age of Science Fiction of the 1940s. His collaboration with the magazine's editor, John W. Campbell, Jr. was interrupted when Campbell's first wife, Doña, left him in 1949 and married Smith.

Smith continued regularly publishing science fiction novels and stories until 1960. His output greatly diminished during the 1960s and 1970s when he had a job that required his undivided attention. He was awarded the First Fandom Hall of Fame award in 1980.

He was a member of the all-male literary banqueting club the Trap Door Spiders, which served as the basis of Isaac Asimov's fictional group of mystery solvers the Black Widowers.

Smith wrote mainly about outer space, with such works as *Operation Interstellar* (1950), *Lost in Space* (1959), and *Troubled Star* (1957).

He is remembered chiefly for his *Venus Equilateral* series of short stories about a communications station in outer space. Most of the stories were collected in *Venus Equilateral* (1947), which was later expanded with the remaining three stories as *The Complete Venus Equilateral* (1976).

His novel *The Fourth "R"* (1959) – re-published as *The Brain Machine* (1968) – was an examination of a child prodigy, a digression from his concern with outer space.



TINY WINDOWS

TINY WINDOWS

A curated collection of classic and original short fiction highlighting authors from yesterday and introducing the storytellers of tomorrow.

We highlight classic stories from history, introduce contemporary authors of the present, and commission original and exclusive works in an effort to follow the muse and meet publishing and film industry desires.

Questions about licensing or adapting? Want to know more about these writers or this story? Please reach out.

FOUNDERS

ANDREW VAN WYK

+1.424.341.4121

andrew@tinywindows.xyz

VAN DITTHAVONG

+1.323.905.2050

van@tinywindows.xyz