

# Vulcan's Workshop



**Harl Vincent**

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**V u l c a n ' s**

# By Harl Vincent

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SAVAGELY cursing, Luke Fenton reeled backward from the porthole, his great hairy paws clapped over his eyes. No one had warned him, and he did not know that total blindness might result from gazing too earnestly into the sun's unscreened flaming orb, especially with that body not more than twenty million miles distant in space.

He did not know, in fact, that the ethership was that close: Luke had not the faintest notion of the vast distances of the universe or of the absence of air in space which permitted the full intensity of the dazzling rays to strike into his optics unfiltered save by the thick but clear glass which covered the port. He knew only that the sun, evidently very near, was many times its usual size and of infinitely greater brilliance. And he was painfully aware of the fact that the fantastically

Mighty Luke Fenton swaggers defiantly in Vulcan's Workshop, most frightful of Martian prisons.

enlarged and blazing body had seared his eyeballs and caused the floating black spots which now completely obscured his vision.

Stumbling in his blindness, he fell across the hard cot that was the sole article of furniture in the cell he had occupied for more than two weeks. Lying there half dazed and with splitting head, he cursed the guard who had opened the inner cover of the port; cursed anew the fish-eyed Martian judge who had sentenced him to a term in Vulcan's Workshop.

Several of Luke's thirty-eight years had been spent in jails and sundry other penal institutions devised by Earthman and Martian for the punishment of offenders against the laws of organized society. And yet they had failed to break his defiant spirit or to convince him of the infallibility of his creed that might makes right. Nor had they taken from him the gorillalike strength that was in his broad squat body, the magnificent brute lustihood that made him a terror to police and citizen alike. Instead, the many periods of incarceration had only served to increase his hatred of mankind and his contempt of the forces of law and order. Especially was he contemptuous of the book-learning that gave the authorities their power.

As the pain back of his eyes abated, Luke could see dimly the shaft of light that slanted down from the porthole to the bare steel floor. His sight was returning, yet he lay there still, growling in his throat, his mind occupied with thoughts of his checkered past.

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**S**TEEL-WORKER, mechanic, roustabout, he had worked in most of the populous cities of Earth and had managed to get into serious trouble wherever he went. It was his boast that he had never killed a

man except in fair fight. And yet, at thirty, finding himself wanted by the police of a half dozen cities of Earth, he had signed up in the black gang of a tramp ethership bound for Mars, knowing he would never return and caring not at all.

At first, he had been riotously happy in the changed life on the new world. There had been plenty of soul-satisfying brawls and plenty of chulco, the fiery Martian distillate. On his many and frequent jobs there were excellent opportunities to rebel against authority, and he had fomented numerous mutinies in which he was always victorious but which usually landed him in one of the malodorous Martian jails for a more or less extended stay.

Then had come that final fracas in the Copau foundry on the bank of Canal Pyramus. Overly optimistic, Luke's new boss had struck out at the chunky, red-headed Earthman during an inconsequential argument and had promptly measured his length in a sand pile as a hamlike fist crashed home in return. They had picked up the foreman and taken him to the infirmary where it was found that his skull was fractured and that he had little chance for life. There were the red police after that, and Luke, single-handed, trounced four of them so soundly and thoroughly that someone sent in a riot call. It had taken a dozen of the reserves to club him into submission at the last.

That was too much for Martian justice. In pronouncing sentence the judge had termed Luke an incurably vicious character and a menace to society such as the planet had never harbored. And Luke, his head swathed in bandages from which his wiry red hair bristled like the comb of a gamecock, had grinned evilly and snarled his defiance.

And so they were taking him to the dread prison camp known as Vulcan's Workshop, a mysterious place of horror and hardship from which no convict had ever returned. Vaguely Luke knew that it was

located on still another world, away off somewhere in the heavens. He had seen the lips of men go white when they were condemned to its reputed torture, had heard them plead for death in preference. Yet its terrors had not awed him; they did not awe him now. He had beaten the law before; he'd beat it again—even in Vulcan's Workshop.

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A KEY rattled in the lock and Luke Fenton leaped to his feet, facing the barred door with feet spread wide and with his massive shoulders hunched expectantly. He could see now, with much blinking and watering of his still aching eyes, and he looked out with sneering disapproval at the three guards in the corridor. They were afraid of him, singly, these Martian cops, even though armed with the deadly dart guns and with shot-loaded billies. So afraid, Luke chuckled inwardly, that they had kept him from the other prisoners throughout the trip, kept him in solitary confinement.

The door was opening and it came to Luke that the ethership was strangely and hollowly silent. The rocket tubes were stilled, that was it, and even the motors that drove the great ventilating fans had been stopped. They had arrived.

No time now to start anything. He would have to submit tamely to whatever they might mete out to him in the way of punishment—until he got the lay of the land. It would require some time to study things out and to plan. But plan he would, and act; they'd never hold him here until he died of whatever it was that killed men quickly in Vulcan's Workshop. Not Luke Fenton.

Sullenly docile, he was prodded forward to the air-lock. A draft of hot fetid air swept through the corridor, carrying with it the forewarning of

unspeakable things to come. And a shriek of mortal terror wafted in from outside by the stinking breeze, told of some poor devil already demoralized. The thick muscles of Luke's biceps tightened to hard knots under his black prison jacket.

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THEY were outside then and Luke essayed a deep breath, a breath that was chokingly acrid in his throat.

"Waugh!" he coughed, and spat. One of the guards laughed.

Any foul epithet that might have formed on Fenton's lips was forgotten in the sight that met his eyes. A barren and rugged terrain stretched out from the landing stage, a land utterly desolate of vegetation and incapable of supporting life. Pockmarked with craters and seamed with yawning fissures from which dense vapors curled, it was seemingly devoid of habitation. And the scene was visible only in the lurid half light of flame-shot mists that hung low over all. In the all too near distance, awesomely vast and ruddy columns of fire rose and fell with monotonous regularity. For the first time, Luke experienced something of the superstitious fear exhibited by even the most hardened criminals when faced with a term at Vulcan's Workshop. That term, to them, meant horror and misery, torture and swift death. And he, too, was ready to believe it now.

He was prodded down an incline that led from the landing stage to the rocks below. The guards from the ethership, he saw, remained behind on the platform and there were new guards awaiting him below. Husky fellows, these were, in strange bulky clothing and armed with the highest powered dart guns. The other prisoners from the vessel were already down there, a huddled and frightened mass—a

squashed pile, almost—silent now and watchful of their jailers.

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'COME on, show some speed, tough guy!" a guard yelled from the foot of the runway. "Think this is a reception?"

Another of the guards guffawed hoarsely, and Luke choked back the blasting retort that rose in his throat. Plenty of time yet before he'd be ready to make things hot for those birds.

The runway, he observed, was a strip of yielding metal that glowed faintly with an unnatural greenish light. He was nearing its lower end when the siren of the ethership shrieked and he heard the clang of the outer door of its air-lock as it swung to its seat.

Then he stepped out to the smooth stone slab on which the nearest of the guards was standing. Immediately it was as if a tremendous weight was flung upon him, bearing him down until his knees buckled beneath him. He was rooted to the spot by an enormous force which dragged at his vitals and weighted his limbs to leaden uselessness. With a mighty effort he raised his head to look up into the grinning yellow face of the guard, and his thick neck muscles were taut gnarled ridges under the strain.

"Damn your hide!" he howled. "It's a trick. I'll break you in two for this, you slob!"

His huge biceps tensed and his fists came up. But they came up slowly and ineffectually, ponderous things he could scarcely lift. A great roaring of rocket tubes was in his ears then, and the ethership screamed off through the red mists while he dabbed futilely at the leering yellow face. And vile curses rasped from between his set teeth



at the laughter of the guards.

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LUKE FENTON never had taken the trouble to learn or he would have known something about this planet Vulcan on which he was a prisoner. As far back as 1859, by Earth chronology, its existence within the orbit of Mercury had been reported by one Lescarbault, a French physician. But other astronomers had failed to confirm, in fact had ridiculed his discovery, and it was not until some years after the establishing of interplanetary travel in the first decade of the twenty-first century that the body was definitely located.

Vulcan, the smallest and innermost of the planets, circles the sun with great rapidity at a mean distance of twenty million miles. Its periods of rotation and revolution are equal, so that it always presents the same face toward the solar system's great center of heat and light—for which reason one side is terrifically hot and the other, that facing into outer space, unbearably cold.

There is no life native to the body, and mankind has found it possible to exist only in the narrow belt immediately on the dark side of the terminator, the line of demarcation between night and day. Here there are the dense vapors, illuminated perpetually by refracted light from the daylight side and by the internal fires of the planet itself, fires which erupt at regular intervals through many fissures and craters. And it is only under greatest hardship that man can exist even here, what with the noxious gases and the extremes of heat and cold to which his body is subjected. There is no natural source of water or of food, so these essentials must of necessity be conveyed from Mars or Earth by ethership.

In spite of all this, man has persisted in establishing himself in the vapor belt of Vulcan for the sake of wresting from the rocky soil its vast deposits of rare ores, and a great number of mining operations are continually in progress. All of these are commercial projects and are worked by adventurous seekers of fortune, save only the penal colony known as Vulcan's Workshop: But no Terrestrial or Martian, however greedy for riches, would dare to remain longer than two lunar months, which is the average time limit of human endurance. Only the condemned remain, and these remain to die.

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**T**HOUGH hardly more than two hundred miles in diameter, Vulcan is possessed of a surface gravity almost six times greater than that on Earth. This is due to the planet's core of neutronium, the densest known substance of the universe, a little understood concentration of matter whose atoms comprise only nuclei from which all negative electrons have been stripped by some stupendous cataclysm of nature.

And so it was that Luke Fenton, uninsulated from the tremendous gravity pull when he stepped from the charged metal of the runway, was struggling against his own bodily weight, suddenly increased to more than twelve hundred pounds.

Doggedly, the Earthman pitted his mighty sinews against the force he could not understand. Here was an intangible thing, yet it was a power that challenged his own brute strength, and he exerted himself to the limit in accepting the challenge. With legs spread wide and with sweat oozing from every pore, he heaved himself erect, straightening knees and spine and standing there firmly on his two feet.

"He's carrying it!" came the husky whisper of a guard. "This bird *is* tough."

Craftily, Luke bared his white, even teeth in a good-humored grin. He had seen what they were doing with the other prisoners, fitting them one by one with the strange bulky breeches—garments that gave forth a faint greenish glow like that of the runway. And each of the men, so attired, was enabled somehow to get to his feet easily and walk about as if unhampered by the force which had flattened him to the rocks and which still held Luke's straining body in its grip.

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THE yellow-skinned guard, a Terrestrial of Asiatic origin, was solemnly engaged now in lacing the slitted legs of a similar garment to Luke's rigid nether limbs. Yet there was no cessation of that awful weight when the thing was done. The guard stepped back and leered wickedly. He had slung his dart gun over his shoulder and now produced a slender black tube which he leveled at Luke's midsection.

"You walk now, Fenton," he snarled.

The Earthman rose upward as if he would leave the ground. Two or three inches seemed added to his stature, and his muscles trembled from the sudden release. He stepped a pace forward.

Then a light beam flashed forth from the black tube and Luke sagged down with an astonished oath squeezed grunting from his throat. The swift renewal of the inexplicable force had caught him off balance and he dropped ignominiously to his knees.

"Ha!" gloated the Oriental. "It is thus we control the tough ones,

Fenton. I've given you a warning; now get up—and march!"

On the last word came blessed release and the return of Luke's strength. He marched, meekly falling in with the file of new prisoners. He even smiled through the red stubble of his beard. But black hatred was in his heart, and renewed determination that he'd get away from this place somehow—alive.

Time would show him the way.

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FENTON'S slow but retentive mind absorbed many things during the succeeding few days. There was neither day nor night in this hellish place—only the flame-lit mists; but they had clocks like those of Earth, and you worked fourteen hours on the slope or in the smelter and had the rest of each so-called day of twenty-four hours in which to eat and sleep.

The food was coarse, but there was plenty of it. There was only water to drink, lukewarm stinking stuff, doled out sparingly in rusty tin cups. And, during the sleeping periods, you were required to take off the gravity-insulated garments and sleep in huts with insulated floor coverings. The charged floor, of course, allowed you to sleep without being smashed flat on the uncomfortable cots. But they had you safe in these sleeping huts; they took away your clothes and you couldn't step out of the door without taking on the weight of a half a dozen men.

The Workshop itself was in a vast excavation from whose slopes a silvery-veined ore was being removed. There were the blast furnace and reduction plant on the one side and the convicts' huts and more

pretentious houses of the guards on the other. And the choking mists, and the lurid flame behind. The stifling heat, Luke learned, too, that every ninth day, with what they called the libration of Vulcan, there came an equal period of raw and biting cold to replace the heat. As bad or worse, that would be.

There were perhaps three hundred prisoners here, Luke guessed, and a guard allotted to each squad of fifteen men. Not many guards for so large a number of convicts—but enough. The weird gravity of Vulcan had taken care of that, and the flashlight things they always carried—queer lights that would instantly neutralize the insulating property of his clothing and render a man helpless.

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LUKE was working high up on the slope, with rock drill and pick. The group to which he had been assigned was composed entirely of new prisoners, mostly white men, but with a few blacks and one coppery-skinned drylander of Mars. Whimpering, hopeless creatures, all of them; not worth his notice. All day he labored without speaking to any of them and the quantities of ore he removed gave mute evidence of his tireless vigor. If Kulan, the giant Martian guard, took any notice of it he gave no sign.

During the sleeping period, which they persisted in calling night, things were different. No guards were needed in the escape-proof huts and there was some surreptitious fraternizing among the prisoners. As long as they made no undue noise, they were left to their own devices. But for the most part they went to sleep heavily and wordlessly as soon as they flung into their bunks. A broken-spirited lot.

Luke saw men suffering from some horrible malady that made them cough and scream and bleed from nose and mouth. Old-timers, these were, men who had survived for as many as three of four months. He saw them, in their agony, beg the guards for merciful death; heard the brutal laughter of their tormentors. Only when they were no longer able to rise from their bunks were they put out of their misery by one of the singing darts from the senior guard's gun.

Novak had it, this malady known as X.C.—Novak, the scar-faced, yellow-fanged rat who occupied the bunk beneath Luke's and who talked to him in hoarse whispers long after the others had gone to sleep. It was from Novak that Luke was learning, and the knowledge he gained by listening to the doomed man served only to intensify the flame of hate that smoldered deep in his barrel-like chest.

After three red-lit days of grueling labor and three similarly red-lit nights of listening to Novak, he reached the grudging conclusion that escape from this place was impossible. With this conviction there came to him a deeper bitterness and the resolve that he, Luke Fenton, would have his revenge before he went the way of the rest.

Perhaps the law had him for keeps this time—it certainly seemed so; but he'd leave his mark on its representatives yet.

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**A**T inspection preceding the next labor period, Luke began doing things.

The prisoners were lined up and the guards were parading the line, reassigning them to new working squads, which were shifted and rearranged every third day. Kulan, the big Martian, selected Luke.

"You, Fenton," he snapped, "ten paces forward."

Luke grinned but made no move.

Amazed, the guard stepped closer. "You heard me!" he roared. "I'm keepin' you in my squad, tough guy."

A ripple of astonished comment ran along the line and the other guards bellowed for silence. Kulan fingered the black tube of his neutro-beam and his broad face was chalky white.

Luke advanced two paces, still grinning. And he looked up sneeringly into the grim face that was a foot above his own.

"That's right, you big ape," he grated, "you ain't man enough to fight the way men fight. Gotta use dart guns, or gravity."

It was sheer baiting of the big Martian. Fenton was shrewd and he knew the fellow's kind, quick to resent insult and prouder of their physical size and prowess than of any other possession. He saw the flush that rose to replace the guard's pallor, saw the huge lithe body go tense. Laughing derisively, he completed his ten paces with leisurely aplomb.

Speechless with rage, Kulan stood rigid. Furtive boos and a few hoarse cheers came from somewhere in the long line of convicts, and Luke saw several men flattened to the ground by swift darting neutro-beams.

And then the head guard came running from the small bastion. "What the hell?" he demanded of Kulan. "Any trouble?"

Kulan saluted, and his eyes were narrow slits. "No sir," he returned stiffly, "no trouble."

Eyeing Luke suspiciously, the senior guard grunted, then moved on along the line. And the work of reallocating squads went on.

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IT was exactly as Fenton had expected. This Kulan, a head over him in stature and broad in proportion, was sure in his mind that he could handle the red-headed Earthman without resort to weapons. And the taunt as to his physical ability had struck home. In some way that guard would maneuver matters so the encounter could come about. Besides, he would endeavor to keep Luke in his squad where he would be able to drive him to the utmost. The guards, Novak had said, were on the job only a month when they were replaced by fresh recruits—and their pay was based on the productivity of the squads they commanded. Kulan had seen that the Earthman was a real sapper; worth three of the others. And he'd try to keep it so.

That working period was a highly gratifying one to Luke. With the rankling hatred concentrated and directed at Kulan, he was positively gleeful. And yet he was content to bide his time. He swung his pick and wielded his rock drill with joyful abandon, so that three men were kept busy loading the ore he removed.

Kulan, he saw with satisfaction, was sullen and watchful. But no word passed between the two. And the Earthman knew he had planted a seed that was bound to sprout and grow until it bore fruit.

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AT the midday mess it happened. The shifting of men had brought Novak in the same squad with Luke and they came in to sit at the



long table together. Kulan eyed them narrowly from the head of the board.

"Say," Novak whispered, "yuh got under Kuley's skin, know it? He'll run yuh ragged."

"Yes?" Luke looked up at the guard, saw he was scowling darkly in their direction, and grinned evilly. "I'll run him, you mean. I'll bust him in two if I get my hands on him."

"Yuh ain't got a chance, I tell yuh. I seen a guy once, take a poke at a guard, and what they done to him was plenty. They——"

With that, the wasted body of Novak bent double and he dropped to the ground screaming. Blood gushed from his nostrils. Luke had seen the same thing happen to several others and he knew what to expect. It was all over for Novak, or nearly over.

Kulan came running and turned the stricken man face up.

"You'll last another period," he snarled. "Get up and eat."

He yanked Novak to his feet and shook him as he would a sack of meal. The sick man moaned and begged, his head rolling from side to side and his eyes filmed with pain.

"Let me have it," he whimpered. "I'm done, I tell yuh Kuley. Get Gannett, if yuh don't believe me."

Kulan slapped him heavily with the flat of his massive hand. "You'll work another period, sewer rat, if I have to prop you up!"

Then Luke Fenton took a chance. He didn't care particularly for Novak, nor was he overly concerned by what might happen to him. But this gave him an excuse, an opening.

He hooked his thick fingers in the collar of Kulan's jacket and twisted until the big Martian loosed Novak and whirled around. Then Luke drove a hard fist to his jaw—a pulled punch so as not to betray his real strength. Nevertheless it set the guard back on his heels and split the taut skin where it landed.

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PANDEMONIUM broke loose in the mess hall. Gannett, the senior guard, came bellowing down the aisle, and the squad guards were on their feet in an instant, neutro-tubes and dart guns ready. The uproar of the prisoners died down.

Kulan shook his shaggy head and crouched low as he circled the Earthman. Murder was in his heart, and the urge to break this tough guy Fenton with his bare hands. But Gannett was between them.

"Hell's bells!" he yelled. "What goes on here?"

Then he saw Novak—and heard him. Novak was writhing on the ground, begging for death. And the chief guard's dart gun twanged as its needlelike missile sped forth and drove into the sick man's breast where it sang its shrill song of vibratory dissolution.

In the twinkling of an eye where Novak had lain was only the dust of complete disintegration and a few scintillating, dancing light flecks that swiftly snuffed out. A speedy and merciful end.

In the silence that followed, Gannett turned on Kulan. "Why didn't you send for me?" he demanded.

The guard, white with rage, indicated Luke.

"So—the tough guy Fenton again. Can't you handle him?"

Kulan's yellow eyes flashed fire. "Sure I can; I will. But I want your permission, sir. With my hands."

"No,"—flatly. And then Gannett whirled to look over the mess tables, whence a few scattered hisses had arisen.

His gaze was solemn when he returned it to Kulan. Swiftly his black eyes measured the Martian's giant body, and then they swung to Luke. The comparison evidently pleased him, for he changed his mind.

"On second thought, yes," he said to Kulan. "It'll be good for discipline. Only don't disable him; he's too valuable a worker."

Luke concealed his unholy glee; stood glowering savagely. "In fair fight?" he put in.

"In fair fight," sneered Gannett. He took personal charge of Kulan's weapons. "All right, you," he yelled then to the mess, "you can watch this. But if there's a sound or a move from any one of you there'll be the neutro-broadcast and full gravity for an hour for the whole flea-bitten gang of you."

He drew back, motioning Luke and Kulan to an open space nearby. There was not the slightest doubt in his mind as to the outcome, for the Martian towered over his stocky opponent and was fully fifty pounds heavier. This irregular procedure would put a stop to some of the open homage paid to this reputed tough guy by the prisoners, and to the restlessness among them which his coming had occasioned.

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THEY fought instantly and with silent deadliness of purpose, these two. Luke drove in two terrible blows to the big Martian's body in the split-second before they closed, breathtaking punches that rocked Kulan yet did not slow him up in the least. And then the tangle of arms and legs and bodies of the two was so swift moving and violent that the watchers could not follow them.

Now they were up, slugging, clinching; now down, rolling over and over, straining and tearing at each other like beasts of the jungle. Once, breaking free, Luke was seen to batter Kulan's face to a bloody mass with swift, hammering fists that thudded too rapidly to count. And then the Martian had flung him to the rocky ground so heavily that it seemed certain the Earthman's end had come. But such was not the case, for there was a flailing scramble and Luke Fenton rose up with the great body of Kulan across his shoulders. He spread his legs wide and heaved mightily.

The Martian guard kicked and squirmed, lashing out with his huge fists at the squarely-built and squarely-planted body of the Earthman below him. But to no avail. Grasping a shoulder and a thigh, Fenton straightened his thick arms and Kulan was hoisted aloft. Amazingly then, the madly struggling guard was flung out and away to land with a sickening thud, smashed and crumpled on the rocks.

Luke stood swaying on those spreadeagled legs and his lungs were near bursting from the exertion in the noxious atmosphere. "There you are, Gannett," he howled through swollen lips. "That fair enough for you?"

In the ominous silence a cracked voice yelled: "Attaboy Fenton!"

Wild disorder followed. Immediately there was the raucous call of the general alarm siren and a flashing light from the bastion that paled the

red mists to a sickly, luminous pink. Full gravity coming down with crushing force on the hapless prisoners.

Luke, as he was flattened, gasping painfully under the enormous pressure, saw that Gannett and the rest of the guards were not affected by the neutro-broadcast. They stood erect and moved freely among the prisoners who sprawled everywhere in grotesque squashed heaps. Queer. There was no way of beating the authorities at this game.

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GANNETT transferred Luke to the dreaded sealed cell in the reduction plant, a room spoken of in hushed whispers by the convicts, and in which it was reported an inmate suffered indescribable tortures for the better part of three weeks. Then he died in horrible misery, for one could not survive longer than that.

Kulan had not been killed. He would recover, but was pretty well smashed up, with a fractured hip and several broken ribs, one of which had punctured a lung. It would be necessary to return him to Mars on the next ethership, due in two days. Strangely, the news brought Luke no great amount of satisfaction.

When they locked him up in the sealed cell for his first period of labor he saw there was only one other occupant. A tall lanky Earthman with narrow aristocratic features and keen gray eyes. He was perhaps forty-five, slightly stooped, and with thin graying hair. Luke had seen him several times at mess and had contemptuously classed him as a highbrow. Fuller, his name was.

This was a small room where several slender chutes brought down

tumbling crystals of a silvery salt from somewhere above, emptying it into glass containers that stood in endless rows in wooden racks. You filled these containers with the salt, then sealed them in lead tubes and packed them for shipment. There was a faint pungent odor in the air of the room, a new smell that widened Luke's nostrils and caught at his throat and lungs.

In this place you were watched by a guard who came regularly each half hour and spied on you through a peephole.

Child's play, the work in the sealed cell. Luke went at it half-heartedly and he spoke no word to Fuller after the heavy door had closed them in. After ten minutes of silence he caught himself watching his companion furtively.

What was there about Fuller that marked him as superior to Luke and the rest of the convicts? A good gust of wind would blow the man away; a woman might easily beat him in a rough and tumble. Yet this man had something which unmistakably proclaimed greatness, the same something that gave authority and power to the smart guys of Earth and Mars. Brains—book-learning! Luke snorted.

Fuller was looking at him with calmly appraising gaze. Luke scowled darkly, but the keen eyes that measured him did not waver.

"You're a fool, Fenton," came from the thin lips.

"What!" Luke advanced threateningly.

"I repeat: you are a fool." Still the gray eyes were unwavering.

"Why, you—you——" Spasmodically Luke's fingers closed down on the spare shoulder with crushing force.

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BY not so much as the flicker of an eyelash did Fuller betray the pain that must have come with that grip. He did not even wince, but swiftly lashed out with a bony fist, raking Luke's cheek with sharp knuckles. The blow stung, but was utterly futile. With a single cuff Luke could send the man sprawling; with a single wrench of his powerful hands, snap his spine. Yet he did neither, and the impulse to laugh coarsely died in his throat. Here was courage of a kind he never had encountered; here a man in whose bright eyes fearlessness and defiance mingled with a cool disdain that brought the first real feeling of inferiority Luke ever had experienced.

He relaxed his grip of Fuller's shoulder and his big hands fell loosely at his sides. It was that action which saved Fenton. He did not know it at the time, nor would he have believed it. But he was to remember many times and finally to realize it, though he never fully understood.

"That's better," breathed Fuller. And the ghost of a smile crinkled the corner of his mouth.

At the old man's warning Luke returned to his own work bench and was industriously engaged when the guard's eye showed at the peephole. Then the eye was gone and he grinned over at Fuller.

"How long you been in here?" he ventured.

"Five days in the sealed cell; ten altogether in the Workshop."

Luke pondered this. "How'd you get in the cell?"

"Same way you did—I struck a guard."

"No!" marveled Luke. "Mean to tell me you——"

"I had a reason to get in here," Fuller broke in mildly.

"You—you *wanted* to get in?" Luke was incredulous.

"I did."

"My God, you ain't crazy, are you—wantin' to get yourself killed off quicker?"

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**N**O, that isn't it," Fuller explained patiently. "I've a plan to escape and only by taking the chance of spending some time here could I obtain access to the necessary materials. Fenton, I'm a scientist and I know——"

"Escape!" Luke snorted. "You *are* crazy. Where you goin' to go?"

"Listen, Fenton." The other dropped his voice. "I'm not doing this blindly, I have friends outside. And you can help me. You can get away yourself, alive. I called you a fool and by that I meant that you have relied too much on brute force in your lifetime and had not sense enough to realize that this brought only trouble. Combine your brawn with my brains, now, and do as I say—if you will I promise you freedom. Will you do it, or do you want to keep on being a fool?"

Luke bristled, but the earnestness of that steady gaze served to check his rising temper. "I still think you're nuts," he growled, "but hell, I ain't fool enough to pass up any kind of chance of gettin' outa here. Gimme the dope."

Fuller coughed slightly and a fleck of red-tinged foam appeared at his lips. "It'll have to be to-day," he whispered. "One more day in this



place and it'll be too late for me."

X.C.! Luke stared, horrified. Fuller had it already and didn't know it. Poor devil; he was a goner before he started this crazy break of his. Strangely, Luke was deeply concerned. It was a new experience, this feeling of compassion for a fellow man.

"To-day!" he grunted. "You ain't figurin' on gettin' out to-day?"

"Positively—it must be to-day. I'll explain."

---

MUCH of what followed was unintelligible to Luke Fenton, but he absorbed enough of the scientist's explanation to understand that his plan was not impossible of realization. He waxed enthusiastic.

Tom Fuller was vague concerning his own past, but Luke gathered that a political crime had been responsible for his sentence to the Workshop. There was much bitterness in the scientist's refusal to dwell on this point. This, too, Luke was able to understand. The bond between them strengthened.

"It's like this," Fuller told him: "these suits which enable us to move about comfortably in Vulcan's gravity are really quite simple in their functioning. A maze of fine wires is woven into the fabric, and these wires are charged with anti-gravity energies from tiny capsules which are inserted under the belt of the garment. The capsules are really miniature atomic generators and are replaced with fresh ones each night during the sleeping period, since the initial charge lasts only eighteen hours. The generated energies neutralize more than eighty percent of the effect of gravity and our weight thus becomes approximately the same as it is on Earth. Such garments are worn by

all prospectors and other visitors to Vulcan."

"How come the neutro-beams?" asked Luke.

They are used only here in the Workshop and they operate the same as the neutro-broadcast from the bastion, the only difference being that the broadcast blankets an area of about two miles in all directions. In both cases vibratory ether waves are sent out and these are of such frequency and wave form as to neutralize the anti-gravity energies originating in our capsules. They render our suits useless, but those of the guards are provided with insulating coverings which block off the waves and thus permit their own garments to function even when the neutro-broadcast is in operation."

"Smart guys," commented Luke. "Too smart. How the devil we gonna get away, then? They'll send out the alarm and——"

"Ah, that is where we fool them, Fenton. With the radium."

"Radium!"

---

YES, didn't you know? This ore we mine here contains a higher percentage of that valuable element than any on Earth or Mars. Its emanations, together with certain atmospheric gases of Vulcan, are what cause X.C.—a swift destruction of tissue in the lungs and other vital organs. And this concentrate"—Fuller waved his hand toward the rows of tubes before him—"is most highly radioactive of all the products of the Workshop. That is why the sealed cell is so very dangerous to work in. But it is this radioactive salt that gives us the means for escape——"

Both men turned quickly to their labors on hearing the footsteps of the guard.

"My suit is already prepared," continued Fuller, when the eye had gone from the peephole. "Now to prepare yours. I discovered that this radioactivity can be used to defeat the purpose of the neutro-rays as well or better than the regular insulation, which, of course, we can not obtain. That is why I wanted to be in the sealed cell for a time. We merely pack a quantity of the radioactive salt around the capsules in the lining of our garments, and the radium emanations continue the excitation of the tiny atomic generators even under the influence of the neutralizing vibrations. Do you follow me?"

"Yes."

Luke did comprehend, even though the technical explanation was beyond his understanding. They would be able to defy this terrible gravity of Vulcan. They could fight unhampered; walk, or run—to meet these mysterious friends of Fuller's. The flashlights and the broadcast would be useless against them.

The lanky scientist outlined the further details of his plan in swift whispers while he worked with the energizing capsule of Luke's garment.

---

ACTUAL escape was surprisingly easy. They waited until the labor period was finished, when Chan Dai, the yellow-skinned guard, came to unlock the door. As agreed, Tom Fuller came out first and Luke held back, dragging his feet and cursing softly to himself.

"What'd you say?" the guard snarled.

Luke grinned disarmingly. "Nothin'," he drawled. Still he hung back, scarcely moving from where he stood just within the door.

"Come on, tough guy, a little speed." Chan Dai reached for him.

And then Luke was upon him. The neutro-beam flashed harmlessly. Luke's big hands moved with lightning swiftness, his left one scooping the guard's dart gun from its shoulder strap and his right closing on the astonished Oriental's wind-pipe. It was the work of only an instant to choke him in unconsciousness and lock him in the sealed cell.

"Quick, the chute!" hissed Fuller. He dived head foremost into a rectangular wooden trough that was used for the disposal of the gangue from a crushing mill above. This chute, Fuller had said, led to the outside at the back of the reduction plant.

Across the passage Luke saw a squad of convicts and two guards emerging from the lift. Then he plunged down the steeply inclined trough after Fuller. As he slid and tumbled into the darkness, he heard the hoarse shouting of the guards.

He landed heavily in the pile of gangue at the base of the chute; then was scrambling and slipping down with an avalanche of the sharp edged stone. At the bottom, he saw that Fuller had already started up the slope of the great pit which enclosed the Workshop. Luke darted after him.

---

THEY were hidden from the bastion by the buildings of the smelter and reduction plant. But the loud yelling of guards back there in the pit gave evidence that word of the escape was being passed along to

Gannett. Before they were halfway up the slope there was the shriek of the alarm siren, and Luke felt his body sag with a sudden increase of weight. Fool that he had been to trust the scrawny scientist!

"It's the broadcast," panted Fuller, beside him. There is some effect, of course. You're probably carrying fifty extra pounds."

"Huh!" Luke hoped it would be no worse.

Fuller slipped into a narrow crevasse that ran slantwise of the slope and extended upward to the rim of the pit. The going was much easier here and they made rapid progress toward the top. Suddenly Luke realized that it was growing very cold; there was a bite to the foul air, and moisture from the red mist was frosting his beard. The liberation of the tiny planet and consequent shifting of the terminator was bringing fridity to Vulcan's Workshop.

They came up out of the crevasse at the top of the pit and Luke could not resist looking back. Every convict in sight was flattened to the ground. They sprawled singly and in heaps, each one a squashed inert thing that would not move again until the neutro-broadcast was discontinued. The guards, confident they would find the escaped prisoners in like condition, were searching the slope below them.

Luke raised Chan Dai's, dart gun to his shoulder.

Fuller struck aside the muzzle of the weapon. "No!" he protested, "No unnecessary killing, Fenton. They're completely fooled, and we'll be well on our way before they know the truth."

Grumbling, Luke drew back from the rim of the excavation.

---

UP here the ground was fairly level, but there were many fissures and small craters which made the footing precarious. The mists were so dense they could see scarcely two hundred feet ahead.

"We'll be lost in the vapors when they finally wake up and come out after us," Fuller said. "And look Fenton, off there to the left are the three columns of fire that mark the rendezvous."

They plunged on through the red mist toward the flaming pillars. Those beacons, even though they subsided at regular intervals, quickly reappeared after each cessation. And their brilliance penetrated the mists with ease at this distance of about two miles. There was no fear of missing their destination.

"Sure your friends'll be there?" Luke asked doubtfully. He was beginning to have some misgivings about the matter—the scientist had been anything but explicit as to who these friends were. And the longer his thoughts dwelt upon the things Fuller had told him the more suspicious he became. Pretty cagey about everything but the actual getting away from the Workshop, Fuller had been.

"Certainly they will; they've been waiting two days." Fuller's tone was impatient and his words came painfully. "You leave that part of it to me, Fenton," he gasped. There was a fleck of blood at his lips.

As the scientist stumbled on through the mists, Luke's doubts increased and he began to lose his respect for the man's intellect and for the cunning which had enabled him to outwit the neutralizing energies used by the guards. After all, he was a weak and puny specimen. They all were, the smart guys who held the people of two worlds in their power by exercising the knowledge they had learned from books. And this one had failed even in that; whatever he might have been, he had run afoul of the law himself and was already a

doomed man. Tricks! This trick of Fuller's had gotten them away, but of what use was it without the brute force necessary to carry on to a successful end?

The brawn Tom had spoken of so slightly was what they needed from this time on, and nothing else would save them. Luke had that brawn; Fuller did not. The scientist slipped and nearly lost his balance at the edge of a fissure, but Luke made no move to help him. It was every man for himself at this stage of the game.

---

**I**NCREASING difficulty came with every step. Now they were sliding and rolling into a deep crater, now scrambling up its steep sides with hands torn and bodies bruised by the jagged boulders. A yawning crevasse opened before them and they were forced to skirt its edge for fully a half mile in the wrong direction before they found a crossing. And the cold was unbelievably intense. Numbed and silent, with their eyes half blinded and lungs seared by the frosty air, they struggled on toward the three pillars of flame.

And still Tom Fuller carried on, though Luke was now in the lead.

They had covered probably half the distance to the flaming columns when shouts arose behind them. The guards were on their trail.

"Can't—find us," Fuller panted. "The mists——"

"Hell, the mists are clearing," Luke snarled. "You ain't so damn smart as you think."

What he said was true. Though there was less light on account of the new angle with the sun farther below the horizon, the red mist was

definitely lighter in color, noticeably less dense. Visibility was good to several hundred yards. Luke turned his head, but could see nothing of their pursuers.

"They can't," Fuller insisted weakly.

Luke, pushed on with renewed vigor, ignoring him, cursing.

And then there came faintly to his ears the twang of a dart gun; the shrill scream of its deadly vibrating missile; a violent blow that flung him headlong.

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LIKE a cat, he bounced to his feet, crouching with Chan Dai's dart gun at his shoulder. A strangely grotesque heap was at his feet—Tom Fuller. Off there in the thinning mist he saw a shadowy figure and he fired at it twice. Whether his darts found their mark he was never to know, for a wall of white swept down suddenly to obscure his vision. Snow! Great massed flakes falling endlessly—the moisture of the mist crystallized and closing in on him to hide him even more safely, than had the mists themselves.

He was on his knees then at Fuller's side. A brilliant flash and a screaming roar over amongst the rocks apprised him of the fact that the guard's dart had gone wide. And yet Fuller was down, moaning with pain. Luke tried to turn him over and found that his body had taken on tremendous weight. He was flattened, crushed to the rocky surface of Vulcan by the full force of its gravity!

"What the devil!" he grunted as he heaved and strained. "What'd they do to you, old man?"



With great effort he succeeded in turning the scientist face up. Then he saw what had happened, and knew in a flash that Fuller had saved him from the singing dart whose energy was making a sizzling puddle of the stones where it had landed. The missile, in passing, had carried away the belt and part of the fabric of Tom's garment—carried away the capsule and the radium that energized it. Made the thing worse than useless. And Fuller had done this for him; he had flung himself upon Luke to shove him out of the line of fire ... risking his own life gladly ... lucky the deadly dart had missed his body, but....

---

YOU go on, Fenton," the scientist was whispering through lips that were blue and stiff. "Leave me here. I'm licked. But you can carry on the work; go to my friends and tell them—everything. Tell them what you saw back there—tell them——"

"Shut up!" Luke's words were softly growled. There was a new and utterly unaccountable huskiness in his voice as he straddled the prone body and locked his strong fingers underneath. "You ain't gonna be left behind," he grunted. "We're goin' on, brother, together."

His back straightened and Fuller was swung clear of the ground. His huge biceps tensed and the scrawny scientist was in the air, up and above the bowed head, then let down gently to rest across the broad shoulders of Luke Fenton. Fuller hung there, bent double by the immense weight of him, crushed to painful contact with the taut muscles that carried the strain.

On Earth, Fuller might have tipped the scales at a scant one hundred and thirty pounds; now his sagging body was a load in excess of seven hundredweight. With that load upon him, and glorying in the

effort it cost, Luke staggered on toward the triple red glow, which, even in the blinding whiteness of the snowfall, marked the location of the columns of fire.

That all feeling had left his limbs in the deep-biting cold meant nothing; that his lungs were near bursting under the terrific strain meant even less. Luke Fenton had found a man. One he would fight for, not against. And, miraculously, he had found himself.

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**A**FTER that there was a blur of interminable torture. Reeling and stumbling, his leg and back muscles shot through with stabbing pain as the frost worked slowly upward, Luke plodded doggedly ahead. An occasional shout came from far behind where the guards still searched the rocky plateau.

Across his great shoulders, Luke's burden was a dead weight, of corpse-like rigidity and stillness. Yet Luke clung to it tenaciously, disposing the drooping leaden limbs as comfortably as possible by the judicious spreading of his own brawny arms.

Fuller, he was sure, had not long to live in any event. X.C. had already progressed to such a point that it was hardly possible he could recover. And yet, these smart guys Luke always had detested—the doctors and surgeons and such—they might be able to do something for the poor devil. Anyway, he determined, he'd get the scientist to his friends dead or alive, and he'd see to it that they treated him right. If they didn't....

The red glow was suddenly very bright and a silvery metallic shape loomed up before him in the whiteness. An ethership! Luke tried to

call out but his bellowing voice was gone; only faint gurgling sounds came from his throat. He pushed forward with a savage summoning of his last ounce of energy and Fuller's weight was that of a mastodon upon him. The curved hull of the vessel was overhead when he slipped and fell to one knee in the thick carpet of snow.

Luke saw them then, a dozen strangers running from the open air-lock of the ship. In uniform, some of them—government officials of Earth and Mars. Damn them, it was a trap!

Knowing vaguely that they had surrounded him, he let Fuller slip from his shoulders and lowered him gently to the snow. Lurching to his feet, he stood swaying above the scientist's body, ready to defend the helpless man against any who came to take him. Defiant curses died in his paralyzed throat as darkness swooped down to blot out all consciousness. His steel-sinewed body, beaten at last, slumped protectingly over the lanky form of his new-found friend.

---

WHEN Luke next saw the light he stared long and hard at immaculate white walls and ceiling that shut him in. A gentle purring was in his ears and he knew he was in an ethership that was under way. He lay weak and helpless beneath snowy covers, on an iron hospital bed.

There were voices in the room, hushed, awed voices, and Luke moved his head painfully to stare across the room. Fuller, he saw, was stretched on another cot, pale and still. And a white-clad nurse was there, bending over him, talking softly to a doctor. The words that passed between them brought enlightenment to Luke—and more. They brought a new elation, and understanding, and hope.

When the doctor and nurse had left, Luke lay for a long time with his thoughts. There was a man—Tom Fuller. Unafraid, as an agent of a special governmental committee investigating prison conditions he had volunteered to get the evidence on Vulcan's Workshop. And he had done it, even though it was almost certain that his own life was to be the price. He had dared the misery and hardship, dared X.C. and the horrible death it brought, that this hellhole of Vulcan might be exposed, that it might be wiped out of existence by government agreement. Vulcan's Workshop, where the gold dust of a certain political clique, brought torture and disease and extinction to hapless prisoners who might otherwise be remade into useful members of society by the use of scientific methods—all this was to be no more.

Fuller had succeeded where many others had failed. And Fuller was not to die. Only one of his lungs had been affected by X.C. and this not too extensively to respond to treatment. Many months of careful attendance would be required, and many more months of convalescence. But Fuller, they were sure, would live, Luke gloated.

From what he had heard, Luke gathered that there was to be no trouble about his own pardon. Oddly enough, this gave him no satisfaction. Something had happened to him—inside. For the first time he realised his debt to society and would have preferred that just sentence be carried out upon him. But not in that place, not in Vulcan's Workshop! Luke shuddered.

---

AND lying there, he swore a mighty oath that the remainder of his life was to be devoted to entirely different pursuits. It was not too late to face about, not too late to learn. If Fuller would help him, he

*would* learn. He had acquired a healthy respect for the book-learning he formerly ridiculed, and he wanted some of it for himself—as much as he could get. His old creed was forgotten, and his bitterness vanished.

"Luke!" At the scientist's husky whisper he turned his head. Fuller was gazing at him with wide, solemn eyes.

"Thanks, Luke," the thin lips murmured.

"Thanks yourself. Where'd we be right now if it wasn't for your radium?"

There was silence as they regarded one another.

"I need you, Luke," Fuller whispered then, "in my laboratory back home. I'll be laid up for a long time, you know, and there's much to be done. Your brawn and my brain—we'll both profit. What do you say to that, Fenton, will you do it?"

Luke grinned. "Will I? Just watch me!"

Then, with a queer lump choking him, Luke looked away. He could think of no words to suit the occasion; he couldn't think at all somehow.

Blissfully, he fell asleep.

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