

GREGORY BENFORD and DAVID BRIN

PARIS CONQUERS ALL

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The second of our War of the Worlds stories is the third story in the issue by a columnist. Gregory Benford collaborated with award-winner David Brin in this tale of yet another writer, Jules Verne, and his encounter with the Martians.

I commence this account with a prosaic stroll at eventide -- a saunter down the avenues of la Ville Lumiere, during which the ordinary swiftly gave way to the extraordinary. I was in Paris to consult with my publisher, as well as to visit old companions and partake of the exquisite cuisine, which my provincial home in Amiens cannot boast. Though I am now a gentleman of advanced age, nearing my 70th year, I am still quite able to favor the savories, and it remains a treat to survey the lovely demoiselles as they exhibit the latest fashions on the boulevards, enticing smitten young men and breaking their hearts at the same time.

I had come to town that day believing -- as did most others -- that there still remained weeks, or days at least, before the alien terror ravaging southern France finally reached the valley of the Seine. Ile de France would be defended at all costs, we were assured. So it came to pass that, tricked by this false complaisance, I was in the capital the very afternoon that the crisis struck.

Paris! It still shone as the most splendid exemplar of our progressive age -- all the more so in that troubled hour, as tense anxiety seemed only to add to the city's loveliness -- shimmering at night with both gas and electric lights, and humming by day with new electric trams, whose marvelous wires crisscrossed above the avenues like gossamer heralds of a new era.

I had begun here long ago as a young attorney, having followed into my father's profession. Yet that same head of our family had also accepted my urge to strike out on a literary road, in the theater and later down expansive voyages of prose. "Drink your fill of Paris, my son!" the good man said, seeing me off from the Nantes railway station. "Devour these wondrous times. Your senses are keen. Share your insights. The world will change because of it."

Without such help and support, would I ever have found within myself the will, the daring, to explore the many pathways of the future, with all their wonders and perils? Ever since the Martian invasion began, I had found myself reflecting on an extraordinary life filled with such good fortune, especially now that all

human luck seemed about to be revoked. Now, with terror looming from the south and west, would it all soon come to nought? All that I had achieved? Everything humanity had accomplished, after so many centuries climbing upward from ignorance?

It was in such an uncharacteristically dour mood that I strolled in the company of M. Beauchamp, a gentleman scientist, that pale afternoon less than an hour before I had my first contact with the horrible Martian machines. Naturally, I had been following the eye-witness accounts which first told of plunging fireballs, striking the Earth with violence that sent gouts of soil and rock spitting upward, like miniature versions of the outburst at Krakatau. These impacts had soon proved to be far more than mere meteoritic phenomena, since there soon emerged, like insects from a subterranean lair, three-legged beings bearing incredible malevolence toward the life of this planet. Riding gigantic tripod mechanisms, these unwelcome guests soon set forth with one sole purpose in mind -- destructive conquest!

The ensuing carnage, the raking fire, the sweeping flames -- none of these horrors had yet reached the fair country above the river Loire . . . not yet. But reports all too vividly told of villages trampled, farmlands seared black, and hordes of refugees cut down as they fled.

Invasion. The word came to mind all too easily remembered. We of northern France knew the pain just twenty-eight years back, when Sedan fell and this sweet land trembled under an attacker's boot. Several Paris quarters still bear scars where Prussian firing squads tore moonlike craters out of plaster walls, mingling there the ochre life blood of communards, royalists and bourgeois alike.

Now Paris trembled before advancing powers so malign that, in contrast, those Prussians of 1870 were like beloved cousins, welcome to town for a picnic!

All of this I pondered while taking leave, with Beauchamp, of the Ecole Militaire, the national military academy, where a briefing had just been given to assembled dignitaries, such as ourselves. From the stone portico we gazed toward the Seine, past the encampment of the Seventeenth Corps of Volunteers, their tents arrayed across trampled grass and smashed flower beds of the ironically named Champ-de-Mars. The meadow of the god of war.

Towering over this scene of intense (and ultimately futile) martial activity stood the tower of M. Eiffel, built for the recent exhibition, that marvelously fashioned testimonial to metal and ingenuity . . . and also target of so much vitriol.

"The public's regard for it may improve with time," I ventured, observing that Beauchamp's gaze lay fixed on the same magnificent spire.

My companion snorted with derision at the curving steel flanks. "An eyesore, of no enduring value," he countered, and for some time we distracted ourselves from more somber thoughts by arguing the relative merits of Eiffel's work, while turning east to walk toward the Sorbonne. Of late, experiments in the

transmission of radio-tension waves had wrought unexpected pragmatic benefits, using the great tower as an antenna. I wagered Beauchamp there would be other advantages, in time.

Alas, even this topic proved no lasting diversion from thoughts of danger to the south. Fresh in our minds were reports from the wine districts. The latest outrage -- that the home of Vouvray was now smashed, trampled and burning. This was my favorite of all the crisp, light vintages--better, even, than a fresh Sancerre. Somehow, that loss seemed to strike home more vividly than dry casualty counts, already climbing to the millions.

"There must be a method!" I proclaimed, as we approached the domed brilliance of Les Invalides. "There has to be a scientific approach to destroying the invaders."

"The military is surely doing its best," Beauchamp said.

"Buffoons!"

"But you heard of their losses. The regiments and divisions decimated --" Beauchamp stuttered. "The army dies for France! For humanity -- of which France is surely the best example."

I turned to face him, aware of an acute paradox -- that the greatest martial mind of all time lay entombed in the domed citadel nearby. Yet even he would have been helpless before a power that was not of this world.

"I do not condemn the army's courage," I assured.

"Then how can you speak --"

"No no! I condemn their lack of imagination!"

"To defeat the incredible takes --"

"Vision!"

Timidly, for he knew my views, he advanced, "I saw in the Match that the British have consulted with the fantasist, Mr. Wells."

To this I could only cock an eye. "He will give them no aid, only imaginings."

"But you just said --"

"Vision is not the same as dreaming."

At that moment the cutting smell of sulfuric acid waited on a breeze from the reducing works near the river. (Even in the most beautiful of cities, rode work has its place.) Beauchamp mistook my expression of disgust for commentary upon the Englishman, Wells.

"He is quite successful. Many compare him to you."

"An unhappy analogy. His stories do not repose on a scientific basis. I make use of physics. He invents."

"In this crisis --"

"I go to the moon in a cannon ball. He goes in an airship, which he constructs of a metal which does away with the law of gravitation. Ça c'est tres joli! -- but show me this metal. Let him produce it!"

Beauchamp blinked. "I quite agree -- but, then, is not our present science woefully inadequate to the task at hand -- defending ourselves against monstrous invaders?"

We resumed our walk. Leaving behind the crowds paying homage at Napoleon's Tomb, we made good progress along rue de Varenne, with the Petite Palais now visible across the river, just ahead.

"We lag technologically behind these foul beings, that I grant. But only by perhaps a century or two."

"Oh surely, more than that! To fly between the worlds --"

"Can be accomplished several ways, all within our comprehension, if not our grasp."

"What of the reports by astronomers of great explosions, seen earlier this year on the surface of the distant roddy planet? They now think these were signs of the Martian invasion fleet being launched. Surely we could not expend such forces!"

I waved away his objection. "Those are nothing more than I have already foreseen in From the Earth to the Moon. which I would remind you I published thirty-three years ago, at the conclusion of the American Civil War."

"You think the observers witnessed the belching of great Martian cannon?"

"Of course! I had to make adjustments, engineering alterations, while designing my moon vessel. The shell could not be of steel, like one of Eiffel's bridges. So I conjectured that the means of making light projectiles of aluminum will come to pass. These are not basic limitations, you see --" I waved them away -
-
"but mere details."

The wind had shifted, and with relief I now drew in a heady breath redolent with the smells of cookery rising from the city of cuisine. Garlic, roasting vegetables, the dark aromas of warming meats -- such a contrast with the terror

which advanced on the city, and on our minds. Along rue St. Grenelle, I glanced into one of the innumerable tiny cafes. Worried faces stared moodily at their reflections in the broad zinc bars, stained by spilled absinthe. Wine coursed down anxious throats. Murmurs floated on the fitful air.

"So the Martians come by cannon, the workhorse of battle," Beauchamp murmured.

"There are other methods," I allowed.

"Your dirigibles?"

"Come come, Beauchamp! You know well that no air permeates the realm between the worlds."

"Then what methods do they employ to maneuver? They fall upon Asia, Africa, the Americans, the deserving British -- all with such control, such intricate planning."

"Rockets! Though perhaps there are flaws in my original cannon ideas --I am aware that passengers would be squashed to jelly by the firing of such a great gun -- nothing similar condemns the use of cylinders of slowly exploding chemicals."

"To steer between planets? Such control!"

"Once the concept is grasped, it is but a matter of ingenuity to bring it to pass. Within a century, Beauchamp, we shall see rockets of our own rise from this ponderous planet, into the heavens. I promise you that!"

"Assuming we survive the fortnight," Beauchamp remarked gloomily. "Not to mention a century."

"To live, we must think. Our thoughts must encompass the entire range of possibility."

I waved my furled umbrella at the sky, sweeping it around and down rue de Rennes, toward the southern eminence of Montparnasse. By chance my gaze followed the pointing tip -- and so it I was among the first to spy one of the Martian machines, like a monstrous insect, cresting that ill-fated hill.

There is something in the human species which abhors oddity, the unnatural. We are double in arms, legs, eyes, ears, even nipples (if I may venture such an indelicate comparison; but remember, I am a man of science at all times). Two-ness is fundamental to us, except when Nature dictates singularity -- we have but one mouth, and one organ of regeneration. Such biological matters are fundamental. Thus, the instantaneous feelings horror at first sight of the three-ness of the invaders -- which was apparent even in the external design of their machinery. I need not explain the revulsion to any denizen of our world. These were alien beings, in the worst sense of the word.

"They have broken through!" I cried. "The front must have collapsed."

Around us crowds now took note of the same dread vision, looming over the sooty Montparnasse railway station. Men began to run, women to wail. Yet, some courageous ones of both sexes ran the other way, to help bolster the city's slim, final bulwark, a line from which rose volleys of crackling rifle fire.

By unspoken assent, Beauchamp and I refrained from joining the general fury. Two old men, wealthier in dignity than physical stamina, we had more to offer with our experience and seasoned minds than with the frail strength of our arms.

"Note the rays," I said dispassionately, as for the first time we witnessed the fearful lashing of that horrid heat, smiting the helpless trains, igniting rail cars and exploding locomotives at a mere touch. I admit I was struggling to hold both reason and resolve, fastening upon details as a drowning man might cling to flotsam.

"Could they be like Hertzian waves?" Beauchamp asked in wavering tones.

We had been excited by the marvelous German discovery, and its early application to experiments in wireless signaling. Still, even I had to blink at Beauchamp's idea -- for the first time envisioning the concentration of such waves into searing beams. "Possibly," I allowed. "Legends say that Archimedes concentrated light to beat back Roman ships, at Syracuse. . . . But the waves Hertz found were meters long, and of less energy than a fly's wingbeat. These --"

I jumped, despite my efforts at self control, as another, much larger machine appeared to the west of the first, towering majestically, also spouting bright red torrents of destruction. It set fires on the far southern horizon, the beam playing over city blocks, much as a cat licks a mouse.

"We shall never defeat such power," Beauchamp said morosely.

"Certainly we do not have much time," I allowed. "But you put my mind into harness, my friend."

Around us people now openly bolted. Carriages rushed past without regard to panicked figures who dashed across the avenues. Horses clopped madly by, whipped by their masters. I stopped to unroll the paper from a Colombian cigar. Such times demand clear thinking. It was up to the higher minds and classes to display character and resolve.

"No, we must seize upon some technology closer to hand," I said. "Not the Hertzian waves, but perhaps something allied . . ."

Beauchamp glanced back at the destructive tripods with lines of worry creasing his brow. "If rifle and cannon prove useless against these marching machines --"

"Then we must apply another science, not mere mechanics."

"Biology? There are the followers of Pasteur, of course." Beauchamp was plainly struggling to stretch his mind. "If we could somehow get these Martians -- has anyone yet seen one? -- to drink contaminated milk . . . "

I had to chuckle. "Too literal, my friend. Would you serve it to them on a silver plate?"

Beauchamp drew himself up. "I was only attempting --"

"No matter. The point is now moot. Can you not see where the second machine stands, atop the very site of Pasteur's now ruined Institute?"

Although biology is a lesser cousin in the family of science, I nevertheless imagined with chagrin those fine collections of bottled specimens, now kicked and scattered under splayed tripod feet, tossing the remnants to the swirling winds. No help there, alas.

"Nor are the ideas of the Englishman, Darwin, of much use, for they take thousands of years to have force. No, I have in mind physics, but rather more recent work."

I had been speaking from the airy spot wherein my head makes words before thought has yet taken form, as often happens when a concept lumbers upward from the mind's depths, coming, coming . . .

Around us lay the most beautiful city in the world, already flickering with gas lamps, lining the prominent avenues. Might that serve as inspiration? Poison gas? But no, the Martians had already proved invulnerable to even the foul clouds which the Army tried to deploy.

But then what? I have always believed that the solution to tomorrow's problems usually lies in plain sight, in materials and concepts already at hand -- just as the essential ideas for submarines, airships, and even interplanetary craft, have been apparent for decades. The trick lies in formulating the right combinations.

As that thought coursed through my mind, a noise erupted so cacophonously as to over-ride even the commotion further south. A rattling roar (accompanied by the plaint of already-frightened horses) approached from the opposite direction! Even as I turned round toward the river, I recognized the clatter of an explosive-combustion engine, of the type invented not long ago by Herr Benz, now propelling a wagon bearing several men and a pile of glittering apparatus! At once I observed one unforeseen advantage of horseless transportation -- to allow human beings to ride toward danger that no horse on Earth would ever approach.

The hissing contraption ground to a halt not far from Beauchamp and me. Then a shout burst forth in that most penetrating of human accents --one habituated

to
open spaces and vast expanses.

"Come on, you Gol-durned piece of junk! Fire on up, or I'll turn ya into scrap b'fore the Martians do!"

The speaker was dressed as a workman, with bandoliers of tools arrayed across his broad, sturdy frame. A shock of reddish hair escaped under the rim of a large, curve-brimmed hat, of the type affected by the troupe of Buffalo Bill, when that showman's carnival was the sensation of Europe, some years back.

"Come now, Ernst," answered the man beside him, in a voice both more cultured and sardonic. "There's no purpose in berating a machine. Perhaps we are already
near enough to acquire the data we seek."

An uneasy alliance of distant cousins, I realized. Although I have always admired users of the English language for their boundless ingenuity, it can be hard to see the countrymen of Edgar Allan Poe as related to those of Walter Scott.

"What do you say, Fraunhoffer?" asked the Englishman of a third gentleman with the portly bearing of one who dearly loves his schnitzel, now peering through an
array of lenses toward the battling tripods. "Can you get a good reading from here?"

"Bah!" The bald-pated German cursed. "From ze exploding buildings and fiery desolation, I get plenty of lines, those typical of combustion. But ze rays zemselves are absurd. Utterly absurd!"

I surmised that here were scientists at work, even as I had prescribed in my discourse to Beauchamp, doing the labor of sixty battalions. In such efforts by
luminous minds lay our entire hope.

"Absurd how?" A fourth head emerged, that of a dark young man, wearing objects over his ears that resembled muffs for protection against cold weather, only these were made of wood, linked by black cord to a machine covered with dials. I
at once recognized miniature speaker-phones, for presenting faint sounds directly to the ears. The young man's accent was Italian, and curiously calm. "What is absurd about the spectrum of-a the rays, Professor?"

"There iss no spectrum!" the German expounded. "My device shows just the one hue
of red light we see with our naked eyes, when the rays lash destructive force. There are no absorption lines, just a single hue of brilliant red!"

The Italian pursed his lips in thought. "One frequency, perhaps. . . ?"

"If you insist on comparing light to your vulgar Hertzlan waves --"

So entranced was I by the discussion that I was almost knocked down by Beauchamp's frantic effort to gain my attention. I knew just one thing could bring him to behave so -- the Martians must nearly be upon us! With this supposition in mind, I turned, expecting to see a disk-like foot of a

leviathan
preparing to crush us.

Instead, Beauchamp, white as a ghost, stammered and pointed with a palsied hand.

"Verne, regardez!"

To my amazement, the invaders had abruptly changed course, swerving from the direct route to the Seine. Instead they turned left and were stomping swiftly toward the part of town that Beauchamp and I had only just left, crushing buildings to dust as they hurried ahead. At the time, we shared a single thought. The commanders of the battle tripods must have spied the military camp on the Champ-de-Mars. Or else they planned to wipe out the nearby military academy. It even crossed my mind that their objective might be the tomb of humanity's greatest general, to destroy that shrine, and with it our spirit to resist.

But no. Only much later did we realize the truth.

Here in Paris, our vanquishers suddenly had another kind of conquest in mind.

Flames spread as evening fell. Although the Martian rampage seemed to have slackened somewhat, the city's attitude of sang-froid was melting rapidly into frothy panic. The broad boulevards that Baron Haussmann gave the city during the Second Empire proved their worth as aisles of escape while buildings burned.

But not for all. By nightfall, Beauchamp and I found ourselves across the river at the new army headquarters, in the tree-lined Tuileries, just west of the Louvre --as if the military had decided to make its last stand in front of the great museum, delaying the invaders in order to give the curators more time to rescue treasures.

A great crowd surrounded a cage wherein, some said, several captured Martians cowered. Beauchamp rushed off to see, but I had learned to heed my subconscious -- (to use the terminology of the Austrian alienist, Freud) -- and wandered about the camp instead. Letting the spectacle play in my mind.

While a colonel with a sooty face drew arrows on a map, I found my gaze wandering to the trampled gardens, backlit by fire, and wondered what the painter, Camille Pissaro, would make of such a hellish scene. Just a month ago I had visited his apartment at 2.04 rue de Rivoli, to see a series of impressions he had undertaken to portray the peaceful Tuileries. Now, what a parody fate had decreed for these same gardens!

The colonel had explained that invader tripods came in two sizes, with the larger ones appearing to control the smaller. There were many of the latter kind, still rampaging the city suburbs, but all three of the great ones reported to be in Northern France had converged on the same site before nightfall, trampling back and forth across the Champ-de-Mars, presenting a series of

strange behaviors that as yet had no lucid explanation. I did not need a military expert to tell me what I had seen with my own eyes . . . three titanic metal leviathans, twisting arid capering as if in a languid dance, round and round the same object of their fierce attention.

I wandered away from the briefing, and peered for a while at the foreign scientists. The Italian and the German were arguing vehemently, invoking the name of the physicist Boltzmann, with his heretical theories of "atomic matter," trying to explain why the heat ray of the aliens should emerge as just a single, narrow color. But the discussion was over my head, so I moved on.

The American and the Englishman seemed more pragmatic, consulting with French munitions experts about a type of fulminating bomb that might be attached to a Martian machine's kneecap -- if only some way could be found to carry it there . . . and to get the machine to stand still while it was attached. I doubted any explosive device devised overnight would suffice, since artillery had been next to useless, but I envied the adventure of the volunteer bomber, whoever it might be.

Adventure. I had spent decades writing about it, nearly always in the form of extraordinary voyages, with my heroes bound intrepidly across foaming seas, or under the waves, or over icecaps, or to the shimmering moon. Millions read my works to escape the tedium of daily life, and perhaps to catch a glimpse of the near future. Only now the future had arrived, containing enough excitement for anybody. We did not have to seek adventure far away. It had come to us. Right to our homes.

The crowd had ebbed somewhat, in the area surrounding the prisoners' enclosure, so I went over to join Beauchamp. He had been standing there for hours, staring at the captives, our only prizes in this horrid war, lying caged within stout iron bars, a dismal set of figures, limp yet atrociously fascinating.

"Have they any new ideas?" Beauchamp asked in a distracted voice, while keeping his eyes focused toward the four beings from Mars. "What new plans from the military geniuses?"

The last was spoken with thick sarcasm. His attitude had changed since noon, most clearly.

"They think the key is to be found in the master tripods, those that are right now stomping flat the region near Eiffel's Spire. Never have all three of the Master Machines been seen so close together. Experts suggest that the Martians may use movement to communicate. The dance they are now performing may represent a conference on strategy. Perhaps they are planning their next move, now that

they have taken Paris."

Beauchamp grunted. It seemed to make as much sense as any other proposal to explain the aliens' sudden, strange behavior. While smaller tripods roamed about, dealing destruction almost randomly, the three great ones hopped and flopped like horons in a marsh, gesticulating wildly with their flailing legs, all this in marked contrast to the demure solidity of Eiffel's needle.

For a time we stared in silence at the prisoners, whose projectile had hurtled across unimaginable space only to shatter when it struck an unlucky hard place on the Earth, shattering open and leaving its occupants helpless, at our mercy.

Locked inside iron, these captives did not look impressive, as if this world weighed heavy on their limbs. Or had another kind of languor invaded their beings. A depression of spirits, perhaps?

"I have pondered one thing, while standing here," Beauchamp mumbled. "An oddity about these creatures. We had been told that everything about them came in threes . . . note the trio of legs, and of arms, and of eyes --"

"As we have seen in newspaper sketches, for weeks," I replied.

"Indeed: But regard the one in the center. The one around which the others arrayed themselves, as if protectively . . . or perhaps in mutual competition.?"

I saw the one he meant. Slightly larger than the rest, with a narrower aspect in the region of the conical head.

"Yes, it does seem different, somehow . . . but I don't see --"

I stopped, for just then I did see . . . and thoughts passed through my brain in a pell mell rush.

"Its legs and arms . . . there are four! Its symmetry is different! Can it be of another race ? A servant species, perhaps? Or something superior? Or else . . .
;"

My next cry was of excited elation.

"Beauchamp! The master tripods . . . I believe I know what they are doing!

"Moreover, I believe this beckons us with opportunity."

The bridges were sheer madness, while the river flowing underneath seemed chock-a-block with corpses. It took our party two hours to fight our way against the stream of panicky human refugees, before the makeshift expedition finally arrived close enough to make out how the dance progressed.

"They are closer, are they not.?" I asked the lieutenant assigned to guide us. "Have they been spiraling inward at a steady rate?"

The young officer nodded. "Oui, Monsieur. It now seems clear that all three are converging on Eiffel's Tower. Though for what reason, and whether it will continue --"

I laughed, remembering the thought that had struck me earlier -- a mental image of herons dancing in a swamp. The comparison renewed when I next looked upward in awe at the stomping, whirling gyrations of the mighty battle machines, shattering buildings and making the earth shake with each hammer blow of their mincing feet. Steam hissed from broken mains. Basements and ossuaries collapsed, but the dance went on. Three monstrous things, wheeling ever closer to their chosen goal . . . which waited quietly, demurely, like a giant metal ingenue.

"Oh, they will converge all right, lieutenant. The question is-- shall we be ready when they do?"

My mind churned.

The essential task in envisioning the future is a capacity for wonder. I had said as much to journalists. These Martians lived in a future of technological effects we could but imagine. Only through such visualization could we glimpse their Achilles heel.

Now was the crucial moment when wonder, so long merely encased in idle talk, should spring forth to action.

Wonder . . . a fine word, but what did it mean? Summoning up an inner eye, which could scale up the present, pregnant with possibility, into . . . into . . .

What, then? Hertz, his waves, circuits, capacitors, wires --

Beauchamp glanced nervously around. "Even if you could get the attention of the military --"

"For such tasks the army is useless. I am thinking of something else." I said suddenly, filled with an assurance I could not explain. "The Martians will soon converge at the center of their obsession. And when they do, we shall be ready."

"Ready with what?"

"With what lies within our--" and here I thought of the pun, a glittering word soaring up from the shadowy subconscious "-- within our capacitance. "

The events of that long night compressed for me. I had hit upon the kernel of the idea, but the implementation loomed like an insuperable barrier.

Fortunately, I had not taken into account the skills of other men, especially the great leadership ability of my friend, M. Beauchamp. He had commanded a battalion against the Prussians, dominating his corner of the battlefield without

runners. With more like him, Sedan would never have fallen. His voice rose above the streaming crowds, and plucked forth from that torrent those who still had a will to contest the pillage of their city. He pointed to my figure, whom many seemed to know. My heart swelled at the thought that Frenchmen -- and Frenchwomen! -- would muster to a hasty cause upon the mention of my name, encouraged solely by the thought that I might offer a way to fight back.

I tried to describe my ideas as briskly as possible . . . but alas, brevity has never been my chief virtue. So I suppressed a flash of pique when the brash American, following the impulsive nature of his race, leaped up and shouted --

"Of course! Verne, you clever old frog. You've got it!"

-- and then, in vulgar but concise French, he proceeded to lay it all out in a matter of moments, conveying the practical essentials amid growing excitement from the crowd.

With an excited roar, our makeshift army set at once to work.

I am not a man of many particulars. But craftsmen and workers and simple men of manual dexterity stepped in while engineers, led by the Italian and the American, took charge of the practical details, charging about with the gusto of youth, unstoppable in their enthusiasm. In fevered haste, bands of patriots ripped the zinc sheets from bars. They scavenged the homes of the rich in search of silver. No time to beat it into proper electrodes -- they connected decanters and candlesticks into makeshift assortments. These they linked with copper wires, fetched from the cabling of the new electrical tramways.

The electropotentials of the silver with the copper, in the proper conducting medium, would be monstrosly reminiscent of the original "voltaic" pile of Alessandro Volta. In such a battery, shape does not matter so much as surface area, and proper wiring. Working through the smoky night, teams took these rods and pieces and made a miracle of rare design. The metals they immersed in a salty solution, emptying the wine vats of the district to make room, spilling the streets red, and giving any true Frenchman even greater cause to think only of vengeance!

These impromptu batteries, duplicated throughout the arrondissement, the quick engineers soon webbed together in a vast parallel circuit. Amid the preparations, M. Beauchamp and the English scientist inquired into my underlying logic.

"Consider the simple equations of planetary motion," I said. "Even though shot from the Martian surface with great speed, the time to reach Earth must be many months, perhaps a year."

"One can endure space for such a time?" Beauchamp frowned.

"Space, yes. It is mere vacuum. Tanks of their air-- thin stuff, Professor Lowell assures us from his observations -- could sustain them. But think! These Martians, they must have intelligence of our rank. They left their kind to venture forth and do battle. Several years without the comforts of home, until they have subdued our world and can send for more of their kind."

The Englishman seemed perplexed. "For more?"

"Specifically, for their families, their mates . . . dare I say their wives! Though it would seem that not all were left behind. At least one came along in the first wave, out of need for her expertise, perhaps, or possibly she was smuggled along on the ill-fated missile that our forces captured."

Beauchamp bellowed. "Zut! The four-legged one. There are reports of no others. You are right, Verne. It must be rare to bring one of that kind so close to battle!"

The Englishman shook his head. "Even if this is so, I do not follow how it applies to this situation." He gestured toward where the three terrible machines were nearing the tower, their gyrations now tight, their dance more languorous. Carefully, reverentially, yet with a clear longing they reached out to the great spire that Paris had almost voted to tear down, just a few years after the Grand Exhibition ended. Now all our hopes were founded in the city's wise decision to let M. Eiffel's masterpiece stand.

The Martians stroked its base, clasped the thick parts of the tower's curving thigh -- and commenced slowly to climb.

Beauchamp smirked at the English scholar, perhaps with a light touch of malice. "I expect you would not understand, sir. It is not in your national character to fathom this, ah, ritual."

"Humph!" Unwisely, the Englishman used Beauchamp's teasing as cause to take offense. "I'll wager that we give these Martians a whipping before your lot does!"

"Ah yes," Beauchamp remarked. "Whipping is more along the lines of the English, I believe."

With a glance, I chided my dear friend. After all, our work was now done. The young, the skilled, and the brave had the task well in hand. Like generals who have unleashed their regiments beyond recall, we had only to observe, awaiting either triumph or blame.

At dawn, an array of dozens and dozens of Volta batteries lay scattered across the south bank of the Seine. Some fell prey to rampages by smaller Martian machines, while others melted under hasty application of fuming acids. Cabling

wound through streets where buildings burned and women wept. Despite all obstacles of flame, rubble, and burning rays, all now terminated at Eiffel's tower.

The Martians' ardent climb grew manifestly amorous as the sun rose in piercing brilliance; warming our chilled bones: I was near the end of my endurance, sustained only by the excitement of observing Frenchmen and women fighting back with ingenuity and rare unity. But as the Martians scaled the tower-- driven by urges we can guess by analogy alone -- I began to doubt. My scheme was simple, but could it work?

I conferred with the dark Italian who supervised the connections.

"Potentials? Voltages?" He screwed up his face. "Who has had-a time to calculate. All I know, M'sewer, iz that we got-a plenty juice. You want-a fry a fish, use a hot flame."

I took his point. Even at comparatively low voltages, high currents can destroy any organism. A mere fraction of an Ampere can kill a man, if his skin is made a reasonable conductor by application of water, for example. Thus, we took it as a sign of a higher power at work, when the bright sun fell behind a glowering black cloud, and an early mist rolled in from the north. It made the tower slick beneath the orange lamps we had festooned about it.

And still the Martians climbed.

It was necessary to coordinate the discharge of so many batteries in one powerful jolt, a mustering of beta rays. Pyrotechnicians had taken up positions beside our command post, within sight of the giant, spectral figures which now had mounted a third of the way up the tower.

"Hey Verne!" The American shouted, with well-meant impudence. "You're on !"

I turned to see that a crowd had gathered. Their expressions of tense hope touched this old man's heart. Hope and faith in my idea. There would be no higher point in the life of a fabulist.

"Connect!" I cried. "Loose the hounds of electrodynamics!"

A skyrocket leaped forth, trailing sooty smoke-- a makeshift signal, but sufficient.

Down by the river and underneath a hundred ruins, scores of gaps and switches closed. Capacitors arced. A crackling rose from around the city as stored energy rushed along the copper cabling. I imagined for an instant the onrushing mob of beta rays, converging on --

The invaders suddenly shuddered, and soon there emerged thin, high cries, screams that were the first sign of how much like us they were, for their wails rose in hopeless agony, shrieks of despair from mouths which breathed lighter air than we, but knew the same depths of woe.

They toppled one by one, tumbling in the morning mist, crashing to shatter on the trampled lawns and cobblestones of the ironically named Champ-de-Mars . . . marshaling ground of the god of war, and now graveyard of his planetary champions.

The lesser machines, deprived of guidance, soon reeled away, some falling into the river, and many others destroyed by artillery, or even enraged mobs. So the threat ebbed from its horrid peak . . . at least for the time being.

As my reward for these services, I would ask that the site be renamed, for it was not the arts of battle which turned the metal monsters into burning slag. Nor even Zeus's lightning, which we had unleashed. In the final analysis, it was Aphrodite who had come to the aid of her favorite city.

What a fitting way for our uninvited guests to meet their end -- to die passionately in Paris, from a fatal love.