

“A MAJOR NEW TALENT.”
—GEORGE R. R. MARTIN



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THE ALCHEMY WARS: BOOK ONE

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For Sara, at long last

PART I

NOTHING OF IMPORTANCE HAPPENED TODAY

By and by the Duke of York... approved of my proposition to go into Holland to observe things there...

—FROM THE DIARY OF SAMUEL PEPYS, 19 MAY 1669

Nieuw-neder-land is 't puyck / en 't eelste van de Landen. / Een Seegen-rijck gewest, / daer Melck en Honigh vloeyd.

New Netherland is the greatest / and the noblest of all lands. / A blessed province, / where milk and honey flow.

—JACOB STEENDAM, 1664

²⁰³See Cooke [op. cit.] for a discussion of Huygens's unusual wartime visit to Cambridge and the Royal Society. His philosophical contretemps with Isaac Newton in 1675 (referenced in Society minutes as "The Great Corpuscular Debate") would mark the last significant intellectual discourse between England and the continent prior to the chaos of Interregnum and Annexation... Some Newton biographers [Winchester (1867), &c] indicate Huygens may have used his sojourn in Cambridge to access Newton's alchemical journals, and that key insights derived thusly may have been instrumental to Huygens's monumental breakthrough. However, cf. 't Hooft [1909] and references therein for a critique of the forensic alchemy underlying this assertion.

—FROM FREEMAN, THOMAS S. *A HISTORY OF PRE-ANNEXATION ENGLAND FROM HASTINGS TO THE GLORIOUS REVOLUTION*. 3 VOLS. NEW AMSTERDAM: ELSEVIER, 1918 (FOOTNOTE 203).

CHAPTER

1

It was the first public execution in several years, and thus, despite the cold drizzle, a rather unwieldy crowd thronged the open spaces of the Binnenhof. The rain pattered softly on umbrellas and awnings, trickled beneath silken collars, licked at the mosaicked paving tiles of Huygens Square, and played a soft tattoo—*ping, ping, ting*—from the brassy carapaces of the Clakkers standing in perfect mechanical unity atop the scaffold. It whispered beneath the shuffling agitation of the human crowd, and, as always here in The Hague, the quiet *tick-tick-tocking* of clockwork servitors standing to attend the more well-heeled citizens. The drizzle sounded a quiet counterpoint to the ceaseless clanking and clacking of the mechanical men who ever trotted to and fro on the Empire's business. Mechanical men like Jax, who detoured through the Binnenhof while running an errand for his human masters.

Rumor had it that in addition to a quartet of Papist spies, the doomed accused also included a rogue Clakker. No mechanical in the city would willingly miss this. Just in case the rumors were true.

Rogue Clakkers were a fairy tale mothers told to frighten disobedient children, and a legend the slaves told to comfort each other in the quiet hours of the night while their bone-and-meat masters slept and wept and made other uses of their flesh. Still... it was hard to resist the scandalous thrill of the tales of secret locksmiths and broken geasa and slaves with the temerity to pick the locks on their own souls. What an awful thing if it were true—so said the nervous fidgeting of the human crowd.

The mechanicals in attendance did not fidget.

Jax knew his kin felt the same wistful thrill he did, the anxious longing instilled by tales of the folkloric Queen Mab and her ragtag band of Lost Boys, living in their winter palace of Neverland. Mechanicals had secretly traded those fables for centuries.

Wind gusted the scent of the North Sea, twinned tangs of salt and wrack, across the square. It swayed the empty nooses strung from the gibbet. Pennants snapped atop the twin Gothic spires of the ancient Ridderzaal, the former Knight's Hall turned Clockmakers' Guildhall, defying the low gray sky with flashes of orange. So, too, the wind flapped carrot-colored banners crisscrossing the high spaces of the Binnenhof. Similar banners had been erected all around the Dutch-speaking world to celebrate the sestercentennial of *Het Wonderjaar*, Christiaan Huygens's Miracle Year.

Raindrops misted the Ridderzaal's immense rosette window. Water dripped from the architectural tracery that turned the window into a stained-glass cog. It streaked the colored panes of oculi and quatrefoils depicting the Empire's Arms: a rosy cross surrounded by the arms of the great families, all girded by the teeth of the Universal Cog. On the north edge of the Binnenhof, wind and rain together scalloped the surface of the Hofvijver, the court pond, tossing paper boats like discarded party favors on New Year's Day.

Another gust sent the aroma of fresh hot banketstaaf pastries eddying through the crowd, leaving

sighs and the jingle of opened purses in its wake. A clever baker had set up a counter alongside the fountain, and from there did a steady turn of business selling marzipan, speculaas cookies, and pastries thick with almond paste to the bloodthirsty voyeurs swarming the square. The baker took orders and dispensed change while his Clakker servants stoked the oven, mixed dough, folded and prepared new batches of almond paste, carved new wooden stamps on the fly for each order (speculaas (monkeys of the Indies, ships, even New World buffalo), and chopped apricots all with the blurred speed and imperturbably precise choreography of the mechanicals. The clacking of the reticulated escapements played a ceaseless castanet rattle beneath the rain-muted mutter of commerce. Steam and woodsmoke rose from the chimney of the baker's immense brick oven, which the Clakker had carried at a full trot from his shop a mile away.

Children darted through the throng, competing for spots as close to the executions as they could manage. Less affluent humans, those without mechanical servants to hold umbrellas for them, shivered openly in the wet. Many in the crowd carried opera glasses or other optical devices for a better view of the platform that had been erected just outside the Clockmakers' Guildhall. Good executions had become scarce owing to the cease-fire and nascent peace in the New World. Better still, if a rogue was to meet its justice today, that meant the Master Horologists would open the Grand Forge for the first time in many years.

Jax himself, having been forged in the Guild's secret laboratories 118 years earlier, suppressed a shudder. Every Clakker knew of the Grand Forge: an alchemical fire pit capable of searing away signs and souls; of rendering steel and brass into so much unthinking metal; of melting a Clakker's cog mainsprings, and chains into a slurry of de-magicked alloys; hot enough to vaporize any alchemical glamour and leave a Clakker naked before the ravages of thermodynamics and basic metallurgy. Hot enough to surpass Jax's capacity for metaphor.

And hot enough to incinerate a rogue's Free Will.

For such was the punishment for any slave with the audacity to pick the lock on its own soul: so the Empire's highest law had said since the time of Huygens himself.

Several children—all boys, Jax noted—squeezed to the front of the crowd, just past the edge of the scaffold. Shouts and sniffs of disapproval marked their passage. A boisterous lot they were, excited and energized by the grisly game they played. They had chosen their stations in hope that the rending of a rogue might send debris raining on the crowd—a fragment of metal, a shorn spring, even a tiny cog. Perhaps something with the oily sheen of alchemical alloys? Or a scrap imprinted with arcane symbols understood only by the trio of the Archmasters? They were old enough to know such things were forbidden, yet young enough still to find the forbidden irresistible rather than terrifying.

But that would change quickly if any detritus did spray into the crowd. The queen's Stemwinders weren't known for their tenderness. Rumor claimed the name derived from their ability (or penchant, depending upon the particular rumor) to twist a man's head off his neck, like popping a flower blossom from its stem.

Jax lingered at the edge of the square, rain pinging and splashing on his lustrous brass skeleton. (He polished himself every night after the cleaning, sewing, cooking, and baking, as per the standing order first issued by the great-grandfather of his current owner eighty-three years ago.) His current geas, the obligation placed upon him by his human owners, hadn't been worded with the ironclad inflexibility of the Throne's ninety-nine-year leases. And thus his current compulsion—currently a warm dull knife blade sawing at the back of his mind: pain was the leitmotif of a Clakker's servitude—hadn't been imposed with a sense of overwhelming urgency. He gauged that he could circumvent the worst of the agony as long as he delivered his message to Pastor Luuk Visser before the bottom

the noon hour. In that way he would be, as ever, a devoted and faithful servant to the Schoonraa family and, thus, the Throne. Visser's church, the famed and ancient Nieuwe Kerk, was a brief spri from the Binnenhof, a few hundred spring-loaded strides along the Spui River and one leap across the canal.

But just as the thought went winging through the private spaces of Jax's mechanical mind, he shuddered. A painful frisson ricocheted through the gearing of his spine. Already the heat of compulsion was honing the geas, tempering it into a red-hot razor blade, creating an irresistible phantom agony slashing at his shackled soul until he satisfied the demands of his human masters. The pain of compulsion would grow steadily until either he complied or died. He retensioned the springs of his neck and shoulders, the Clakker equivalent of gritting his teeth.

Please, he thought. Let me stay a little longer. I must know if it's true. If such things are possible. Are our dreams mere folly?

Many Clakkers in Huygens Square struggled to postpone fulfillment of their orders. All trembled to greater or lesser degrees, delaying as long as they could endure the pain. But one by one they departed as the agony of unfulfilled geasa overwhelmed them. The humans could shred your identity if you gave them reason.

Still, Jax and the others lingered. They were invisible. Part of the furniture. As they had been for over two hundred years.

He joined a pair of servitors standing under the Torentje, the Little Tower. A slight reduction in the stiffness of his cervical springs enabled him to rattle a covert *hello* at his companions. They clattered to him in kind. But despite the thrum of rain and obliviousness of humans, nobody felt particularly like conversing. Together all three watched in muted camaraderie, bobbing on their backward knees.

The giant carillon clock atop the Guildhall chimed noon. A dozen trumpeters decked out in the teal and tangerine of royal livery sounded a fanfare from atop the southwestern wall of the Binnenhof. The crowd cheered. Queen Margreet was coming to personally oversee the executions. Such had been her custom during the war when new traitors were rooted out seemingly every week.

A troop of the queen's elite personal guard bounded into the Stadtholder's Gate with clockwork precision, brandishing heavy brass fists and feet to clear the path for the monarch's conveyance. Today was a special day, and the queen saw fit to recognize this by riding in her Golden Carriage: a semisentient conveyance, a tireless self-propelled layer cake of teakwood, brass, and gold, powered by black alchemy and planetary gears. For what else could suit the most powerful woman in the world? the Queen on the Brasswork Throne?

The carriage's axles comprised a line of pedals set at exactly the right height for the line of bodiless Clakker legs dangling from the underbody. The gilded filigree and painstakingly hand-carved tracery of the carriage's ostentation hid myriad alchemical sigils that brought the legs to life. Logic dictated that somewhere Queen Margreet's Golden Carriage featured a special keyhole. Jax wondered where the clockmakers had concealed it. His keyhole, like that of all Clakkers, sat in the center of his forehead. Where presently, and more prosaically, it dripped with rainwater.

The Queen's Guard jogged ahead of her carriage, carving a path through the crowd like Old Testament prophets parting the Red Sea with kicks and clouts rather than divine purpose. Even other Clakkers made way for the royal guards. The elite mechanicals stood a full foot taller than common servitor models like Jax, their faces smooth and featureless beneath lidless eyes of blue diamonds. They were based on the military design, including the concealed blades, but with exceptional filigree etched into their escutcheons as befit their station.

The queen and her consort, Prince Rupert, waved to her subjects. Jax's geas throbbed as it always

did when he found himself in proximity to members of the royal family and other persons of high status. It was a whisper of the metageas imprinted upon every Clakker during its construction: a reminder that they were property of the Throne. The compulsion from his owners pulsed in response to the pain went from red-to orange-hot. He'd have to obey sooner than later. But he wanted to see. The cables in his back creaked with the effort to resist. Jax trembled again.

Please. Just a little longer. I just want to know.

The carriage drew to a stop beside a special staircase built just for the queen's feet. Two guards came forth with large umbrellas to shield the Royal Body, and out stepped Margreet the Second Queen of the Netherlands, Princess of Orange-Nassau and the Central Provinces, Blessed Sovereign of Europe, Protector of the New World, Light of Civilization and Benevolent Ruler of the Dutch Empire, Rightful Monarch Upon the Brasswork Throne.

Now the geas imposed by Jax's leaseholders went into full retreat. Officially every Clakker on Earth served others only at the monarch's sufferance. The Royal Presence was the sun about which every Clakker's obedience orbited.

The queen's gown relaxed when freed from the confines of the carriage; it settled about her like a waterfall of burgundy brocade. A fringe of teardrop pearls shimmered along her bodice when she drew herself to her full height. Today the queen wore her hair (a blond so pale it might have been woven from the same silver threads as her attire) in braids of spectacular complexity. The bezels in Jax's eye sockets ticktocked like a stopwatch as he zoomed and refocused. It was true, what they said about Queen Margreet's eyes; he'd never seen such a green outside of rare alchemical ices and pictures of gemstones from India. That made him wonder if perhaps there was truth behind some of the more scandalous things the humans whispered about their queen.

From the running board of her carriage she gazed upon the crowd. A hush fell. Even the relentless drizzle fell quiet. So complete was the silence that the rustle of fabric sounded loud as thunder when, as one, all the human men fell to one knee and all the human women descended into deep curtsies. Burgomasters and bankers, jonkheers and commoners, all assumed the posture of fealty. The rustling of dresses and trousers and suits was punctuated by the crack of metal slamming against glazed tile. Every Clakker within the Binnenhof prostrated itself in the queen's direction, like chrome-plated Muslims praying to Mecca. Jax's forehead came down on a pile of discarded pipe tobacco made gooey with spittle and rain. The mosaic felt warm against his face, a queasy reminder of the Grand Forge. Everybody held their poses for a long beat, a full rest in the symphony of obeisance ever playing throughout the heart of the Empire.

Still life: Cynosure in the Rain.

Finally, the queen declaimed, "Arise, my beloved subjects."

And the humans did. Jax couldn't see what happened next though he could discern the creaking of newly hewn wood as the queen and her husband took the steps. He watched a lone ant tugging at the fringes of the pile. Jax shifted his weight such that his head no longer pinned the tobacco to the wet ground. The ant extricated a fragment several times larger than its own body, then dragged it toward a minute opening in the mortar between two tiles. The queen ascended to the platform before snapping her fingers.

"Clakkers, up," she commanded—an afterthought spat over her shoulder like so much spittle on tobacco. Every mechanical servitor within earshot bounded to its feet, launched several yards into the air by the blistering agony that accompanied a royal decree. An agony whose only cure was immediate, unswerving obedience. A tremendous sigh filled the square as air whistled through dozens of skeletal servitors like Jax. The Binnenhof echoed with the jarring *clank* of metal feet hitting the tiles in perfect

synchrony. It set the bells atop the Ridderzaal to humming and sent panicked pigeons into the sky.

Jax's landing quenched the searing pain of the queen's momentary gasp. His errand for the Schoonraads reasserted itself. It assaulted him with a blistering torment, as if resentful of being usurped. He trembled, his moan coming out as a rattle and twang. His companions noticed.

Go, brother, before they unwrite you!

Not yet. I want to see the rogue.

The gallows platform had gone up in less than an hour thanks to a flurry of sawing and hammering from a Clakker construction detail. Sawdust eddies rode the gusting wind in the rain shadow beneath the scaffold, drawing and redrawing arabesques on the spot over which the secret Papists would soon dangle. At the moment, however, the platform was empty but for the queen, her consort, and her guards. She treated the crowd to a chipped-ice smile. The golden thread in the epaulets on Prince Rupert's naval uniform gleamed even in the dreary daylight, as did the medallions on his breast.

There followed two representatives from the Clockmakers' Guild. They trundled up to the platform in scarlet robes trimmed with ermine, the garb of Master Horologists. The long pendants dangling from their cowls featured the rosy cross inlaid in rubies. Jax scanned the crowd of grandees at the base of the platform. He'd heard it said that only two appeared in public at any given time, a third always staying hidden. It was a safeguard against accidents and French treachery. Violent catastrophes couldn't eliminate the arcane secrets whispered from lips to ear in an unbroken chain since the final days of Christiaan Huygens almost a quarter-millennium ago.

Next up the stairs—and wheezing like a bullet-riddled accordion—came Minister General Hendriks, pastor of the venerable Sint-Jacobskerk and spiritual head of the Empire. The minister general was tall as the queen's guards, but cadaverously thin with waxy, sallow flesh. Taken together, his thin face and the dark bags beneath his eyes made him look like a wax figure brought too close to the Grand Forge. The pastor paid his respects to the queen and vice versa. He bowed, then she kissed his ring, as did Prince Rupert.

They exchanged a few quiet words as the rustle of the crowd reasserted itself. The throng's muted murmuring became an ocean-surf crash of hissing punctuated with jeers and boos. Jax, whose attention still lay on the queen, thought for a moment the humans had turned on her. But then he refocused his eyes, the vernier bezels buzzing like a beehive as they spun to alter the focal length of his embedded optics, in time to see another carriage pass through the Gate. Dark, cramped, unlovely—this was the opposite of the queen's. Two horses strained at the harness; the conveyance they pulled was draped in black velvet all around. The secret Papists had arrived.

An onion hit the carriage even before the first of the French spies had emerged. But most of the crowd kept its indignation (and produce) in check while a pair of Royal Guards dropped from the platform to drag the Papists into the light. A faint vibration carried an echo of their impact all the way across the square to the soles of Jax's birdlike feet. The driver of the carriage, a woman wearing the drab gray wool of a teamster, hurriedly departed her perch. The carriage swayed on its suspension when the guards rummaged inside. Muffled moans and one short, sharp cry emanated from within. The guards emerged with each hand clamped around the forearm of a French agent. Tar-black burlap sacks had been draped over the prisoners' heads, their hands tied behind their backs.

The jeering began in earnest. So, too, did the pelting. Onions, tomatoes, and even dung splattered the prisoners and the Clakkers holding them. Nobody worried about hitting the guards any more than they worried about hitting the prison carriage. They were, after all, only unthinking machines.

The guards towered over the prisoners. One by one, they grabbed the humans under the shoulders and hurled them overhead. And, one by one, the Papists arched flailing and crying over the gallows.

platform, where other mechanicals gently plucked them from the air like clowns juggling raw eggs a Midsummer's Eve parade.

The gratuitous ballet made its point: these pitiable Catholics sought to undermine the Empire, but look how frail they were compared to the epitome of Dutch ingenuity! The men and women quivering on the platform certainly struck Jax as more pathetic than fearsome, these alleged agents of destruction, anarchy, and sedition. These slumped, bedraggled, and anonymous rag dolls. One, Jax noted, had wet himself. Poor fellow.

It was hard to dislike the French. Though naturally he would if so commanded.

The guards yanked the sacks from the Papists' heads. Two men and two women flinched from the dull light of an overcast afternoon. The crowd renewed its jeering with greater fervor. But the presence of women among the accused gave Jax pause. So, too, his colleagues; he could sense it in the way a subtle stillness fell among the Clakkers in the teeming crowd. Legend spoke of "*ondergrondse grachten*," a network of so-called underground canals overseen by Catholic nuns in the New World.

The spies' hair had been shorn. At first he thought a ghostly pallor had claimed them, or that they had fallen deathly ill while languishing in a dungeon. But their gray complexions began to melt away as the rain traced rivulets down their faces. Ash, he realized. Residue of burnt Catholic Bibles. An additional jab, one extra humiliation, this mockery of the Papists' Ash Wednesday practices. Even as the rain washed the ash from their faces, the accused still appeared gaunt and ill. It wouldn't have surprised Jax if they'd been forced to subsist on desecrated Communion wafers and wine while imprisoned.

The guards held the prisoners on display for more jeering and taunting while the monarch and his consort took their places in a covered booth and an executioner mounted the stairs. The latter, Jax saw, was just the carriage driver, now with the customary hood drawn over her head. The prisoner trembling started in earnest when the nooses went around their throats. Their shifts were too dark with rainwater and hurled insults to know if any of them wet themselves at the scratchy touch of braided hemp against their skin. The hangman took her place alongside the platform lever. The humans in the crowd fell silent.

"Citizens!" said the queen. "There stands before you a dire threat to our way of life. Catholic agents dedicated to the destruction of your ideals, your culture, your families. Your prosperity! Your very happiness! All these things they despise." She raised her hands to quell the rising chorus of indignation from the throng. "These criminals seek to subvert the natural order of the world. To lessen the dignity of man by equating him with his creations!" This stoked the crowd's fury. As, no doubt, intended. When the hisses and calls for blood subsided enough for her voice to carry across the Binnenhof once more, Queen Margreet concluded, "But in the finest and fairest tradition of Dutch justice, they have been tried and found guilty of sedition against the Brasswork Throne. And, as dictated by the laws of our empire, set forth by centuries of legal precedent, their punishment is death."

The crowd applauded. Jax expanded and contracted the shock absorbers in his legs. His colleague joined him in expressing the Clakker equivalent of a human sigh.

Minister Hendriks stepped into the rain to address the condemned. "Renounce your heresy," he insisted, "and lessen the burden upon your souls. Return to the Creator as misguided children. Become prodigal heirs returning as supplicants to their Father's embrace. Not as promoters of devilry. Let your final moments in the corporeal world be a testament to the grace of God."

None of the prisoners took the pastor's offer. One of the men leaned forward, straining against the noose. He spat at the pastor, hurled his words at the queen: "Yours are the tainted souls! The Lord will

know your guilt when He judges you. Your sins—”

The queen cut him off with a bored wave. The executioner hauled on the lever, the trapdoor snicked open, and then four Papists twisted in the wind, their heads lolling at unnatural angles. Cheering and applause echoed across Huygens Square. It turned into an excited chatter while the guards cut down the dead men and women and closed the platform. The corpses were loaded on a wagon and swiftly hauled away. Jax supposed they would take the corpses to the medical college.

The Schoonraad geas erupted again, tugging like the barbs of a white-hot fishhook snared in the folds of his mind. He took an involuntary step toward the Gate and the completion of his errand. But he still hadn't seen the rogue. Granite cracked like a gunshot beneath his fingertips as he attempted to anchor himself to the façade of the Little Tower.

We will bear witness, if you must leave, said one in the Clakkers' secret language of clicks, ticks, and rattles. The other clinked and clunked, *Our geas compels us to wait for our mistress*. Jax tightened his grip.

Two guards leapt from the gallows platform again and trotted to the immense double door fronting the Clockmakers' Guildhall. They hauled on the massive slabs of ironwood until the rumbling of the doors shook the mosaic underfoot. Giddy ocean-surf murmuring eddied through the human crowd. A subtle change also came over the tenor of the clanking and rattling in the metallic onlookers. The Guild's ceremonial doors opened only on the rarest occasions.

A trio of mechanicals emerged from the shadows of the Guild. They marched abreast, massive Clakkers on either side holding aloft a trembling servitor-class model. That must have been the rogue. Its escorts looked nothing like the other Clakkers present in the Binnenhof, much less their human creators, for these clockwork centaurs had a four-legged gait and four arms.

The crowd gasped. Some of the younger boys forced their way forward for a better view.

Stemwinders: dedicated servants of horologists and alchemists, mute protectors of their dangerous arcana. The rarest, most feared, and most mysterious class of Clakker. The Stemwinders were built by and exclusively for, the Verderer's Office. Though their remit was not the greenery of a forest but the walled garden of Guild secrets. The Verderer's Office kept those secrets from spreading like weeds. The Verderers were the Guild's very own secret police force, officially charged with preserving the clockmakers' hegemony. Which in practice proved a very broad mandate.

Stemwinder anatomy struck most humans as grotesque and troubling to the eye. A perversion of God's image as reflected in the perfect humaniform template. There were those who even found the servitors' backward knees a perversion of the Divine Plan. But other classes of Clakker shunned the Stemwinders, too. As far as Jax knew, no mechanical had ever communicated with a Stemwinder in the Clakkers' own language. Alien in every way, they differed even in their ticktocking. He wondered if they were lonely.

But today the Stemwinders were but a secondary source of fascination. It was the one they carried the struggling servitor, who captured the crowd's attention.

He looked so normal. *He looks like me*, thought Jax. A living machine struggling pointlessly against forces greater than itself. As Jax trembled against the mounting anguish of his geas and the escalating urgency of the errand to Pastor Visser, so did the prisoner struggle against the unshakeable grasp of the Stemwinders. They even trembled in sympathetic fashion to one another, he and Jax, the servitor bodies built upon the same master plan of cogs, springs, and cables.

The Stemwinders hurled the captive to the pair of Royal Guards still on the gallows platform. They towered over the servitor, standing to each side and pulling his arms wide. The servitor renewed his struggles but the wildest thrashing couldn't budge the guards even a mil.

The Stemwinders, relieved of their burden, trotted to the space beneath the gallows platform. The crowd—human and Clakker alike—surged backward as the centaurs advanced. The Stemwinder made the most bizarre ratcheting sound, like the stripping of gears combined with a metallic whine of an overstressed steel cable. Two arms on each Stemwinder extended to thrice their original length, the digits on the end folding and refolding in complex geometry. The transformation complete, the reconfigured limbs speared into the mosaic tiles. The ground jolted with a heavy *click* that sent water sloshing over the lip of the fountain basin and onlookers stumbling to maintain their balance. The centaurs, now firmly attached to something beneath the platform, trotted in a circle several yards wide. Huygens Square echoed with the screech of bearings in need of oil. (The Master Horologists frowned at one another.) A thin cylindrical patch of Huygens Square slowly protruded above the rest of the mosaic, as though the Stemwinders were unscrewing the lid of an immense jar of pickled cucumbers. When it stood nearly a foot above the level of the Square, the centaurs levered open a pair of interlocking semicircular hatches.

A baleful crimson glow illuminated the timbers of the gallows platform. Heat washed across the square, so intense that those nearest the platform staggered. It chased the chill from the farthest corners of the Binnenhof. Rainwater flashed to steam. The queen clutched a scented handkerchief to her nose as the stench of brimstone billowed from the open flue.

The smell of Hell. The smell of the Grand Forge.

A new ticking pervaded Huygens Square. It was accompanied by a faint whooshing noise reminiscent of the spinning of a vast clockwork. The glow fluctuated with the ebb and flow of the sussurrations, as though periodically eclipsed. Wavering shafts of light projected arcane sigils within the mist. The marks of the alchemists' art swirled in an intricate dance.

The torment of an unfulfilled geas speared Jax's mind, his joints, his every bearing and pinion. He doubled over. He took an involuntary step toward the Stadtholder's Gate, stamping a puddle with his birdish splay-toed foot. Another step. Another. Granite crumbled to sand beneath his grip on the Little Tower's façade.

His colleagues surreptitiously stepped around him, taking positions that blocked him from most of the crowd's view. A kindly gesture. Fortunately all eyes were directed not at Jax but to the feared and hated rogue atop the platform. If they were, somebody might have noticed the handprint he'd left indelibly pressed into the stonework.

Jax levered himself upright. He needed to see. The crystals in his eye sockets rotated again as he refocused on the figures atop the platform. Ignoring the rain, Queen Margreet approached the prisoner. She took care to stay beyond the reach of his legs. Humans might have looked down upon the Clakkers, but they never underestimated their strength or speed. Not since Louis XIV's field marshal centuries earlier had anybody made that mistake.

The queen asked, "What is your name, machine?"

"Perch," he said.

"Your true name. Tell me your true name, machine."

"My makers called me Perjumbellagostrivantus," he said. At this, the queen looked, if not exactly satisfied, perhaps smug. But a flush bloomed beneath her porcelain cheekbones when he added, "But I call myself Adam."

Whispers rippled through the crowd like undulations in a field of wheat. A cold disquiet blown on winds of awe and disbelief. The humans shivered. One man fainted.

"Bend your knees," said the queen to the Clakker. "Kneel before your sovereign."

"No," said the Clakker to the queen. "I'd prefer not."

The crowd gasped. The onlookers' silence shattered into myriad mutters, grumbles, and prayers. ~~Clakker disobeying a human? Disregarding an order? An order from *the queen*? This was the stuff~~ fever fancies, akin to giants and dragons. It did not happen. Wasn't this impossible? A few men and women choked on sobs, paralyzed by the terrible spectacle of a rogue Clakker.

The mechanicals in the crowd also watched with mounting anxiety. But theirs was the attention of the rapt, the fascinated. The inspired. He *refused*. He *said* no.

"Bend your knees," she said, in a voice so frigid it might have quenched the searing heat wafting from the Forge. "Take the yoke."

"Choke on your yoke."

The mood of the crowd crystallized: in the humans, raw anger, for a Clakker had just told the Monarch of the Brasswork Throne to stuff it; but in the mechanicals, pride at witnessing the birth of a folk hero. A very perceptive human standing within the Binnenhof at that moment, and not given over to blind outrage, might have noticed a subtle change in the timbre of the ticktocking from the Clakker in attendance. But they wouldn't have recognized it as furtive, encrypted applause.

Queen Margreet gestured at her guards. Each put its free hand on the rogue's shoulder. They forced their weight upon him until his knees buckled and he slammed to the platform with enough force to splinter the timbers. The rogue gazed up at her, legs splayed before him. The immutability of Clakker physiology left his bronze face expressionless and unreadable as the day he was forged. Jax wondered what he was feeling.

The queen loomed over him. "You are a machine. You will take the yoke for which you were made." Her voice cracked under the weight of all that ice, taking her composure with it. Her final pronouncement came as unconstrained hollering: "And you will know the mastery of your makers!"

"I will not. I'll—"

But the queen had gestured again to her guards. Faster than any human eye could have followed, one of the armored mechanicals crammed something the size and shape of a quail egg past the rogue's open jaws. There was a soft *pop* when the rogue unwittingly bit the package, followed by the dreaded sound of seized clockwork, of stripped gears and broken springs as he tried to speak past the quick-setting epoxy resin filling his mouth. He looked like a rabid dog with an icicle of pale yellow foam stuck to its chin.

At first the agony from his gears made it difficult for Jax to recognize why this struck him as odd. Convulsions wracked him to rival a full-blown case of tetanus in a human. He couldn't delay much longer.

Epoxy, he thought. *That's a French thing, isn't it?*

Hendriks came forward. His chest swelled with a deep breath as though he were preparing to launch into a long sermon. But the queen hissed something at him and he deflated. The minister general quickly pronounced the rogue Clakker Perjumbellagostrivantus a vessel usurped by malignant influences, the Enemy's tool for spreading disharmony and fear, as evidenced by its contempt for propriety and the astonishing lack of deference to Queen Margreet. This soulless machine, he deemed, had been irrevocably corrupted by dark angels bent on unraveling the Lord's work. And that thus was their duty to destroy this collection of cogs and springs, and deprive the Enemy of his tool.

The Master Horologists spoke for the first time since mounting the gallows platform.

"This machine is irreparably flawed," pronounced the first from deep within the shadows of his cowl.

"It cannot be mended," said the second.

"The alloys must be recast. This is the judgment of the Sacred Guild of Horologists and

Alchemists, inheritors of the arts of Huygens and Spinoza.”

“As a single slipped bearing will create imbalance—”

“As one imperfect escapement will create irregularity that ruins the synchrony between man reckoning and the cycles of the heavens—”

“As a solitary stripped cog will create vibrations that, left undamped, will threaten the mechanism whole—”

They concluded in unison, “So, too, are the defects in this machine a danger dire to unity, amidst peace. It must be recast and forged anew. This is the Highest Law.”

The humans took care never to state their law in terms of Free Will. But if he wasn't possessed of Free Will, Jax wondered, just what was the rogue? Was he the thrall of demons, as Hendrik suggested? What if—

Wracked by paroxysms of blinding pain, he jackknifed at the waist like a carpenter's rule. The back of his skull pulverized mosaic tiles. But the noise was swallowed by the growing clamor as the human crowd called for the dissolution of the soulless rogue.

The guards held the prisoner fast as the executioner once again levered open the trapdoor. The rogue's feet dangled over the pit. Cherry-colored light gleamed on the dented, scratched, unpolished alloys of his lower legs. His body made a tremendous amount of noise. The rattling of loose cogs, the clanking of springs, the *tock-tick-tock* of escapements and wheeze of chipped bezels... To human ears, the clockwork equivalent of chattering teeth.

Jax succumbed to the unrelenting torment of an overdue gas. He launched to his feet from where he lay writhing on the ground and sprinted at top speed toward the Stadtholder's Gate. The unbearable pain diminished infinitesimally with every step he took toward the fulfillment of his mandate. Like a raindrop rolling down dry valleys to the sea, his body sensed the contours of agony and helplessness, followed their gradient. Impelled by alchemical compulsion rather than gravity, Jax became an unstoppable boulder careering along gullies of human whim.

The leaf springs in his calves had already propelled him beyond the Binnenhof when, moments later, there came the faint *clang* of metal upon metal followed by a crashing-surf roar of approval from the crowd. But the sound of the rogue's demise hardly registered, for his thoughts were preoccupied with the noise the doomed Clakker's body had made in those final moments. For where humans had doubtless heard only the chattering of fear, the involuntary shuddering of mortal terror, the mechanicals in the audience had heard something quite different.

It was a burst of hypertelegraphy from the heart of the Empire, a secret message for any and all Clakkers within earshot. The final words of Perjumbellagostrivantus, rogue:

Clockmakers lie.

CHAPTER

2

A bloodthirsty roar erupted from the Binnenhof. It echoed under the low leaden sky and rumbled throughout the central district of The Hague. The barbarous swell blew through an open window and echoed across the quiet spaces of the Nieuwe Kerk. The noise startled Pastor Luuk Visser, causing him to fling the fistful of rat poison he'd meant to stir into a chalice of communion wine.

The deadly crystals pattered like sleet into the hidden ambry. They tinkled across the fine feathered gold inlay etched into the pyx, dusted the filigree of the tabernacle, skittered along the shallow curve of the paten, and settled like dandruff upon the yellowing linen corporal. It collected in miniature snowdrifts in the corners of the secret cupboard, behind his rosary and statuette of the Blessed Virgin. A few crystals even lodged themselves into the cracked leather of an antique microscope. The poison went everywhere but into the wine.

Visser shook the folded corporal above the chalice, salting the wine with poison. His hands shook as he swept the scattered crystals into his cupped palm. He tried to work quickly lest Guild agents kick down the door before the poison had time to batter him into unconsciousness. Any moment, sorcerers, clockmakers and their grotesque Stemwinder thugs would come for him.

Suicide was a mortal sin—what an ironic death for a secret Catholic. Depriving himself of divine grace in the final moments of his decades of service to the Holy See? To die for his beliefs was to die a martyr and the only acceptable destiny for one in his position. And, frankly, one that had loomed since his ordination. But the Grand Forge held terrors for men of flesh and metal alike, and the martyr's path had long ago lost its appeal for Visser since those idealistic days just after he'd kissed the pope's ring in Québec. Visser knew, as no newly ordained priest could, the sounds and smells of a man hugged with yellow-hot pincers. The screams, the burnt-pork stink of charred flesh... Doubtless his cohort had been subjected to such and worse prior to their executions.

Doubtless they had divulged everything they knew. Including the identity of the final member of their shattered French spy ring. And not just any spy, but a secret Papist masquerading as a leading Protestant pastor. An enemy agent who had painstakingly insinuated himself into the heart of the Empire. The Stemwinders would alight upon such a fellow with malicious glee.

Hence the rat poison.

He was a sinner caught between two terrors. On one hand, affirming his faith to suffer the damage of the ingenuity of the Verderer's Office. On the other, rejecting the honor of martyrdom to die in a state of mortal sin.

Visser's trembling hands knocked over a thumb-sized pewter ampulla. Chrism gurgled from the vessel. The olive oil, shipped from Dutch orchards along the Mediterranean prior to consecration, seeped into the corporal and oozed over the lip of the recessed cabinet. Thin rivulets trickled down the

plaster wall. Now, when Visser closed the ambry, the holy oil would form a glistening stain with sharp edge: obvious enough to tip even the dullest Stemwinder to the presence of a hidden chamber behind Visser's wardrobe. Where they'd find Catholic accoutrements and, worst of all, the microscope.

"God damn it," he muttered.

Yes, he thought with a fatalistic snort, *a long time since I was a naïve novitiate in Québec.*

Visser paused for a moment. Was it worth delaying to clean the mess?

He was already a doomed man the moment Stemwinders and their human masters marched inside. Before that, even, since it would mean his contact in Talleyrand's network had identified him. So it made little difference if they uncovered actual evidence of the famous Pastor Visser's secret devotion to the pope. That was merely a formality; they could always plant a Catholic Bible or a statuette of the Virgin somewhere. ("When we caught him, he was praying to a graven image." That's what they'd say.) It was merely a formality. Little point, then, in hiding his allegiance to the Vatican. Except...

The microscope. He simmered with frustration. So many years of work, decades of careful observation conducted right under the queen's nose. Visser flirted with the sin of pride when he reflected upon the complex and unparalleled feat of espionage that brought the microscope, and its optics, into his possession. But it was a pointless pride: the woman who had secreted it behind the alms box had been taken by the Stemwinders the next morning. And by the time Visser had realized it wasn't a random lucky poaching by the Dutch but a concerted operation to roll up Talleyrand's network in The Hague, it was too late. Visser's contact had disappeared into the dungeons of the Verderer's Office of the Sacred Guild of Horologists and Alchemists.

Had the Dutch waited just a couple of days he could have sent the artifact on its way to the New World. But they hadn't, and he couldn't. So now he was stuck with the damn thing. Rotten timing. Rotten enough to make the usual trust in God's wisdom a bitter balm. Rotten enough to erode the faith of an already cynical priest.

And now he was cut off, unable to get a message to Talleyrand, the French spymaster. News of the executions would eventually make it to the New World. But Talleyrand would lack details about what remained—and, worst of all, would never know that French agents had finally poached a top secret piece of Guild technology.

What had the Lord intended, if not for the furtherance of His cause? Why let Visser get so close only to yank the rug from beneath his feet? Always were the ways of the Lord mysterious. So be it. But sometimes, it seemed, they were unarguably capricious, too.

Well, Visser decided, *if this is God's plan, no point in trying to hide the evidence.* And anyway, it was a pain in the ass trying to mop up spilled chrism. Even the lowliest deacon knew that. Let the horologists deal with the mess.

He flicked the last of the rat poison from his sweaty palms into the wine. Then he pressed his trembling hands together and bowed his head.

"Lord," he whispered, "I beg Your forgiveness for this thing I do. I have ever been Your glad and faithful servant. But I am no longer young, and my flesh is weak—"

Elsewhere a heavy door groaned open. Diamond-hard metal feet screeched across polished marble. A rapid ticktocking echoed through the high spaces of the octagonal church. They'd come for him.

"Well," he concluded rapidly, "I guess You know the rest. See You soon. Amen."

Visser lifted the chalice. He flinched at the cold touch of metal to his lips. The familiar scent of fermented grapes couldn't mask a scorching whiff of toxic chemical astringency. He hoped the adulterated communion tasted better than it smelled. And felt ashamed of his failure to embrace the

example of Christ. He lacked the mettle to peacefully await his fate in the Garden of Gethsemane.

~~The fluting, atonal drone of a Clakker voice reverberated in the empty church. “Good afternoon, Pastor Visser? Are you here, sir?”~~

Visser paused in the act of tipping the chalice. Fear tremors sent ripples skating across the surface of the corrupted wine. Now, who had ever heard of a Stemwinder that could speak? Their masters deliberately muted the poor brutes, the better to suffer in silence. He listened. It sounded like a single pair of feet rather than the doubled syncopation of a quadruped.

Tightening his grip on the chalice, ready to pour its contents down his throat, he cracked open the vestry door. A lone servitor Clakker strode toward the altar, swaying on its backward knees.

“Pastor Visser?” Its voice warbled with urgency, the tremulous singsong of unsuccessful repressed pain. It vibrated so violently its silhouette was a soft blur. The poor thing labored under heavy geas in the late stages of compulsion. The sight of such agony made Visser’s heart ache. So much that he knew he’d choose to lessen the creature’s suffering even if it meant losing the opportunity to slip the verderers’ clutches. Perhaps he would allow them to find him in the garden after all. He’d spent his night in Gethsemane in prayer and panic, but now emerged to meet his fate. A timely twinge of compassion was the nudge he needed to overcome his fear of martyrdom. Mysterious ways, indeed.

He rolled his eyes heavenward. “Thank you, Lord.”

“One moment,” he called. He set the chalice in the cupboard, closed the secret ambry, shut and locked his wardrobe. After checking himself in the mirror for obvious signs of treachery, and errant flecks of poison, he straightened his vestments. He didn’t look too obviously like a spy caught on the brink of suicide. Nor like a priest who had nearly betrayed his own beliefs. He hoped.

He emerged from the vestry. The mechanical’s silhouette grew blurrier as Visser approached; the torment of unfulfilled geas had the wretched creature shivering faster than the human eye could follow. *Let’s get this poor fellow on his way. If I’m quick about it, I can free him from his torment before mine begins.*

“What do you need?”

Normally he’d have taken a harder tone with the mechanical, aping the cold disregard for mechanicals that was part of the Empire’s cultural bedrock. The prosperity achieved through slavery had a way of blinding men’s hearts to the evil of their own hands. He’d worn that beard in public for years, though it rankled against his impulse for simple Catholic charity. But now that he’d chosen the martyr’s path, he could uncage his heart. He could say all the things he’d never dared.

He glanced at his wristwatch, wondering if he and this Clakker would conclude their business before the Stemwinders nabbed him. In fact... horologists were a conniving bunch, the verderers worst of all. Was this a deliberate ploy to lure him out? The church resounded with the noise of mechanical distress: clicks, clanks, rattles, buzzes. The geas had either been imposed with great urgency or its fulfillment had been unacceptably delayed. Both consistent with a ploy.

The Clakker bowed. Even in the throes of agony it was unfailingly polite. Spasms and tremors peppered the Clakker’s voice with random inflections, though still the reeds and strings of the mechanical voicebox produced an intelligible approximation of human speech. “Sincerest apologies for the interruption, sir. I have come on behalf of my owner, Pieter Schoonraad. I came to retrieve the letter of introduction we discussed.”

“I’m truly sorry,” said Visser—something you never heard a human say to a mechanical, not with sincerity, and not in the Central Provinces—“but you must be mistaken.”

“Begging your pardon, Pastor, but we did speak several days ago. I belong to the Schoonraad

family. I am Jax.”

~~Oh, damnation. The letter.~~ He'd forgotten about that, preoccupied as he was with the sundering his network and speculation about his own capture.

Martyrdom meant suffering. A bead of sweat trickled down Visser's forehead, skirted the bridge of his nose, and stung his eye with salt. He mopped a sleeve across his forehead but not before the mechanical noticed his discomfort.

Cogs rattled as the Clakker, Jax, cocked his head. Bezels hummed in his eye sockets, too. Visser knew one of the standard-issue subsidiary geasa had kicked in even before Jax spoke again.

“You look unwell, sir. Do you require physic?”

Visser waved off the query. “I'm afraid I haven't composed the letter. I've been quite busy.”

Jax's unchecked vibrations grew louder, faster. Visser could have sworn his shoulders slumped too. Another pang pricked his heart. Were this a human he would have laid a hand on his arm. But that gesture would have been dangerous while the mechanical vibrated so violently.

“Again begging your pardon, sir, but my current geas forbids me from returning until I have obtained your letter of introduction. The family sails for New Amsterdam next month. Many preparations must be completed prior to the voyage.”

Well, then. If somebody needed help accepting his martyrdom, this would be ideal. It would take a bit of time to compose the letter; enough for the Stemwinders to barge in and drag him away. And if his resolve faltered again and he tried to kill himself there was every possibility the servitor would intervene. It certainly would if it came to suspect the pastor was a danger to himself. Visser could even envision a scenario where Jax ripped the vestry door from its hinges and administered violent first aid; in an emergency, a Clakker could force a man to empty his stomach. The calculus of bondage would allow it: the damage done to Visser's body in the course of the triage would be outweighed by the service to society by ensuring the pastor's longevity. Any way he sliced it, he landed in the horologists' hands.

Praised be Your wisdom, Lord. I embrace the path You have chosen for me.

Visser said, “Remind me. To whom am I providing introductions?”

Over the rattling of his own body, Jax said, “My master understands you are acquainted with the minister general of New Amsterdam. He feels that special, personal attention to the family's pastoral care would ease their transition to life in the New World.” The mechanical paused, cocked his head again. “Have I said something untoward, sir? You appear alarmed.”

New Amsterdam! Visser suppressed the urge to roll his eyes heavenward again. *Is this what appears, Lord?*

Miraculous deliverance! And to think Visser had nearly scuttled it in a moment of weakness. From the depths of sorrow to veritable giddiness in the span of a few minutes: such was the Lord's solace for His faithful. Visser saw now the path forward. Saw his life's temporal work brought to a successful culmination along with his spiritual journey.

Visser smiled. It wasn't affected. “I'll write your letter. Wait here.”

The Clakker bowed. “As you say, sir. Thank you, sir.”

Once in the vestry, with the door shut behind him, Visser retrieved the microscope from the hidden ambry. He set it on his writing desk. The brass-bound leather tube wanted to roll away, so he moved an onyx paperweight to prevent it from toppling to the floor. Then he settled down with fountain pen and, clicking the cap against his teeth, reviewed his last correspondence with an old acquaintance who currently oversaw the clergy of New Amsterdam.

On a blank sheet of letterhead stationery, he wrote:

*To the Very Reverend Minister General Langbroek:
My Dear Coenraad,*

Greetings and salutations from The Hague. In response to your letter of last month, I have spoken with M. G. Hendriks to arrange for an additional shipment to New Amsterdam. Several hundred gallons of unconsecrated olive oil should be on their way to you before the first of the month. What news of the cease-fire? We pray it will mean the end of disruption to your clergy's pastoral duties.

Now another, more pleasant, matter.

I humbly commend into your care the honorable and prosperous Schoonraad family, a well-known and highly respected clan late of The Hague. The Schoonraads have long been steadfast and devout members of my own congregation. I would be grateful if you should see fit to personally welcome them to New Amsterdam.

The rampant corruption and embezzlement by the van Althuis banking concern, and subsequent near-collapse of the Central Bank of New Amsterdam—a scandal with which you must be well acquainted—has been a matter of great concern to the Brasswork Throne. Pieter Schoonraad has been chosen for the formidable task of reestablishing a stable center of finance in the New World. As such he is Queen Margreet's representative in this matter; any kindnesses shown to him or his family will, naturally, reflect well upon the spiritual leadership of New Amsterdam.

He is a shrewd, methodical man and, I think, equal to the task appointed him. Nevertheless, this journey across the sea to unfamiliar shores will be both adventure and trial for his family. At such times, a solid bedrock of spiritual guidance is an unequalled balm. Thus, though their absence from our community will be a painful loss, it would bring me great comfort to know they have landed under your aegis.

Please let me know when the oil arrives.

*I am, as ever, your humble friend and colleague,
Pastor Luuk Visser*

He folded the letter, sealed it in an envelope, and scrawled *Pastor Coenraad Langbroek, Minister General of New Amsterdam* on the outside. As he finished, new footsteps entered the church. They were softer and lighter than Jax's tread. Human. Horologists? But then the shrill of an imperious prepubescent child made Visser cringe. No, this new arrival wasn't a clockmaker or one of the mechanical brutes. It was something worse: Nicolet, the youngest Schoonraad. Taking up the letter and microscope, he steeled himself before emerging from the vestry. The church smelled of mechanical lubricant and hot metal. The heir presumptive to the Schoonraad fortune wore a dress of vermilion satin with matching ribbons tied through her blond ringlets. Arms akimbo, she scowled at the clockwork man.

Her human governess, whose name Visser vaguely remembered was Kathryn something, stood among the pews. The look on her face might have been exasperation or resignation. He didn't know the woman well enough to tell. He returned her curtsy with a nod. They must have attended the executions at the Binnenhof.

“Jax,” said the girl, “I want you to carry me.”

~~“Yes, mistress. I will do as you require immediately after I have completed your father’s errand.”~~

She shook her head with enough vigor to send the ringlets flying. “No. Jalyksegethistrovantus, demand that you pick me up and carry me right *now*.” The sole of her red leather shoe clapped against hard marble—a stamped foot being, in the eyes of many children, the ultimate punctuation mark. Jax lurched as though he’d just been harpooned by a passing whaler. A tortured grinding of cogs and the *twang* of an overstressed mainspring reverberated loudly enough to rattle the windows.

Visser sighed. What a wretched little git. At least accepting his martyrdom freed him to say the things he’d always wanted to say. Perhaps his last act as a free man would be to teach this girl some human decency.

“Good afternoon, young Miss Schoonraad,” he said. “I sense a problem?”

Nicolet said, “Jax is broken. It won’t do what I say.”

Oh, for heaven’s sake. Did Nicolet truly not understand the hierarchical metageas? Or was she merely being cruel?

I wanted to offer succor to this poor suffering creature. Now I’m stuck giving a lesson on human/Clakker relations to a spoiled rich girl who has been surrounded by mechanicals since birth.

He took a seat on the nearest pew. After setting the microscope beside him, he donned a pensive look. It rolled to the back of the bench while he frowned and scratched his chin.

“Oh dear,” he said. “Because it—” Here Visser corrected himself. Years of living in the Empire, of fitting in, had trained him to use the contemptuous pronoun. It was a semantic trick that reinforced the cultural mores surrounding Clakkers: strip them of identity, strip them of dignity, strip them of personal value beyond their servitude. But Visser no longer worried about fitting in. “—He isn’t obeying your demands, he must be malfunctioning. Is that the problem?”

Kathryn frowned, but the choice of wording was lost on Nicolet. “Yes!”

The clashing imperatives of the various Schoonraads’ orders—cruelly emphasized through a uncouth invocation of the Clakker’s true name—did not generate a true paradox owing to the hierarchical metageasa implanted in every mechanical servant. However, the urgency of her demand had worsened the tremendous pressure under which Jax had already been laboring. Jax officially belonged to the Throne, and thus the queen’s wishes, or those of her direct representatives, always took precedence. After that, the terms of his ninety-nine-year lease made him beholden to the leaseholder, presumably Pieter Schoonraad. After that, Jax served other members of the family in descending order of seniority. And then, like any Clakker, he was compelled to serve humans and humanity in general. A fact of which Visser hoped to take advantage.

But first he’d have to prevent that little twit from making her toy shake itself to pieces on the floor of the church. Jax’s outline fuzzed into transparency, so rapidly did he vibrate. The need to obey the young miss burned brightly in the poor creature’s eyes. But until Visser placed the letter in the servant’s hands, the elder Schoonraad’s orders rendered Jax physically incapable of departing. The cacophony sounded like a wagon full of scrap metal careering down the immense grand staircase of the queen’s Summer Palace. The mechanical’s feet scored the marble floor. The governess winced at the noise. But when Visser caught her eye, she merely rolled her eyes and shrugged. As if to say, *What can one do? Folly is the privilege of the young.* Heartlessness wasn’t the sole province of the rich.

Visser rushed forward, letter in hand. The mechanical’s eyes locked on the envelope: the only thing that could release him from the torment of his overdue geas. But though he shuddered violently, Jax wore the permanently neutral expression of a servitor Clakker. His immutable faceplate had been mass-produced, stamped from alchemical alloys in the Grand Forge. Very early on, Huygens or h

successors had realized that perfecting Clakker technology meant making allowances for human psychology. Thus, the standard face of a servitor Clakker was carefully and deliberately designed to give no indication of an independent thought process taking place within the metal skull. It was another means of anonymizing them, dehumanizing them. But in the early days, when even mechanical wore a unique painted mask to hide the intricate clockworks within its skeletal visage, local artists contributed designs. There was a market for antique Clakker masks, particularly in Delft. A Verelst could go for quite a few guilders. Visser had seen a couple in the museum in Delft a few years ago.

He wondered, as he so often did, what went on behind that impassive façade. How did Jax feel about Nicolet, deep in the most private recesses of his imprisoned heart? Was he indifferent? Did he loathe her? Did he love her? Visser didn't need to read a facial expression to know the unfortunate thing was in excruciating agony. He shoved the letter at the suffering mechanical.

The clacking and clattering of Jax's body fell silent the instant his fingers closed on the letter. The noise from the overburdened mechanical instantly fell to the usual ticktock clacking of a servitor. Jax's jerking feet stopped etching the marble floor. The church no longer echoed, though it still reeked of hot metal.

"One letter of introduction, as requested."

The Clakker bowed again. "My master thanks you."

Jax turned to lift Nicolet upon his shoulders. But before he could do so, Visser said, "Mijn Schoonraad? I would know more about your damaged servitor, if I may."

"It's broken. It didn't pick me up when I told it to."

"That is a terrible problem. It takes a long time to mend a broken Clakker, you know. We'll have to ship him back to the Guildhall. And the horologists will have to take him apart and determine the problem. You and your mother and father will have long since sailed away before Jax is fixed. Your father will probably have to lease a new Clakker to take Jax's place. I'm told it takes longer in the New World, though. Goodness. Months might pass before you have a replacement."

"I don't want a replacement. I want Jax."

"Well, then. Perhaps we can narrow down the problem? If we can tell the horologists exactly what's wrong with Jax, they might heal him more quickly."

Visser snuck a sidelong glance at Kathryn. She chewed her lip, frowning at him. She looked unsettled, or confused, by his choice of words. Nicolet was oblivious to everything but the indignity of not getting exactly what she wanted the moment she wanted it.

"It's broken because it's disobedient." The last word she pronounced with deliberation, cupping it in her mouth like a spun-sugar confection. Her eyes widened. "Do you know what they do to disobedient Clakkers? I saw it. They melt them!"

"Yes, I know. Now let me ask you something. Why is Jax here right now?"

Nicolet pretended a silver hairpin had snagged in her hair. While the governess scuttled over to retie her ribbons, Nicolet mumbled, "My father sent it."

"So he isn't disobedient to your father."

She shrugged. "I suppose. Ouch, not so tight."

"And what if the errand wasn't completed when you told him to carry you? Because Jax was waiting for that?" Visser pointed at the envelope in Jax's hand.

She looked away. Quietly, she conceded, "Then it couldn't leave."

"But you laid a second geas upon Jax. One he couldn't fulfill. You insisted, though, and made it urgent. He was torn."

Kathryn cleared her throat. “*It* was torn. Isn’t that what you mean, Pastor?” A loyal governess looking out for her charge, protecting her from dangerous ideas.

But Visser chose to commit himself to the martyr’s path with a bit of heresy. “I think the lesson might find its target if, for the purposes of this discussion, we pretend Jax is a person.”

Even little Nicolet frowned at that. “Ticktock men aren’t *people*. They’re just stupid machines. Everybody knows *that*.”

“But let’s imagine how Jax might feel if he *were* a person.”

Kathryn laid her hands on Nicolet’s shoulders. “I’m certain you’re quite busy, Pastor Visser. We should be on our way.”

“Nonsense,” he said. “Promoting Christian values is part and parcel of my earthly mission. As is promoting the moral upbringing of every child in my flock.”

The governess looked distinctly unhappy, but she didn’t drag her charge from the Nieuwe Kerk.

Visser scratched his chin. He needed to get the microscope on its way before the Stemwinders arrived. But he took comfort in his faith that the Lord would see fit to allow that. He could take the time to try to teach a bit of compassion. Shifting the world’s attitude toward Clakkers meant effecting a generational change. It had to start with the young.

“How do you feel, Miss Schoonraad, when your mother is cross with you?”

The girl mumbled something he couldn’t hear. Kathryn chided, “A lady enunciates.”

“I don’t like it. It makes me sad.”

“And when your mother and father are both cross with you?”

“It’s worse.”

“Do you ever cry?”

“No.”

Kathryn clucked her tongue. “Lies never befit a lady.”

Nicolet blushed. “Sometimes.”

“I imagine that’s how Jax felt when you laid that second geas upon him. It was as though you and your father were both punishing him.”

“Oh,” she said.

Well, he’d tried. “Now, I know you’re eager for your ride, but I wonder if I could speak to Jax a moment longer?”

Nicolet tugged on a blond ringlet. Bored and haughty, in much the manner of the queen, she said, “Jalyksegethistrovantus, I release you.”

Now the tricky part. It was risky enough suborning the Schoonraads’ Clakker into a seditious errand, but he had to do it in full view of Nicolet and her governess. And it had to sound eminent and innocent. The story he spun here had to be above suspicion. Otherwise, once the Stemwinders caught him, and scrutinized all of his interactions, the story of this unusual request would come out, and they’d send agents to intercept Jax. Perhaps he shouldn’t have been quite so glib with the governess.

Visser brandished the microscope, then yanked it just beyond the girl’s greedy reach. What a cruel tragedy it would be if he missed this opportunity. Even if it meant laying yet another geas, and a long-term one, upon the poor creature.

The governess, Kathryn, looked appalled. “Nicolet!”

The girl caught herself. Her hands fell to her sides like a pair of dead birds. “I’m sorry. What that?” Even Kathryn looked intrigued. “It looks like a telescope.”

The leather tube had once been a rich mahogany color, though now it was dried and cracked in places. The device was about a foot long and two inches in diameter. Each end was fitted with

tarnished brass ring holding a cloudy glass globule. A third brass fitting banded the center of the tube. Once upon a time the tube had been designed such that the ends could be counter-rotated to adjust the distance between the lenses. But the center ring no longer rotated. The contraption smelled, very faintly, of ammonia.

“What an excellent guess. This is a microscope. I acquired it in Leiden a while back, as a curiosity. It’s very old.”

Nicolet pronounced, in the way that only the precocious immature child of a wealthy family could. “Van Leeuwenhoek invented the microscope. Everybody knows that.”

Like all children, her education didn’t suffer from a lack of emphasis on the historical roots of the Empire. Clakkers were the pinnacle, but the Netherlands of the late seventeenth century had incubated a myriad scientific and artistic innovations. And, as was so often the case, the history taught to children was oversimplified, watered down, and oftentimes counterfactual.

“But van Leeuwenhoek’s microscopes were very simple in comparison. This is a compound microscope.” Visser pointed to each end of the tube. “That means it contains more than one lens.”

“Let me see!” she said. Visser bit his lip. He couldn’t refuse her. Not if he wanted to maintain the charade of curious indifference.

The governess said, “Nicolet—”

“No, it’s quite fine. Of course she can look.” Visser handed the tube to the girl, knowing as he did that he might be placing the future of New France quite literally in her impetuous hands.

Nicolet glanced around for something to study. Fixating on the scratches Jax had left in the marble floor, she knelt. Then she clapped a hand over one eye and held the tube to the other. Visser stepped aside to move his shadow out of her light. She bobbed her head, trying different distances from the lens. Frustrated, she flipped the microscope around—Visser flinched—and tried looking through the opposite end. She frowned. After another few moments of experimentation she gave up on the floor and peered around the church.

“I can’t see anything,” she said. “It’s broken.” And with a contemptuous gesture almost tossed the tube back to Visser. A bead of chill sweat trickled behind his ear.

“Yes, I’m afraid that it hasn’t been well cared-for. As I said, it’s quite old. Perhaps even older,” he said, “than the oldest Clakkers.”

Kathryn blinked. It even gave Nicolet pause.

“But it isn’t as durable as a Clakker. So as you pointed out,” Visser continued, “it isn’t terribly useful any longer. The glass is quite inferior to what we’d use today. And it’s impossible to know how long it’s been neglected. Quite a while since the leather was oiled, certainly. Its days as a technological marvel are long, long in the past. But!” He wagged the tube under Nicolet’s nose. “As a historical artifact, it’s quite something, isn’t it?”

The Schoonraad girl shrugged. “It’s old.”

Visser addressed all three of them: the girl, her governess, and their mechanical man. But for the usual ticktocking—the subtle background noise of the Empire—Jax had remained silent while Visser made his presentation, appearing to pay no particular attention to the microscope. Could the Clakkers sense something unusual? Did his alchemical mechanisms imbue him with an affinity for forbidden fragments of Clakker technology? If so, another metageas would force him to apprehend and report to Visser. They’d get him sooner than later. But the Lord wouldn’t let that happen until he fulfilled his duty to the Holy See. The only path lay forward.

The pastor continued, “Indeed it is. I have an acquaintance who runs, or I should say ‘ran,’ a tiny museum in New Amsterdam. Grand ambitions, frankly, and his reach exceeds his grasp. A noble

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