Gnat

Vince Savage walked out the door of Centurion Enterprises' vast corporate campus and was met by the glare of a mid-June, noontime sun. Having just been summarily let go, he stood there, briefcase in hand, and tried to absorb the severity of his situation. He numbly walked down the manicured main entrance and onto a path leading to the Northwest parking lot several hundred yards away.

The last seventy-five yards passed through a stand of evergreen and hardwood trees. Midway, a wooden bridge provided passage over a quaint brook. Swarms of mosquitoes and blackflies tainted the idyllic environment, and signs warned that the area would be closed for spraying the upcoming weekend.

Vince emerged from the trees and entered the parking lot. Despite the frantic waving of his right hand, one tiny, pesky bug stuck with him, rooted a few inches to the right of his right eye, barely in view. He swatted at it, but the bug persisted. Finally, he set his briefcase down and clumsily circled while frantically waving his arms around his head. A chunky five feet nine, with shirt hanging out and tie amiss, the sweaty Vince, now a forty-two-year-old unemployed R&D manager, resembled a defeated interviewee.

Two neatly attired young women approached him as they walked toward the bridge. When they strolled past, one looked up from her phone and giggled, "How's it *going*, Vince?" The pair were marketing interns that worked for Vince's ex-wife, Linda.

Vince picked up the briefcase, tossed it into the trunk of his nearby car, and hurried to the driver's side door. "Freaking gnat!" he yelled as he squeezed in, flapping his right hand around his head. He slammed the door, leaned back, and closed his eyes. The virtually air tight car was silent. Smiling, he opened his eyes, then immediately lunged forward and blasted out a stream of expletives. A pair of coworkers, Roger and Nate, walked past the car. Roger knocked on the driver's side window.

"Vince, are you ok?" Roger asked as the window rolled down.

"No, I'm not," said Vince. "I managed to let in a bug...or something. Probably a weird gnat that migrated to Maine thanks to global warming. You can't even hear it buzz. It's next to my right eye, see?" Vince tilted his head.

Roger and Nate exchanged glances. "Must have flown out, Vince," said Nate.

"No, it's right here!" yelled Vince as his right hand formed a pistol pointed at his head.

"Well, it'll fly out soon," said Roger. "Where are you headed?"

"Home! I got fired—no heads up, no explanation; just a severance package."

"Oh..." said Roger as he and Nate backed off. "I'm...sorry."

"Well, whatever," said Vince. "Anyway, good luck. No doubt this is the beginning of a massive layoff, especially if they let someone like me go."

Vince started the car and sped down the exit road. Just before the open security gate, the gnat appeared directly in front of his right eye. He swerved, barely missing a concrete post in front of the guard shack, then drove a short way before pulling over. Vince eyed the side view mirror and saw the guard shack alert light transition from green to yellow.

He rolled the window down and rested his left arm on it as two security guards in an SUV pulled up. One of them walked over. "Is everything ok, Mr. Savage?"

"No, I just got canned!" As he said that, Vince noticed a grayish spot on the back of his left hand. He slammed his right palm on it, then slowly lifted his hand. The spot faded away.

"Did you see that? The gnat sort of dematerialized after I squashed it!"

"I'm sorry, sir, I didn't see anything," replied the guard, who nodded to his partner. "I suggest you take a moment to compose yourself and then go home."

Vince sighed and rolled up his window, relieved to at least be free of the gnat. Within seconds of driving off, though, he began to pound the steering wheel with his left hand. The gnat, or another one, was back in formation.

*

Now divorced *and* out of work, Vince entered the stillness of his apartment at Glidden Towers in Portland. Although analytical in nature, he was nonetheless stumped by the mysteries of relationships. A lame counseling session prior to the 'no fault' divorce three months ago did nothing to enlighten him. The best insight came from Stan Wiley, a Centurion counterpart, over a few beers at a local pub:

"Let's face it," said Stan, "you're an introvert, she's an extrovert; you're eccentric, she's organized; you're cheap beer, she's fine wine." He paused. "You're frumpy, she's elegant."

Gnat

"I get the message, Stan," said Vince. "You didn't have to throw in that last bit."

"The bottom line, Vince, is that you're a Centurion lifer and Linda is a future CEO, destined for a bigger pond someday."

A marketing executive, Linda made more money than Vince. The divorce was straight forward and the settlement fair. They had no children and remained friendly. Still, Vince grappled with uncertainty. What didn't he see? Despite what Stan said, there had to be more.

After grabbing a beer from the refrigerator, Vince sank into the couch in the open living area and instinctively raised his hand to brush away the gnat. "This just sucks," he muttered as he aborted the swat attempt and downed half his beer.

Vince pondered the gnat situation: Shouldn't have swatted the thing so quickly, he thought. I blew a chance to get a closer look at it. Maybe I have the Zika II virus and am going mad; those blood suckers ate me alive when I was walking to my car. I can see the write-up in the paper now: "Recently part of a massive layoff at Centurion Enterprises, Vince Savage jumped off the fifteenth floor balcony of his Glidden Towers apartment. He likely had gone mad after contracting the Zika II virus." Hopefully they won't mention that I got fired on a Monday. Cripes, how bad is that?

Vince finished his beer and walked into the bathroom. *Of course,* he thought, *look in the mirror; should have done that when I was in the car!*

Vince peered into the mirror over the sink—no gnat in the mirror, and none in his field of vision! He tried different angles, low light, bright light, jumping up and down—nothing. Back in his living room, selfies and even a web cam session between his laptop and a desktop produced the same result. "I'm freaking hallucinating," he said aloud. "Must be my meds."

He sat back down on the couch just as his cell phone rang. Recognizing the caller, he blandly answered, "Hi, Linda, what's up?"

"What's up!" Linda shouted. "Christ, Vince, I heard they let you go and that you were acting strange on your way out!"

Vince breathlessly replied, "I'm all right, just a bit shell shocked. But I keep seeing a gnat out of the corner of my right eye. I thought I killed it but it came back. It's always there, except once in a while it appears in front of my eye for a second. It doesn't buzz, though, and I can't see it when I look in the mirror. I couldn't even see it when I took a selfie. For the past several weeks I've been taking anxiety meds and staying up late working and then having a few too many drinks before crashing. But that's going to change. I'm going to turn in early tonight and regroup tomorrow. I'll be fine."

"I'm so sorry, Vince," said Linda. "Listen, take care of yourself and let me know if...you know, if you need anything...a reference or something. I'm really glad we can talk like this. I...miss you."

"Yuh...well...me too. Bye." Frustrated, Vince tossed the phone onto the coffee table, wishing he could read people better.

*

Vince crashed on the couch yet managed to pull himself upright at seven Tuesday morning. Noting the empty bottles and a loaded, half eaten, extra-large pizza, he said, "Well, very nice of me to buy me a pizza." He picked the delivery receipt out of the rubble. "Ordered at ten forty-four PM, I assume by me. So much for turning in early."

Despite only a few hours of beery sleep, Vince felt refreshed. Given his generous severance pay, he decided to take on the gnat problem before dealing with his other issues. Nothing like a good technical challenge to displace the mental clutter of personnel matters.

After coffee, Vince retrieved the local newspaper outside his door. The paper didn't mention any layoffs at Centurion, and now he wished he had grilled Linda for some scuttlebutt. Layoffs were sometimes executed to get rid of the 'dead wood', a tag that certainly didn't apply to him. He needed to make some calls, and check voice and text messages, but they would have to wait.

Vince recalled a plan he worked up while binging on the beer and pizza, a plan formed during the creative period that occurred before his free fall into useless drunkenness. To get a glimpse of the elusive gnat, he concluded stealth was required, and decided to construct a simple three-axis infrared camera array to photograph it in the dark.

A trip to a camera store resulted in the purchase of six cameras along with several customizable stands. While there, Vince questioned his obsessive behavior: wouldn't it make more sense to apply it to future employment pursuits? In reality, though, he was in his element. Being a manager didn't mean he had lost touch with his lab rat inner self. In fact, over time, he had transformed his apartment into a geek pad.

*

"Ok," said Vince, surrounded by his gear and talking to himself again. "I have to be standing, and the focal point will be two or so inches to the right of my right eye." He looked up. "One camera overhead..." He looked down, "...and one below. One in front of me, one in back, one to my right and...crap, my head is in the way, I can't get a shot from my left! Oh well, now I have an extra camera, no biggie. I'll have to assume symmetry and derive the left view from the right side image. So...let's see. I've got image capture software on my laptop, USB data acquisition hardware, and a remote.

All I have to do is a little programming. Piece of cake! I'll just take a series of simultaneous still pictures in complete darkness."

The electronics were easy. He finished the configuration, wiring, and programming by midafternoon. The tricky part involved camera locations, especially the one to be suspended from above. As a result, the cameras ended up in the bedroom since he could utilize the ceiling fan as a base—after moving the bed.

Setting it all up was surreal, as if he were burying land mines while the enemy accompanied him. Regardless, Vince ignored his appendage and completed the project, including a test run, by early evening. He targeted eleven o'clock as the execution time.

At ten, Vince laid down on his bed. Dense fog coupled with a lone window that faced away from the city lights left the room sufficiently dark.

He glanced at his watch at ten forty-five and decided to proceed. Remote in hand, he tip-toed into position amongst the camera array and stood frozen for several minutes, barely breathing. Finally, he pressed the button and closed his eyes.

Gnat

Vince counted to sixty and, surprised at how hard his heart pounded, flicked on the wall light. He woke up the laptop and started a slideshow. After viewing the first image, he paused it and went into the kitchen. His hands shook as he pulled a beer from the fridge and opened it. Back in his bedroom, he contemplated the image—a complex, impossibly intricate entity. He had no idea what it could be.

*

Following the slide show, Vince launched his CAD software and imported the best image from each viewpoint. He invoked the software's sophisticated rendering feature, which, twenty agonizing minutes later, revealed a detailed, threedimensional image of a drone with four rotary blades. Dimensioned to a scale he had predicted, its longest span was three millimeters. He created multiple backups of all files and, totally wired, prepared for an all-nighter.

It was time to check voice mails and text messages. A missed call came from Barry Holbrook, peculiar because Barry abruptly left Centurion several months ago and disappeared amidst a wave of sensational rumors. He had been a highly regarded robotics expert, particularly at the ultra-miniature scale. The two of them had rarely crossed paths, however. Curious, Vince called him even though it was now past midnight on Wednesday.

Barry answered immediately. "Hi Vince, I was hoping you'd call. You ok?"

"Sure...well...not really," said Vince haltingly, surprised to actually hear Barry's voice. "A lot is going on. And you? You dropped completely off the radar."

"Been subterranean, so to speak," replied Barry. "I've also been monitoring the air waves. I heard you were let go for no reason. Is that true?"

"It is. I have no idea why, or even how many others were let go." *And why do you care?* Vince thought.

"I can shed some light on that," said Barry, "but we need to meet in person, and right away. One thing I know is that you were the only person who was given walking papers. I'll contact you shortly on a secure channel."

"Ok," said Vince, "but I have to tell you that there's this weird..."

Barry hung up before Vince could tell him about the gnat. *So*, he thought, *Barry is still around*.

'Secure channel' was a tongue-in-cheek Centurion way of saying, "Let's meet at Denny's Restaurant." For some, working offsite provided therapeutic value during grueling spells of weeks on end without a break.

*

"Black coffee please," Vince said to the waitress after settling into a seat opposite Barry. As his extended hand was swallowed by Barry's meaty mitt, he appreciated the paradox of Barry— six feet six, over three hundred pounds, thick glasses, master of building tiny robots.

"You left quite the trail of intrigue when you suddenly vanished last January," said Vince. "What was that about; why did you go radio silent?"

"I'll explain my situation in a moment, Vince," replied Barry testily. "First, though, tell me what you were going to say before I cut you off." "Show and tell time then," said Vince as he set up his laptop. "After being escorted out, I walked through the mosquito mine field crossing the bridge. I emerged with a freaking gnat practically attached to me. It's with me now, right here," Vince pointed to his right ear, "but you can't see it. Anyway, I captured images of it with an infrared camera array and built a CAD model. Here it is." He spun his laptop around and pushed it in front of Barry.

Barry studied the 3D model as he scaled, zoomed, and rotated it. "That's *my* drone design, Vince, Centurion stole it from me."

Vince regarded Barry with disbelief. "Come again?"

"Well, it's like this," Barry explained. "Prior to being hired, I was on my own, developing what I call the Organic Micro Drone, or OMD for short. It's based on nanotechnology. I personally financed it, and intended to market it to the government, but I ran into cash flow issues. I needed income and Centurion wanted someone to help them develop a drone for their factory automation. I let my guard down, and they swiped my prototype OMD design. That's probably what they had in mind all along. Long story short, I was abruptly informed in January that my services were no longer needed. They gave me the boot and six months' pay. That gnat, as you call it, is their crude implementation of my design."

Vince frowned. "I need to wrap my head around this," he said, "so let me ask a few technical questions. First, how come I can see it out of the corner of my eye but not when I look in a mirror? And how come no one else can see it?" "It's all optics and weird science," replied Barry. "It's likely that some people who have a vision profile similar to yours can see it. It exposes a major flaw on Centurion's part. Like my prototype, their drone fluctuates between translucency and transparency; they apparently couldn't figure out how to make it completely transparent. They also botched its positioning system. Most of the time it's supposed to be several feet from you. Their implementation has flaws that mine doesn't."

"Ok, so why is this OMD hanging around me?"

"Because, Vince, you are Centurion's first test subject."

"Test subject!" said Vince as he leaned forward. "What the hell does that mean?"

"I don't know yet, but remember the two interns and your coworkers back in the parking lot?"

"Yes," Vince stiffly replied, wondering how Barry even knew about them.

"Well," said Barry, "they and the security guard you talked to reported your odd behavior. Did the guard have sunglasses on?"

Vince nodded. "Yup, unusual ones, lighter than normal, and wavy."

"I thought so. While working on the translucence problem, I designed a lens that allowed me to see a sort of ghost image of the OMD. They stole that too. The guard lied to you; he *was* able to see the OMD, and he confirmed it by signaling his partner."

"But I squashed it. How did another one appear?"

"Simple," Barry replied. "You didn't *squash* the OMD; it was being absorbed into your skin through rapid osmosis. It charges its tiny power system using your body's electrolytes, then re-emerges." "And it occasionally appears in front of my eye because..."

Barry smiled smugly. "Because of periodic calibration. It scans your right eye to confirm you're the intended host. There are some amazing optics behind all this, not to mention a processor and communications. It's super tough, too, able to withstand environmental stresses much greater than those we humans are subjected to, including submersion. It's not ready for space travel, though, I'm working on that."

"Yes, I'm sure you are," said Vince. "So what is the purpose of this thing?"

"It's very basic," replied Barry. "The OMD finds you, follows you, and reports your location. My newest version has the ability to monitor a few vitals as well."

Vince stared intently at Barry. "Why am I the test subject?"

"I have some very loyal allies at Centurion, Vince. They told me it was Linda that suggested you be the initial test subject."

"That can't be!" cried Vince. "Someone put her up to it. I mean..." He looked away. "Think about it, Vince. Who does she work for?"

Vince sighed. "Carlozzi, a vicious cutthroat. Banished his own son because he screwed up once. He's a master of getting you dirty, and once he does, he owns you."

To which Barry said, "And he's the head of—"

"—the Division of Classified Enterprises," Vince finished. "Ok, I get it, but why, how? What they're doing has to be a felony."

"Look," said Barry, "we're into the wee hours of the morning. Let's meet here at noon for lunch to figure out our next steps. Do not—and I really mean *do not*— talk to anyone, especially Linda."

*

Vince returned to his apartment and immediately dropped onto the couch. He woke up at sixty-thirty, made coffee, and turned on the TV as the NBC Today Show broadcasted a breaking news item:

"...will be conducting a press conference in the White House briefing room at nine eastern time to announce the roll out of a national ID initiative based on retinal scan technology. As you recall, this was a campaign promise he made when he ran for his second term in office. Additionally, at eight tonight, the President will deliver a speech from the Oval Office. NBC will be covering both of these events live..."

About time, Vince thought as he walked into the kitchen. He'll probably outline it at nine and then add details during the Oval Office speech. It'll be interesting to hear Barry's take on it when we meet for lunch at Denny's.

After breakfast, Vince realized he hadn't noticed the gnat since Barry had advised him at Denny's his brain would soon begin filtering out the annoying specter. Somewhat relieved, he stayed glued to the TV until nine. Following the usual opening formalities, the President addressed the press:

"As you know, when I ran for my second term, I promised a national ID program based on retinal scan technology. I am here today to announce that, because of lack of cooperation from Congress, I am using my executive authority to roll out the National Retinal Scan Identification Program, to be called RSID for short, and it will be fully implemented by the Department of Homeland Security within one year.

"What this means is that anyone on United States soil, including territories, as well as U.S. embassies, military installations, and other such entities around the world, shall require the RSID. There will be many stipulations, such as, you may not enter our country without first having one. This means you will be scanned as you deboard an international flight. If your RSID isn't found, you will be held for a security clearance check. If cleared, your RSID will be created.

"In addition, the United States Government has partnered with Centurion Enterprises in Portland, Maine, to implement an incredible technology it has developed called the Organic Micro Drone, or OMD. This gnat sized drone will be used for real time tracking of individuals such as immigrants, felons, and suspected terrorists—to name a few—as well as people associated with radical religions, antigovernment movements, biased media organizations, cults, gangs, cartels, and so on. I will give more detailed information tonight in my address from the Oval Office. I will not be taking any questions. Thank you."

Vince sat paralyzed on the couch. *Did I actually hear the words 'Centurion Enterprises' and 'Organic Micro Drone'?* he mused. *Is the endgame to have an OMD tethered to everyone?* He reached for the anxiety pills on the coffee table, hesitated, and sat back. Instead, he called Barry. The phone rang, but didn't go into voice mail.

Gnat

With the camera array still in place, he figured he had enough time to execute another image capture. He did, and the gnat didn't appear in any image.

*

Vince walked into Denny's at noon and sat down at the counter. Nearly an hour later, Barry still hadn't shown up. He dialed his number again; this time it wasn't recognized. His hand trembled as he set the phone down. It was obvious to Vince that roughly twelve hours ago, here at Denny's, the OMD had been instructed to register Barry as its new host. Centurion, of course, had retained a copy of Barry's retinal scan in its digital image library.

He hurried back to his apartment, his brain on fire. It made sense now—sort of. Carlozzi and the President were distant cousins. Linda's late nights at Centurion prior to the divorce were no doubt coerced rendezvouses with Carlozzi, and her insistence on an amicable divorce had been driven by remorse. Barry was surely gone, and his Centurion allies as well. But where to? Were they dead, or had they been shuttled to a safe house by a benefactor? And what of his own fate?

Back in his apartment, Vince initiated reformats of the hard drives on his computers, then quickly stuffed a few personal items into a travel bag, including his laptop, the cameras, and all external memory devices. He left his apartment key cards on the kitchen counter and started to the door just as his cell phone began to ring.

Vince stared at the phone. The call terminated when it went into voice mail. As he tried to digest the caller ID—Department of Homeland Security—something off

Gnat

the corner of his right eye caught his attention. "Oh my god!" he said. A wave of fear pierced him as he ran to the door and opened it.

"I'll take the bag, Vince," said Barry, walking up to him as two other men grabbed his arms. "You should never have been the test subject. Now we have a major clean up ahead of us. Sorry."

"We! We who? Who are you with; where are we going?" Vince struggled as they marched toward the exit. Barry said nothing. He opened the door, and the four of them disappeared down the stairs seconds before another entourage burst out of a nearby elevator and hastily made their way to Vince's apartment. Seeing his door open, they turned and ran to the exit, but were too late. By the time they reached the ground floor, Vince was hunkered down in the back of a nondescript van making its way out of Portland.