

Spike's life since Twilight had come out of her coma was a whirlwind of errands. Doubly so when construction on their new house began. Even with the help of Twilight's friends, and Owlowicius to take over during nights, Spike felt completely overworked. Every morning he had to cook breakfast. He had to send letters, which recently had gone from simply setting fire to them to transport them to one of the princesses, to running back and forth to the post office. Sometimes he had to make copies of things Twilight wrote, and with her writing so much his hands had become prone to painfully seizing up. Twilight assured him that "soon" she'd make something to help with that, but for now he would have to do as she said.

Twilight had been doing that a lot lately. "Not now Spike," she'd say. "Soon I'll relax," or "Soon I'll let Pinkie throw a party," or "Soon you can take a break." It never happened.

He long ago stopped trying to understand what Twilight was writing now. He used to always take a look at her letters to get a sense of what she was doing or what she had learned on any given day, or what she thought was important. Now it seemed that the more he tried to make sense of anything she wrote down, the less he actually understood. When he tried to ask about something, she'd grumble to herself, bark off some short snippy comment and then ignore him. Even during the worst of her studies back in Canterlot, she had never been this way.

What had happened to her?

As the weeks passed and her new house became a reality, Twilight hunched over her old desk in the library scribbling out a few final letters before she would begin to move to the new house in earnest. She'd leave all the "scientific" junk in the basement. It was almost all worthless. She'd leave all the books here too. They were either all fiction, that is, useless, or wrong, that is, even more useless. She'd have to write entirely new ones. It wasn't looking like any of the ponies she was writing to were going to do any revisions of their theories any time soon. Weeks she'd been sending letters to the scientists and

professors Princess Celestia had listed, and not a single reply had come back.

As she put the last stroke on her latest letter, she dropped the quill with excessive force causing it to snap.

"Mephistopheles," she said, out loud. Luckily there was currently no one around to hear her.

"Yes?" he said. He lay on the floor, still as a statue. It was just a good a pose as any, he wasn't really there. Twilight wondered sometimes why he picked certain poses at certain times, when he had no need for physical comfort. She didn't care enough to actually ask though, not yet anyway.

"How have all my letters been received?" asked Twilight.

"Generally? Poorly. The specifics would take many hours to say. The overwhelming majority view your letters as indecipherable, as they are incompatible with current theories."

"*What* current theories?" asked Twilight. "Nopony else *has* any theories!"

Mephistopheles shrugged. "They are there, but are vague and ill-defined. None of them were told to pay any particular attention to you, so almost all believe you to be a blabbering crackpot and most have stopped reading your letters altogether. Only three pay you any mind now, but they have, as of yet, not replied as they are still puzzling over particular things."

"Who are these three and what are they puzzling over?" asked Twilight, her ears perking up. It was good to know she wasn't being *completely* ignored.

"Star Swirl the Astronomer from Hayard University is currently trying to identify Uranus and Neptune, as well as find evidence for the Asteroid Belt between Mars and Jupiter. She is also using your maps to track the planets in order to test their accuracy. She is very impressed so far.

"Magic Star, assistant to the head of the Spell Creation Institute in Canterlot is the most enthusiastic of your current listeners and is busy telling everypony who will listen about your treatise on Transmutation via Xi Flow Manipulation. She has a reputation for being very excited over new things and so nopony pays her any attention. She is also young, and her youth does not enamour her to others, nor does her Earth Pony status. Her master Violet Stone is who you are actually writing to, and he merely throws your letters out, unread.

"The last is Brown Box, a retired engineer, who has taken your design for the ink-pen and is making several of the devices to sell. He plans to give you the majority of the profits and hopes that will be enough to prevent you from getting angry at his theft of ideas. He awaits actual profits before replying."

Twilight grumbled to herself that this pony had thought to take her invention without actually writing to her first. If he'd only asked, she'd have let him have all the profits, if he wanted them. She had far better ways to make money than selling pens which she could already think of improvements for.

"Maybe I'm going about this all wrong," said Twilight absentmindedly. "Maybe I shouldn't bother writing to ponies who are already old and set in their ways. Maybe... maybe I should open a school? If ponies were taught the truth from the very beginning, things would be easier. They wouldn't have to unlearn anything."

"If you like," said Mephistopheles.

"It would give a new purpose to this tree house," continued Twilight. "I don't like it housing so many worthless books. I can convert it to a small schoolhouse, take a few fillies and colts as apprentices or something, get my ideas noticed that way. Or maybe I could just find more engineers and inventors, , and just offer them improvements for their businesses."

"Why not do both?"

That idea struck Twilight like a bolt of lightning.

"You're right!" she said, getting excited. "Why *not* do both? I'll have to write to Celestia for permission to teach, but I'm sure she won't mind. And nopony says I can't give away inventions."

Mephistopheles leaned upwards and spread his forehooves outward as if giving permission. He didn't need to give permission though. Twilight didn't owe him anything, least of all his leave to do something.

Twilight looked down at her recently finished letter. The ink had dried, but it didn't matter. She wasn't going to send it now that she knew it wasn't doing any good.

The next day was a Friday. It was the day Twilight sent a letter to the Princess asking for permission to teach. It was also the day Twilight was finally able to move into her new house.

It was two stories, plus a basement. It was large, and the second story had a balcony from where she could look through a telescope and see the heavenly bodies if she wished. It sat near a river, and a waterwheel had been installed to provide power to the automatic bellows for her furnaces. She was going to need her furnaces capable of extremely high heat in order to produce many of the initial materials she needed. As time was to go on, she anticipated she would no longer need these things, but for now, they were absolutely necessary for her work.

In all, there wasn't much to take. Mostly scientific instruments, the ones that were actually worth something, a few pots and pans for cooking, and other miscellanea like her old journals and photo albums.

Loading up her saddle bags she trotted off, leaving her old residency behind, moving towards a brighter future.

A knot of frustration formed in her chest as soon as she opened the door.

"Surprise!" came the familiar sound of... everypony in Ponyville.

"Why didn't you warn me?" asked Twilight inwardly.

"You did not ask. I no longer try to offer information you have not asked for."

Twilight audibly groaned.

"Come on Twilight, all your friends are here," said Spike, walking towards her. "You said you would let Pinkie throw a party when we were done, and we're done!"

"Yeah, Pinkie's been dying to throw a party for you for months," said Rainbow Dash. "It was hard trying to keep her from throwing it earlier."

The offending pink pony bounced towards Twilight and said in a sing-song voice, "And now this is gonna be the best party ever!"

Twilight groaned again. She did *not* want to have to do this right now but it looked like there was no way out of it.

"What's the fastest way to get this over with," asked Twilight.

"I could offer possibilities, but the future is difficult to predict. It's always in flux, and beings with Pneuma can make unexpected choices and decisions."

"Yes yes," said Twilight, becoming even more aggravated. "Just do your best."

For the first time, Twilight saw Mephistopheles's facial expression change. He frowned. "I don't like it," he said. "I shouldn't. I won't. I'm not here to actively do things, that's what you are to do. If I were to give

you advice for things I don't *know*, it might as well be me who is doing it."

Twilight couldn't contain her frustration any longer.

"I don't have time for this!" she shouted. "Out, out, everypony out! Come back later, preferably never!"

It was like somepony blowing all the candles in a house at once. Instantly the sounds of the party died.

Everypony was staring in shock, except for Spike and Twilight's friends who had a look of concern.

Twilight glared.

"Well? Didn't you hear me?"

"Ahem, Twilight," said Applejack stepping forward. "Maybe we oughta talk about this in private real quick." Her voice has a sense of finality to it that made Twilight think that if she fought this, Applejack would fight back.

Twilight's ears lowered and she looked around. All the ponies had shifted to looking concerned now, and Twilight had the distinct impression that they were right to be. Was she going crazy? It didn't feel like it, she just had a lot to do. Canterlot wasn't built in a day, and she had way more than Canterlot to build. Was it her fault she wanted to actually live to see her work come to fruition?

But she didn't have to be so mean about it either.

"I'm sorry... of course Applejack."

Applejack nodded before looking back and saying something to Twilight's other friends. Twilight asked what was said, as she couldn't hear it, and Mephistopheles replied "She'll be fine in a jiffy, you'll see."

Twilight tried to not show her sudden annoyance at the implication that something was wrong with her, as they stepped outside.

The sun was going down. Night would come soon. There were fireflies only just recently arrived, floating around the street lanterns, their lights blinking in and out. Twilight swished her tail back and forth absentmindedly as the mosquitoes were coming out as well. Other than Applejack and Twilight, nopony could be seen in any direction.

"Twilight," said Applejack, getting right to it. "We're worried about you. You haven't relaxed in months, and to make things worse, you haven't let *us* relax in months. We thought things would get better now that the house is done, but just now you showed us we were wrong. You need to relax. We need to relax." She sighed softly. "I understand how important work can seem. Sometimes it can feel like without you there working and holding everything together, the world will crash around you. But that just ain't how it really is. You gotta take a breather every once in a while. "

Green eyes met violet as Applejack finished speaking, and Twilight felt herself crumble under the gaze. Applejack was right. Just like the Princess had been right, and Spike had been right. She was working too hard. She was forgetting her friends. She was becoming worse than she ever was back in Canterlot. She needed to slow down and smell the flowers every once in a while, and it took Applejack's total honesty for her to see it. Twilight knew that of all her friends, she could trust what Applejack had to say the most.

Twilight sighed and looked down, ears folded back and head hung low.

"You're right AJ," she said. "You're completely right. You and everyone else. You didn't deserve what I said earlier, I shouldn't have tried to kick you out, and I do need to relax and spend time with my friends."

Twilight looked back up when she felt a hoof on her shoulder. Applejack was smiling at her.

"Well I'm glad you see things better now," said Applejack. "Now come on, we can go back inside and

everything will be okay."

Twilight nodded and followed AJ back inside. After apologising, the party went on as it should have in the first place. Twilight did her best to just forget about everything and lose herself in the relaxation only one of Pinkie's parties could bring. She played games, danced, chatted and had fun with all her friends and the other ponies in Ponyville. Nevertheless her mind continued to wander back against her will, back to that glorious version of Ponyville she once saw in her dreams and how she was the only one who could make that dream a reality.

The next day Twilight woke up refreshed and feeling pretty good, all things considered. Sleeping in her new house wasn't any different than any other place, and her routine seemed to be the same. She woke up, found Spike was already up, cleaning the mess from the party before, with breakfast already at the table in the small kitchen. Twilight said, "Goodmorning" as quickly as possible before devouring her breakfast and heading to the main room.

It wasn't a real living room. It was a workshop. And she could finally get to work. No more waiting for construction, or loans, or supplies, or parties. Now was the time, the true first step on the way.

While Spike spent his time cleaning, Twilight set to work. First she had to get everything ready. Everything in its place. There was no good reason to keep everything stored up until the exact time she needed it. So Twilight set to work. This was going to be a very simple thing, a gift to Celestia and a demonstration of what could be done.

It was a simple device. Twilight brought out a block of glass, an equal sized block of silver, some gold nuggets and a bunch of silver she previously had worked into spikes from a metal smith. First, she needed to make two gold needles. She grabbed a gold nugget, and with a hammer lifted magically, pounded it as hard as she could. The table was sturdy, but the other items on it rattled in protest of her



actions. Spike poked his head out of the kitchen to see what she was doing, and Twilight took a moment to say everything was alright. After he went back to his work, Twilight pounded the gold again. And a few more times. This was very pure gold, soft and malleable, and it flattened relatively easily, though she worried for the table.

Shrugging, she took the flattened piece of gold and moved it to a nearby anvil and began hammering there. It produced a much better, softer sound that didn't shake anything. Plus, the gold flattened much easier now. She was stupid for not doing this in the first place.

After it was sufficiently thin, she grabbed a pair of tinner's snips and cut her new gold sheet into quarters before discarding three fourths of her product and placing the remaining one fourth back, square on the anvil. She hammered some more, and it was then she was very happy to be a gifted unicorn. This would be very difficult without magic.

Eventually she ended up with a sheet of gold as flat as she felt she could possibly make it. It would have to do. Snipping off two strips she then took the strips back to the table with a set of pliers. Carefully she rolled the strips vertically onto themselves and crushed the folds together as to end up with two thin gold tubes. Bringing up the snips she cut them at both sides, and tried to use her magic to smooth the edges. It helped, but only a little. Finally, she got a file and filed down the edges on one side, producing needles.

Happy that they were as good as she was going to get, she set them aside and picked up her block of silver. Silver too, was easy to work with at room temperatures, and all Twilight needed to do was to drill two holes in the block just big enough for her make-shift spikes to fit through. Picking up a drill, she began her work.

It was a long arduous process, but eventually she got the holes in. Slowly she placed her needles in. They

fit fine, not too loose, and she didn't have to squeeze the gold to get them in either. Lastly, she took a bowl and put some cinnabar dust into it. Adding water, she ended up with cinnabar paint. A small brush was all that was needed to paint a thin line between the two gold needles.

With that half out of the way, the last task that remained was to fix the sender. This would be easier as everything was already worked. She simply added two silver spikes to the previously prepared glass block. Easy.

Technically, she was done. But she had a flash of inspiration to make the device even better, though it occurred to her mid-work and so she had to go back down and get extra supplies. A thin plank of wood was brought up, as well as several metal gears and levers, and the tools to fasten them to wood, along with simple glue.

Spike had at some point finished his work and was busy staring from behind her, puzzling over what she was doing. Lucky he remained silent, and so Twilight was content to let him stay.

Her work was long, but relatively simple. This was the kind of craft work she would have done as a filly in a science fair. It's one of the reasons she chose to build this first.

When she was done, she had her block of glass fixed atop a wooden plank. Also on the wooden plank was a system of small gears and bits of metal that fixed a metal arm parallel to the block, above it, ending between the two metal spikes. The arm had a line of cinnabar paint affixed on it between where the spikes were. The arm was divided into two sections, an inner and outer section. One could snap the outer sides of the arm down to connect to the silver spikes, and the inner piece of the arm remaining could be pushed down to complete the line between the spikes. Without pressure, it would move back up on its own, and what would be left would be a broken line between the spikes.

Twilight smiled approvingly at her work.

"What have you made?" asked Spike. He stepped forward to get a closer look.

"I call it a telegraph," said Twilight. "It can send messages between the two blocks at a distance. Very primitive, but it gets the job done."

Spike looked at the two blocks in bewilderment.

"How does it work?" he asked.

Twilight smiled, eager to explain this to someone.

"I'll show you," she began. Her horn glowed a bit as it checked local Xi flows. She then places on block at one end of the table at a certain angle, and the other block at the other end. She then said, "One block is the receiver, one is the sender. This block here is the sender." She indicated the glass block. "Glass has a very low natural Affinity to Silver. In plain language, it acts upon it due to an innate attraction. Now, first we snap the sides of this bar down in place." She did so, and they clicked into place. Spike didn't notice the Receiver block had changed. "Now it's ready. On the Receiver block you'll notice there is a now a break in the cinnabar line between the two gold needles." Spike looked, and saw that it was true. "That cinnabar line will now mirror this one. I've set it up so that in order to complete the line on this side, I just have to press down on this here." She pressed on the middle section of the metal arm, completed the line. Over on the other side of the table, the Receiver block's line completed on its own.

"Wow," said Spike. "But I don't get it. If you build more of those Receiver blocks, do they all copy that one Sender block?"

Twilight shook her head. "These two are connected because they are currently in the same Xi flow. It's not hard to put two things in the same flow however, so it's nevertheless unsecure. This device could be

made better by building a unique, stronger affinity between the two blocks, but... well, it'd take a lot of explaining why I shouldn't do that, suffice it to say that once you do that you might as well go for something better."

Spike nodded though he didn't really understand.

"So how does completing and breaking a line send messages?" he asked.

"A code could be made that's based on the length of time between completed lines forming. Originally I was going to make this with twelve pins and twelve spikes arranged to make six lines, and make it so that different combinations of broken and unbroken lines represented a different letter in our alphabet, but that'd be too much work for this little thing."

"Uh, Twilight," asked Spike.

"Yes Spike?"

"What good is this? I mean, you have me to send letters to Celestia or Luna, and everypony else has the post office. Why is this useful?"

"It's useful mostly in proving something. Do you know how you're able to send messages to Princess Celestia?" Spike shook his head. "It's the same basic principle as teleportation, or this device. Your breath forces an affinity between where the letter is and in front of one of the princesses. It follows the Xi flow and shows up at the end. Simple. Same with this. This demonstrates how that works. Plus, not everypony has a dragon assistant, and this is instant communication, while mail can take days to reach its destination."

"I guess I understand," said Spike.

Twilight mailed both parts of the Telegraph to Princess Celestia the next day. It was for the princess, not

one of the ponies who didn't listen to her. She also began work on another project, this one far more important and wide-reaching than a mere communication device.

She required a lot of specialised help for this though, and had to seek the employ of a goldsmith. She left him *exact* instructions on a silver pendant, and the materials to make four of them (which consisted of cinnabar paint, gold, and silver). While he was following her instructions, she moved on.

Taking long bars of gold she started her furnace, making sure the fire was hot and pure. She had to enclose it so impurities couldn't get in, and she then placed gold bars in a slot above the fire, exposing them to the pure flames. Several hours later she had created a new substance. Fire-Gold. Its uses were never-ending. With enough of this she could do many things.

Spike saw it and immediately knew it was something special, as the air around it rarefied and caused an odd optical affect.

"What is that?" he asked.

"The future," said Twilight. "It's the future."

