Witch 19

Chapter 19 Lessons

After entering winter, the first rain finally fell. The rain had already lasted for two days without stopping.

Roland leaned over his desk and looked out of the window. The rain was blown upwards by the wind, hitting against the glass again and again, creating bursts of ripples. Under the refraction of the ripples, the image of the small town became distorted. The houses and the streets were bent in deformation, without any regular form. Due to the lack of any effective drainage measures, the stone roads were interlocked with streams of flowing water, from afar, it resembled many brooks of clear and crystalline water.

The distant mountains and forests were obscured by mist, and were faintly discernible, just like the border to the human world.

If such a landscape was placed into modern times, it would certainly be a tourist attraction, but what Roland wanted to see was a jungle made of concrete and steel. Because of the rain, the city wall construction also had to stop. This let his feeling of success, which he got on the day before yesterday when he "discouraged" the stronghold messenger, fade away.

"You just said that the air around us is made up of many different kinds of gases, is that true?"

Anna's clear voice had interrupted Roland's thoughts, and when he looked towards her, Anna blinked her beautiful blue eyes questionably.

"Ahem, Miss Anna, you should address His Highness with honorifics," warned Carter from the side.

"Don't be so particular about it," Roland turned around, "she is now my student." During the rain, he had called for Carter and the two witches to attend their own class – yes, he had decided to open a course of natural science. He was inspired by Stonemason Karl's college. If even a mason can open a school, then could a mechanical engineer open one too? Why did discrimination exist? Wasn't it because of ignorance? Universal education was at any age the most effective measure to promote the development of civilization.

He originally also wanted to call the assistant minister, but since he was busy with other government tasks, he declined. Roland didn't know why, but since the beginning of winter Roland felt that Barov seemed to be filled with special enthusiasm, even almost supervising Border Town all alone.

When hearing of the possibility to learn new knowledge, Anna's eyes immediately sparkled with interest. Nana, who didn't need to treat wounded animals during the lessons, also became very happy. Carter, who was idle at the moment, attended the class to see what new nonsense the prince had thought of.

But not long after the class had begun, the knight's eyes became lax. Nana's look also became distant, staring only at the two words 'Natural Science' in a daze. Although it seemed that Anna could not completely understand it, she still tried hard to remember everything. Roland had to pause his lecture for a moment to let the three people digest his teaching.

Hearing Anna's question, he smiled and nodded, "Of course, even though they look alike."

"Your Highness, I do not understand, since every gas looks the same, how can you know that there are different gases?" Carter expressed his doubts.

"I can even prove it to you."

Roland knew that even with these easy to understand words, most of the people would be confused by the theories.

He decided to use a simple experiment to arouse everyone's interest.

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A candle, a glass, a basin, a bowl of limewater – these were the things he had prepared in advance. Although at this time they had only pale brown glass, far less transparent than the glass of his former time, it was still transparent enough to be used. After all, this simple test didn't need someone to observe the changing process.

Roland had done this test before once, the test results showed that although there was magic in this world, the rules of nature were still the same as on Earth. He asked Anna to light the candles, and then he put it in the basin.

"When something is burning, it needs to consume gas. This gas is also closely linked with every living organism, if we stop breathing, we will be like this candle. Watch." Roland put the glass on the candle, and after the flame shook two times, it soon went out.

"It exhausts the air, sir, this is not surprising." the chief knight spoke in a disapproving way, "Of course we will die without air. For example, if we fall into water."

Nana also nodded.

"So, do you think that there in the glass is nothing at all?" Roland asked, then he poured the limewater into the basin, the limewater soon flooded into the glass, but it finally stopped when only half was filled.

This experiment was so classic that most elementary school teachers liked to use it as an experiment to increase the interest of the children in natural science. Roland could still remember the shock he felt when his own teacher had demonstrated it. From then on he embarked on the road of science and engineering, with no way to return.

He gently lifted a corner of the glass, and after a few moments bubbles of air could be seen rising out of the limewater.

Then, the clear limewater appeared to be a little bit cloudy, and a little white cloud slowly spread within the glass.

"If there was nothing in the glass, we wouldn't have seen the changes in the limewater and the air bubbles. This shows that the air contains at least two different kinds of gases. In fact, burning a candle consumes only a part of the air, while the other part is unable to burn. Though it is colorless and odorless, like the former gas, its nature is the complete opposite."

"Well... That seems to be the case," Carter thought for a long time to figure out the relationship between the two, "but to know this, what is the use of it?"

"If you can get the former gas, you can let the flame burn longer, and when you obtain the other gas, you can quickly extinguish the flames!" Anna suddenly said.

She was simply a genius, Roland praised her in his heart. Even though there was a small fallacy, when hearing of the different properties of the gases, she could immediately think of several uses. This idea was definitely genius-level. Roland knew that she did not receive any modern education, but even without it, she could quickly think of this point, showing her extraordinary logic ability – at least she was far better than this chief knight.

"Right, it is possible to say that since humans learned to use fire, they were separated from the animals, even though obtaining fire was just a coincidence. Perhaps the lightning hit the trees and lit them, perhaps a rock hit another rock and released a spark. But if no one had noticed it, no one could have tried using it. We would still be the same as the animals. Roland guided them patiently and systematically in the direction he wanted, "The goal of this experiment was to show you that curiosity and thinking were the driving forces of human progress. There are many of similar potential forces in nature, only waiting for us to discover and use them."

After his speech, Carter still had a doubtful look. Nana was one of those types where it was unknown if they were asleep or awake, and she only looked at Roland with open, unfocused eyes. Only Anna bowed her head, as if she was thinking about something.

Well, Roland sighed, indeed, teaching too far ahead of the ideas that they understand will not bring enlightenment; it will only make people feel perplexed. The height of their knowledge determined that they couldn't understand the powerful force of nature unless it was physically in front of them. Then they would understand how amazing the nature of the hidden forces in the world were.

At this moment, the kettle hanging from the mantel gave off a clanging sound, it was the sound of a steam pinging against the lid.

"Ah, the water is boiling." Carter walked over to remove the kettle with a fork, and soon the sound stopped. He took a piece of cloth and wrapped it around the handle, then filled everyone's cups with water.

For example, when Roland reached out with his hand to hold the cup, he could feel the temperature of the cup wall. From the first day of using fire, the principle of boiling water was known. "Boiling water", hundreds of thousands of people had witnessed this and used it but no one thought that the gently curling and rising water vapor could also contain such a tremendous amount of energy.

In a few hundred years, this would become the driving force behind humankind's development; in a very short period of time it would change the history of mankind. Although the principle was simple, the problem was not the limited technology. No, the problem was that the first choice for most people was to farm. But Roland was different from them, he thought, this world also had witches. Using magic to fight in a battle? That was only the way of barbarians... with magic someone could create, it could replace some of the key technologies to hasten the process of human development. This was the correct way to use magic.

They talked until the sun went down, and after they had eaten dinner together, Roland went to his bedroom.

There was no nightlife to speak of in this day and age, people didn't even have a word for it, and everyone went to sleep early. He also considered using his right as the prince to recruit a maid to do the sport, but in the end he couldn't because he was too thin-skinned to speak out.

Just as he had lit the candle in his room, he could hear behind himself the sound of applause, then someone spoke to Roland, "It was a spectacular lecture, I did not expect that his royal highness the 4th Prince was actually a learned man."

It was the voice of an unknown woman. Instantly Roland could feel cold sweat, only god knew how a stranger could get into his room without his knowledge, if not an assassin what could she be?! He immediately ran towards the door, even before he had the time to put his hand on the doorknob, he could feel a cold wind blow near his ear. He discovered that a silver dagger was firmly inserted into the door, the distance from the dagger to his cheek was only one finger wide.