

## TECHNOLOGY 51

Previously, Landon had allocated all the new workers towards the construction industry.

He had made up his mind that, the next batch of slaves that Santa brought would be sent over to the other 2 industries.

But right now, he needed people who could build.

Today, he wanted to make Synthetic rubber.

Every week....Landon had to give first aid to treat the workers in the mines.

Although he had made them mine carts that were on rails, they still injured themselves.

When they had to carry the stones and load the cart, some of them would accidentally drop them on their feet. This had been happening for a while now.

Even the working gloves in this era, was trash. It could only block 60% of the injuries they were getting on their palms.

The gloves were not effective.

They would wrap alot of clothes around their palms.. and then wear normal thin material gloves over them... What could that do?

That's why the first thing Landon had thought about was safety. Hence the manufacturing of rubber.

Back on earth 90% of products had rubber in them. From bicycle handles to housing and pipe insulation, school stamps.. heck, even toothbrushes were made from rubber.

There was no way that he would allow the scientist the lab to keep working without gloves or other protective gear.

For now, they hadn't touched any corrosive substances. But what about the future? Was he going to let their skin burn?

He needed to make thick rubber boots, rubber gloves, earmuffs, eye shields and even helmets.

Infact, Landon didn't believe that anyone could start building an advanced empire without any safety gear.

F\*\*\* this shit!! this wasn't a wuxia novel. They were real people who could die at anytime.

Plus, previously, there was no doctor or nurse available. The people used to just wash the wounds with water and tie it with a piece of clothing.

Landon took up the duty as an Industry nurse and gave them first aid treatment whenever they were injured.

Due to the systems first reward about farming and crops, Landon knew what herbs were medicinal to their injuries.

Now, that there were 7 doctors and 14 nurses, Landon had assigned each doctor with 2 nurses.

He assigned each doctor to different stations. 3 for the 3 industries in the Lower region, 1 for the military, 1 for the school and 2 would remain at a new estate which Landon had given as a hospital.

While they were on duty, they read the chemistry and mathematics textbooks that his highness gave them.

Landon wanted them to start understanding things like matter, reactions and so on.

Chemistry and math were used in every profession.

They needed to know about ions, protons and so on.

The human body has over a hundred chemical reactions happening at once. They needed to know about reversible and irreversible reactions, metabolism and so on.

Even drug making and pharmaceuticals dealt with a lot of chemistry and math.

He wanted to prepare them for when he would finally teach them new techniques and give them biology textbooks. That would be once he got his reward from the system.

Even if he was rewarded today by the system, Landon wouldn't teach them anything unless they studied these ones first.

With other departments, they could learn on the job quickly... but this one dealt with human life and health. He wasn't going to teach them how to perform surgeries if they couldn't understand the basics.

The nurses also have to learn as well. They should be able to identify drugs and medicine. As well as administer the treatment with syringes and so on.

They could also do surgeries as well. They assisted the doctors within the surgery room, so they too had to know what was being done.

What if the doctor was a quack and was about to inject poison into someone's bloodstream? Where they just suppose to watch? Nahh!! It was their bound duty to know what ever is done to the patient.

In fact Landon had made up his mind that, when he finally taught them everything, they would have to make an oath towards their profession and Baymard.

He wasn't taking any chances.

Oaths in this era, were sacred and Holy. It was the highest form of loyalty one could place.

With the help of the doctors, Landon was able to let go of nursing duties for the lower region and around Baymard.

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"Tim, are all the equipments and vessels built?"

It had been a week and 3 days since Landon had asked Tim to create these vessels. On the same day that he had asked the system to get crude oil, he had asked Tim to start construction immediately.

"Yes your highness, Its completed".

"Good.... Get 1200 people from the new workers in department 4 and let them fill the first tank with petroleum oil".

"No problem your highness", Tim replied and made his way out.

Once they had filled up the tank, Landon decided to start.

Landon and the assigned workers, refined a mixture of petroleum oil, coal and the solvent hexane.

They piped the ingredients through 3 columns, to boil off any residual water. Essentially purifying them.

Then, they combined and refined them with a catalyst. And after a while, synthetic rubber was produced.

Tim and the workers looked at the white milky product and wondered what could be made from them.

Once the first set was produced, Landon showed them how to store and handle the products.

"Tim, All 2,000 workers will stay here to make these products..."

Landon said as he handed over the a ton of papers to Tim.

"I will show you what to do and how to use the other equipments to produce the products."

Different rubber products needed different chemicals to be added to them.

There were 5 major chemicals needed for all different rubber products.

So Landon had the storage tank of the milky liquid rubber, connected to 5 outlet pipes as well.

The outlets would lead to different stations within the rubber department.

Landon decided to start with one of the most difficult products.. rubber tires.. preferably construction machine tires.

Landon manually opened the valve, for the pipeline between his station and the storage tank.

Soon, the creamy liquid rubber and headed towards the tank next to him. Once he felt like he had enough, he closed the valve.

Landon then added, Silica, bis (triethoxylypropyl) and carbon black to the creamy rubber.

Landon had built a 'Steam/water mixer tank', that would constantly mix any thing, provided water is used as its fuel.

He then added water to the mixer engine, and after a while, it started stirring the materials in the tank vigorously.

The mixer head resembled egg beaters.

These mixers should never be turned off, unless there was nothing in the tank. So Landon decided to have the men pour water every 3 hours.

Once the mixture was uniform, Landon opened another valve that allowed the creamy mixture, to flow towards another boiler tank. Where another solvent mixture and water were added.

As he boiled off the solvent, the rubber starting forming tiny balls that were the size of beans.

Once the solvent had completely evaporated, all that was left was water and bean size white balls.

He then sent the products to another vessel, which acted as a filter. And finally the rubber was sent to a steam compressor to completely dry down.

Now the rubber looked like soft rice balls.

Landon had the men form bales of tire synthetic rubber.

He then took out 1 of those bales, reheated it, and used polychloroprene and other chemicals, to completely vulcanize it.

After creating a mold for the tire, he poured the vulcanized rubber into mold and allowed it to cool down for 4 hours.

While it was cooling down, he showed them how to make other rubber materials.

And by the end of the day, Landon had made 4 pair of gloves, a pair of rubber boots and 1 gigantic tire.

He had also made a lot of dried bales for each rubber product.

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Now he could progress he could safely progress with his plans