

Welcome to the Romance of the Three Kingdoms Podcast. This is episode 131.

Last time, Zhuge Liang was hoping the sixth time would be the charm as he launched yet another Northern campaign. Standing in his way was his old foe, Sima Yi. And this time, Sima Yi actually caught wise to Zhuge Liang's tricks. Zhuge Liang was planning to fake an attack on the Wei camp on the northern plain while launching a real attack on their pontoon bridges on the Wei River. But Sima Yi saw through the scheme and prepared accordingly.

First, he told his vanguard generals Xiahou Ba (4) and Xiahou Wei (1), "If you hear commotion from the northern plain, lead your troops to the hills to the south of the river. When enemy troops approach, attack."

Next, he sent the generals Zhang Hu (3) and Yue (4) Chen (1) to lead 2,000 archers and lie in wait on the north bank near the pontoon bridges, with orders to bombard the Shu forces with arrows if they tried to approach on the river.

Then, he told the generals Guo Huai and Sun Li (3), "Zhuge Liang will encroach on the northern plain to cover up his real attack on the river. You have just set up your camp and don't have many troops. Hide all of them in an ambush along the road. If the Shu forces cross the river in the afternoon, they will attack you around dusk. Pretend to fall back and lure them into pursuit. Then hit them with arrows. I will be advancing on land and water. If the enemy arrives en masse, just watch for my command and attack."

Finally, Sima Yi ordered his two sons, Sima Shi (1) and Sima Zhao (1) to lead a force to reinforce the front camp, while Sima Yi himself led an army to reinforce the northern plain.

Meanwhile, Zhuge Liang was proceeding with his plan, not knowing that Sima Yi had caught on. He sent the generals Wei Yan and Ma Dai to cross the river and lead the assault on the northern plain. He sent the generals Wu Ban and Wu Yi (4) to lead the rafts to go burn the pontoon bridges. Then, three

forces were sent to attack the enemy camp on the bank of the Wei River. The front column was led by Wang Ping and Zhang Yi (2). Jiang Wei and Ma Zhong led the middle column. Liao Hua and Zhang Yi (4) led the rear column. Everyone set out at noon and crossed over the river and went their separate ways.

So first let's follow Wei Yan and Ma Dai on their assault of the northern plain. They approached the Wei camp as the sky was getting dark. As soon as the Wei general Sun Li saw them, he abandoned camp and fled. Now Wei Yan was an old hand at this, so he immediately sensed a trap and ordered his troops to fall back. But it was too late. Loud cries rose up all around. From the left charged out a force led by Sima Yi, and from the right charged a force led by Guo Huai. Their attack drove most of the Shu soldiers into the water. Wei Yan and Ma Dai managed to fight their way out with some tattered troops, and fortunately for them, their comrade Wu Yi arrived with some rafts and ferried them back to the other side of the river, where they managed to hold their ground.

While this was going on, the Shu general Wu Ban was leading the other half of the rafts down the river to burn the pontoon bridges. But as soon as they got near the bridges, they were met with a hailstorm of arrows. Poor Wu Ban was hit by an arrow and fell into the water to a watery grave. His men all abandoned raft and swam for their lives. So all the rafts ended up in the enemy's possession.

Now, let's skip over to the Shu generals Wang Ping and Zhang Yi (2). They still had no idea of what was happening with their comrades on the northern plain. So they headed to the Wei camp around 9 o'clock that night. Suddenly, they heard cries all around.

Wang Ping said to Zhang Yi (2), "We have no word about the army attacking the northern plain. And we're right in front of the camp on the south bank of the river and yet there is no sign of the enemy. Could Sima Yi have found out our plan and made preparations? We must wait until we see the pontoon bridges catch on fire before we attack."

Unfortunately for them, that signal would never come. Instead, a rider soon galloped onto the scene and told them, “His excellency is ordering everyone to fall back. The attacks on the northern plain and the pontoon bridges have both failed.”

But before Wang Ping and Zhang Yi could fall back, the Wei forces had already sneaked behind them and now charged out to attack, their torches lighting up the night sky. The two sides scrummed. Wang Ping and Zhang Yi eventually managed to fight their way out, but not before losing most of their soldiers. By the time Zhuge Liang pulled his forces back to base camp at Qi Mountain, they had lost more than 10,000 men. So we just witnessed the rarest of rarities: Zhuge Liang just getting straight up out-maneuvered on the battlefield.

Zhuce Liang was brooding over the setback when the senior official Fei Yi arrived from the capital to check on him. After welcoming him in, Zhuge Liang said, “I have a letter that I would like to trouble you to deliver to Dongwu. Are you willing?”

“I would never dare to refuse your excellency’s order,” Fei Yi replied. So he proceeded to the key Dongwu city of Jianye (4,4), where the emperor of Wu, Sun Quan, was based. Fei Yi presented Zhuge Liang’s letter, which asked Sun Quan to help the northern campaign by attacking Wei on its other frontier.

Sun Quan was down with this proposal, and he told Fei Yi, “I have long wanted to mobilize my troops, but haven’t had the chance to coordinate with Zhuge Liang. Since he has sent this letter, I shall personally lead a campaign and mobilize 300,000 men. We’ll set off right away.”

“If that be so, the Heartlands will fall in no time,” Fei Yi replied.

Sun Quan then threw a welcome banquet for Fei Yi. During the feast, Sun Quan asked Fei Yi, “Who does your prime minister use to lead the charge against the enemy in battle?”

Fei Yi told Sun Quan that it was Wei Yan, but Sun Quan smiled and said, "He may be brave, but his heart is not right. As soon as Zhuge Liang is gone, he will become trouble. How can Zhuge Liang not see this?"

"Your highness is quite right," Fei Yi replied. "I will relay your words to Zhuge Liang as soon as I get back."

Once he returned to camp at Qi Mountain, Fei Yi informed Zhuge Liang that Sun Quan was going to mobilize 300,000 men to personally lead a campaign and attack along three routes. When Zhuge Liang asked him if Sun Quan had said anything else, Fei Yi relayed the warning about Wei Yan.

"What a wise lord," Zhuge Liang sighed. "It's not that I don't recognize Wei Yan for what he is. But I keep him around on account of his valor."

"Your excellency should take care of this matter sooner than later," Fei Yi said.

"I know what to do," Zhuge Liang told him. Fei Yi then took his leave and returned to the capital.

Now, Zhuge Liang assembled his staff to discuss how to advance. As they were talking, word came that a defector from the enemy camp had arrived. Zhuge Liang summoned him, and this man said, "My name is Zheng (4) Wen (2), and I am a lieutenant general in the Wei army. Recently, I have been co-leading our forces with a general named Qin (2) Lang (3) and serving under Sima Yi's command. But Sima Yi, out of sheer favoritism, appointed Qin (2) Lang (3) to lead his front column while treating me like dirt. I couldn't bear this injustice, so I came to surrender to your excellency. I hope you will take me in."

Just then, word came that this defector's former comrade Qin (2) Lang (3) was outside, demanding to fight him.

"How does Qin Lang's skills compare to yours?" Zhuge Liang asked Zheng (4) Wen (2).

"I will go kill him right now," Zheng Wen replied.

"If you can kill Qin Lang, then I will have no doubts about your sincerity," Zhuge Liang told him.

So Zheng Wen rode out of the camp to take on Qin Lang while Zhuge Liang looked on. Qin Lang, hoisting a spear, cursed Zheng Wen.

"You thief! You stole my horse! Return it at once!"

As Qin Lang rode toward Zheng Wen, Zheng Wen wielded his saber and rode up to meet him. After just one bout, Zheng Wen cut down Qin Lang, scattered his troops, and brought his head back to Zhuge Liang. As soon as he set foot inside the main tent, however, Zhuge Liang's face suddenly became flushed with anger.

"Take him outside and execute him!" Zhuge Liang told the guards.

"I have done nothing wrong!" Zheng Wen protested.

"I know what Qin Lang looks like," Zhuge Liang said. "The man you just killed was not Qin Lang. How dare you lie to me?!"

And now, Zheng Wen fell to his knees and fessed up. "That was actually Qin Lang's brother, Qin Ming (2)."

Zhuce Liang smiled and said, "Sima Yi sent you to pretend to surrender so that he would have a spy within in my ranks. But how can he deceive me? Tell me the truth right now, or I will execute you for sure."

Zheng Wen now spilled the beans about the whole plan and then cried like a baby and begged for mercy. Zhuge Liang told him, "If you want to live, then write a letter telling Sima Yi to come raid my camp. Then I will spare you. In fact, if I can capture Sima Yi, it would be thanks to you, and I will give you a high rank."

A high rank was the last thing on Zheng Wen's mind. All he wanted was to keep his head. So he immediately wrote the letter, and Zhuge Liang ordered that he be locked up for the time being.

A member of Zhuge Liang's staff now asked him how he knew Zheng Wen was lying, since surely he had not actually met this Qin Lang (3) before. Zhuge Liang explained, "Sima Yi is a good judge of talent. If he saw it fit to let Qin Lang lead his front column, then Qin Lang must have great skills. Yet Zheng Wen was able to slay his opponent after just one bout, so I knew that could not have been Qin Lang and that this was all a trick."

All the officers went "aaaaah" and were very impressed. Now, let's pause for a second and think about Sima Yi's plan here. Aside from the obvious flaw of, you know, trying to trick Zhuge Liang, this plan also seems kind of half-baked. I mean, you were going to send a fake defector to the enemy and then have him prove himself to them by ... what? Killing one of your top general's little brother? What kind of plan is that? And how did you ever get Qin Lang or his unfortunate baby brother to go along with it?

Anyway, we digress. Zhuge Liang now sent a clever, well-spoken soldier to the Wei camp with the letter that Zheng Wen had written. Sima Yi granted him an audience, and the soldier offered up the letter. After reading it, Sima Yi asked the messenger who he was.

"I am a native of the Heartlands," the messenger said. "I drifted into Shu territory. Zheng Wen and I are from the same village. Right now Zhuge Liang has rewarded Zheng Wen for his service by appointing him the vanguard general. He sent me to deliver this letter. Tomorrow night, when you see a fire, that is your signal to lead your main army to raid the Shu camp. Zheng Wen will help from the inside."

Sima Yi questioned the messenger closely and read the letter a few more times. Eventually, he was satisfied that everything was on the level, so he treated the messenger to some food and wine and told him, "Tomorrow night at 9 o'clock, I will go raid the Shu camp. If we succeed, then you shall have a high rank."

So the messenger went back and told Zhuge Liang that Sima Yi had taken the lure. Zhuge Liang then grabbed his sword, took a few paces, and said a prayer. Next, he handed out instructions to the generals

Wang Ping, Zhang Yi (2), Ma Zhong, Ma Dai, and Wei Yan. Then, he took an entourage of a few dozen men and found a nice perch on a high hill, from where he would command his troops.

Meanwhile, on the other side, Sima Yi was getting ready to go raid Zhuge Liang's camp with his two sons. But his elder son, Sima Shi (1), said, "Father, how can you venture deep into enemy territory on the strength of a scrap of paper? What would you do if something goes wrong? Why don't you let someone else go first, and you can follow with reinforcements."

Sima Yi thought hey you know what, that's not half bad. I am supreme commander after all. Why take the risk when I can let someone else do it. And that someone else was Qin Lang, whom he sent on ahead with 10,000 men to raid the Shu camp.

That night, the moon was bright and the winds were cool. But suddenly, around 9 o'clock, black clouds gathered and a dark mist filled the air. It was so dark that you couldn't see the person next to you.

"It is heaven's will that I shall succeed," Sima Yi rejoiced. So he sent his raiding party out. They marched in silence to the Shu camp. There, Qin Lang led the way as he and his men charged with a full head of steam and stormed into the enemy camp.

But guess what? No one was home.

Before Qin Lang could fall back, torches lit up from all around and loud cries of battle shook the earth. From the left came the Shu generals Wang Ping and Zhang Yi (2). From the right came Ma Dai and Ma Zhong. Qin Lang put up a dogged fight, but could not break free.

Meanwhile, Sima Yi, who was trailing behind with reinforcements, saw the flames and heard the loud cries, but he had no idea whether his men were winning or losing. So he just spurred on his troops as they marched toward the flames on the double. But suddenly, a loud cry rang out, followed by the

blaring of horns and the earth-shattering detonation of explosives. From the left charged out Wei Yan, from the right came Jiang Wei. Their two forces converged on the Wei army. The Wei troops suffered 90 percent casualties, and the rest ran for their lives.

As for Qin Lang and his 10,000 men, they were totally surrounded by the Shu troops. Arrows flew like swarms of locusts, and soon Qin Lang lay dead on the ground while Sima Yi and his defeated army fled back to camp. When 11 o'clock rolled around, the sky had cleared up again, and Zhuge Liang rang the gong from atop his hill to signal for his men to return to camp. So as it turns out, the dark clouds from earlier were conjured by Zhuge Liang as part of his trap. The trick worked, and Zhuge Liang returned to camp victorious. Oh, and then he had Zheng Wen executed. Yeah, so much for that promise of mercy and all that.

After the night's battle, Zhuge Liang sent his army to go challenge for combat every day, but the Wei forces refused to come out to get their butts kicked again. So Zhuge Liang personally went to check out the geography of the area to see if that gives him any ideas. And sure enough, it did. He came across a canyon. It was shaped like a gourd and could hold about 1,000 men. There was another canyon nearby that could hold another four or five hundred. Behind the canyon, where the hills overlapped, the road was so narrow that you would have to pass through it in a single file.

Zhuce Liang found this setup to his liking, and his guide told him that this place was called Shangfang (4,1) Gorge. When he returned to camp, Zhuge Liang summoned two officers and whispered some secret instructions in their ears. He then ordered them to take about 1,000 carpenters who traveled with the army and go into the canyon.

First, let's just dwell for a second on the fact that Zhuge Liang's army was traveling with 1,000 carpenters. So what were these guys doing in the canyon? Well, they were instructed to build something called "wooden oxens" and "gliding horses." So what the heck is that? Well, that's a darn good question, and everyone else was wondering about that, too. But Zhuge Liang wasn't telling. Instead, to make sure

nobody would find out, he next ordered the general Ma Dai to lead 500 soldiers to stand guard at the mouth of the canyon. He told Ma Dai, "Do not let any of the carpenters out, and do not let anyone from the outside in. I will come inspect the progress at random intervals. My plan to capture Sima Yi hinges on this. Do not let any word leak out."

So everybody snapped to as Zhuge Liang instructed. The carpenters worked, the soldiers kept a tight watch, and Zhuge Liang came to inspect the work every day. Then, one day, the adviser Yang Yi (2) told Zhuge Liang, "Our grain is stored at the Saber Pass, but it is difficult to transport them with porters and pack animals. What should we do?"

Zhuce Liang smiled and said, "I have long anticipated this. I have instructed our men to take the lumber that we had stockpiled and turn them into wooden oxens and gliding horses. It will be easy to use them to move the grain. These oxens and horses do not require food or water and can keep moving all day and all night."

Everyone on his staff was stunned by this, and they said, "In all of history, there has been no record of such a thing. What ingenious design does your excellency have for such strange objects?"

"I have already ordered men to build them according to the schematics, but they're not quite ready yet," Zhuge Liang told them. "But I will write out the specifications for you."

So, with everyone gathered around him, Zhuge Liang wrote out the following details about the wooden oxens:

The wooden oxen has a square belly and curved neck, one wheel in the center and four legs. The head fits into a collar. A braking lever, its tongue, connects to the belly, which is made up of two bins around the wheel. The heavier the load, the shorter its range. A single machine can go about a dozen miles a day, but a large pack can only go about six or seven miles a day. The curved part forms the oxen's head. The paired parts on either side are its legs; the transverse bar is its neck; the wheel is its feet; the top is its back; the square bins are its belly; the pendulum is its tongue; the bent strips are its

ribs; the incisions are its teeth; the erect pieces are its horns; the slender straps are its halter; and the leader is its reins. The bull is guided from between two shafts. For every six spans the porters advance, the oxen advances four paces. Each oxen holds a month's grain for 10 men. The porters will not tire, and the oxens will require neither food nor water.

And then he wrote out instructions for the gliding horse, which was basically the same principle, so I'm not going to read off those specs. You get the idea. When his officers read these specs, they all bowed and said, "Your excellency is truly divine!"

Now, as detailed as Zhuge Liang's specs sound, they don't exactly tell us what these things were or what they looked like. This is the epitome of that old story about how a bunch of blind men each described a part of an elephant in excruciating detail, but none of them knew what an elephant looked like. And honestly, I won't blame you for thinking that this was another one of those made-up anecdotes about Zhuge Liang to make him sound like the absolute bee's knees. But actually, there are historical records of Zhuge Liang constructing something called wooden oxens and gliding horses to transport his army's grain.

So, what exactly are these things? Well, nobody knows for sure because Zhuge Liang unhelpfully did not employ good data backup management strategies, so we don't have a blueprint. From what I could gather, there are a couple competing theories. The first is that these were literally wooden replicas of oxens and horses that somehow moved. The other theory, and the one that I think is more plausible, is that these were some form of wheelbarrows. Maybe Zhuge Liang dressed them up by adding little touches like bulls' horns and such, but at their heart, they were something with a wheel and handles for pushing. If you do a search on the Internet, you'll find pictures of different re-creations of what these things might have looked like, and they are all over the map, from a plain wooden wheelbarrow to something that looks like a full-on Trojan horse.

So anyway, back to our story. A few days passed and the wooden oxens and gliding horses were all ready, and true to Zhuge Liang's words, they moved like their real-life counterparts and scaled the mountainous terrain with no problem. When the troops saw this, they were delighted because 1) it meant they won't be going hungry, and 2) they won't be breaking their backs trying to lug heavy sacks of grain up and down these hills. Zhuge Liang now ordered the general Gao Xiang (2) to lead 1,000 men and use his new creations to transport grain between the Saber Pass and the army's base camp at Qi Mountain. These things were so impressive that we even a poem about it:

The gliding horses cleared Saber's steepest grades;
The wooden oxens took the gorge's sharp-pitched slopes.
Had later times such engines to employ,
Supply would never armies much annoy.

Ok, now that we're done serenading a wheelbarrow, let's go check in on Sima Yi. He had been holed up in his camp this whole time, waiting for the enemy to run out of provisions and leave. But then one day, his scouts reported back that the enemy was using something called wooden oxens and gliding horses to transport grain and that the task was now a cinch. This greatly alarmed Sima Yi.

"I have been staying on the defensive because I expected the enemy would have trouble maintaining their supply route, so I was just waiting for them to self-destruct. But now, their tactic shows that they're planning to stay here for the long haul. What should we do?"

So Sima Yi immediately summoned the general Zhang Hu (3) and Yue (4) Chen (1) and told them, "Take 500 men each and take the backroads along Xie (2) Gorge. When you see the enemy with their

wooden oxens and gliding horses, let them go past, and then attack. Don't get greedy. Just capture a few of the devices and report back."

So Zhang Hu and Yuen Chen (1) had their men disguised as Shu soldiers and sneaked down the backroads at night. As they lay in wait in the gorge, they spotted the Shu general Gao Xiang escorting some wooden oxens and gliding horses and heading their way. Once the Shu convoy had passed them by, the Wei soldiers attacked. The Shu convoy was caught off guard, so they ditched their machines and ran. Zhang Hu and Yue Chen then returned to camp and reported their success.

Upon inspecting his new prize, Sima Yi was quite impressed with the machines. But he also had a brilliant idea. Zhuge Liang isn't the only one who knows how to make these things. I do, too ... now that I've stolen his design. So Sima Yi ordered his own craftsmen to take apart the machines and reverse engineer them. See, cribbing foreign technology is a time-honored tradition in China.

Within a couple weeks, Sima Yi's men were able to construct more than 2,000 of their own wooden oxens and gliding horses, and they worked just like Zhuge Liang's. Sima Yi now put an officer in charge of these machines and used them to transport grains from the region of Longxi (3,1), ensuring a continuous supply route. All of his soldiers were delighted at this because it meant that they, too, now could avoid the backbreaking labor of lugging heavy sacks of grain.

Meanwhile, the Shu general Gao Xiang returned to camp and told Zhuge Liang about how Sima Yi stole their technology and that you really should consider slapping "patent pending" stickers on these things. But Zhuge Liang laughed and said, nah, that's exactly what I want him to do.

Huh? What? Why? To see why, and to watch Zhuge Liang and Sima Yi duke it out over the finer points of intellectual property rights, tune in to the next episode of the Romance of the Three Kingdoms Podcast. Thanks for listening.