

TO KEEP YOU INSPIRED...

This section of the newsletter is aimed at getting us up from the daily grind of our work. Consider it like climbing a mountain and inhaling the fresh air at the top while appreciating the view below. Once in while we all need to get perspective and this is what this section aims to do.

Below is an excerpt from **The Boy who Harnessed the Wind** written by **William Kamkwamba and Bryan Miller**.

The synopsis is that William Kamkwamba was born in Malawi, a country where magic ruled, modern science was a mystery, hunger and drought were a daily reality, and hope and opportunity were hard to find. Faced with crippling adversity and unable to afford the tuition to pursue his passion for science at school, William had a 'crazy' idea.

With only a few old text books and incredible determination, William constructed a crude windmill. This unlikely contraption would prove to be the small miracle that would eventually bring electricity and water to William's village, changing the community and transforming the lives of those around him.

Gilbert and Geoffrey showed up around seven the next morning.

The windmill's frame weighed about ninety pounds, and I knew the only way we would get it to the top was to use some kind of rope and pulley. I didn't have a strong enough rope, so I used my mother's thick clothesline wire instead. Detaching the clothesline from the posts, we then fastened it to the windmill's bamboo handle.

Taking the other end, I climbed the tower and hooked the wire over the top rung, then dropped it down to Gilbert. Geoffrey stood below on the middle rungs to guide the machine as it went up. Standing there, I could see across the top of the acacia tree to where the patchwork fields joined the highlands.

"Okay, Gilbert," I yelled. "Bring it up!"

Carefully, he began pulling the wire. First the windmill's handle lifted slowly, then the frame rose and wobbled into the air.

"Easy now!"

The three of us pulled at the wire with all our strength.

"Come on, guys," I shouted, "let me see your muscles!"

"I'm pulling all I can!" Gilbert said, straining with the clothesline.

"Don't let it slip Geoffrey."

"You do your job and I'll do mine!" he replied.

Little by little, the windmill made its way up the tower. With each pull, it swung slightly and banged its cumbersome blades against the tower's wood frame. A couple of times it got tuck on the tower rungs, and Geoffrey had to knock it loose.

"Don't let the blades break!"

"I got it!"

It took about half an hour, but we finally had it close to the top. When the handle came within reach, I grabbed hold and screamed down to Gilbert: "Tie it down!"

Gilbert looped the wire around the base pole and the windmill's handle. Once I had a good grip, Geoffrey joined me at the top to secure it into place.

The day before, we'd drilled two holes in the wooden poles using hot bolts from a bike hub. (Drilling flat bolts into an eight-inch wooden pole with my cooking-fire drill takes a long time to do.) We'd also taken the bicycle to Godsten's shop and had him use his welding torch to blow two corresponding holes into the frame's crossbeam.

As Geoffrey pulled the bolts, washers, and nuts from his pocket, I held the windmill steady and aligned the holes. I could feel the machine straining in my hands.

"Make it fast, this thing is heavy!" I said.

I'm trying. Just be tough and let me finish."

Geoffrey inserted the bolts and tightened them with the wrench. Once the windmill was fastened, we looked at each other and smiled. It felt sturdy and very strong. Sweat poured down my face and cooled with the breeze. I could hardly wait to watch the blades spin.

While Geoffrey made his way down the tower, I remained atop my perch taking in the scenery. To the north, I could see the iron-sheet roofs of the trading centre and the brown row of huts that sat behind the main road. Then something strange began to happen. A line of people began trickling through the alleys from the shops and heading in my direction. They'd seen the tower from the market and were walking toward my house. Within a few minutes, a dozen people were gathered at the base. I recognized a few of the traders wearing their round hats and robes. One of them was named Kalino.

"What is this thing?" he asked.

Since there's no word in Chichewa for windmill, I used the phrase magetsi a mphepo.

"Electric wind," I answered.

"What does it do?"

"Generates electricity from the wind. I'll show you."

"That's impossible," Kalino said, smiling. Then he turned to get a reaction from the crowd.

"It looks like a transmitter, and what kind of toy is that?"

"Stand back and watch."

I jumped down from the tower and ran to my room to get the final piece. That morning I'd found a thick reed and cut a section about ten inches long-the perfect size to hold the dynamo's small lightbulb. I then wrapped a long copper wire around the base of the bulb and strung it through the reed so that one end dangled out the side. This was my socket.

With the reed and bulb in my hand, I climbed the tower again and twisted its wires against the ones from the dynamo. As I did this, more and more people arrived. I watched the chorus below from the corner of my eye.

"What do you suppose he's doing now?" asked a farmer named Banda.

"This is the misala from the scrapyards my children spoke about," a fat man answered. "His poor mother!"

Looking out, I saw my parents and sisters hanging at the back of the crowd, eyes wide and waiting. Their jaws hung slightly open, as if there were seconds left on the clock and I had the ball. By now, my movements were automatic. I'd practiced this moment for months.

Aside from my family, about thirty adults had now gathered, and just as many children. They pointed at me.

"Let's see how crazy this boy really is."

Quiet down! This is going to be a good show."

A steady wind whipped through the rungs of the tower, mixing the smells of chain grease and melted plastic. The bent bicycle spoke remained jammed into the wheel to hold it in place, but now the machine groaned against the breeze, as if begging me to release it.

Here it goes, I thought.

I grabbed the bicycle spoke and jerked it loose. When I did, the blades began to turn. The chain snapped tight against the sprocket, and the tire spun slowly creaking and groaning at first. Everything was happening in slow motion. I needed to get it to go faster, immediately.

"Come on," I begged. "Don't embarrass me now."

Come on, I thought, come on.

Just then a gust of wind slammed against my body, and the blades kicked up like mad. The tower rocked once, knocking me off balance. I wrapped my elbow around the wooden rung as the blades spun like furious propellers behind my head. I held the bulb before me, waiting for my miracle. It flickered once. Just a flash at first, then a surge of bright, magnificent light. My heart nearly burst.

"Look," someone said. "He's made light!"

"It's true what he said!"

A gang of school kids pushed through the crowd so they could see better.

"Look how it spins!" they said.

It was glorious light, and it was absolutely mine! I threw my hands in the air and screamed with joy. I began to laugh so

hard I became dizzy. Dangling now by one arm with the bulb burning bright in my hand, I looked down at the eyes below—now wide in disbelief.

"Electric wind!" I said. "I told you I wasn't mad!"

One by one, the crowd began to cheer. They raised their hands in the air, clapping and shouting, "Wachitabwina! Well done!

"You did it William!"

"We doubted you, but look at you now!"

"I did it," I said, "And I'm going bigger now. Just wait and see!"

The adults began shouting questions up to me, but the noise of the blades ripping the wind behind me drowned out their voices. They crowded around Gilbert and Geoffrey instead, grilling them on the details. These guys couldn't stop smiling. I stood up there for about thirty minutes, taking in everything around me. It was a good place to stand and soak it all in. I only climbed down after the bulb became too hot and I had to let it go.
