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# **THE GIRL WHO COULD FIX ANYTHING**

Beatrice Shilling, World War II Engineer



Article 39

You have the  
right to  
freedom from  
war



# THE GIRL WHO COULD FIX ANYTHING

Beatrice Shilling, World War II Engineer



Mara Rockliff

*illustrated by Daniel Duncan*



WALKER BOOKS  
AND SUBSIDIARIES

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This week, we  
are going to  
think about the  
important roles  
that different  
individuals  
played in the  
war effort...





**B**eatrice Shilling wasn't quite like other children.  
She preferred tools to sweets.





Tools were so marvellous for making things,  
and fixing things, and taking things apart!  
Beatrice could make anything ...



and when she took a thing apart,



fix anything ...



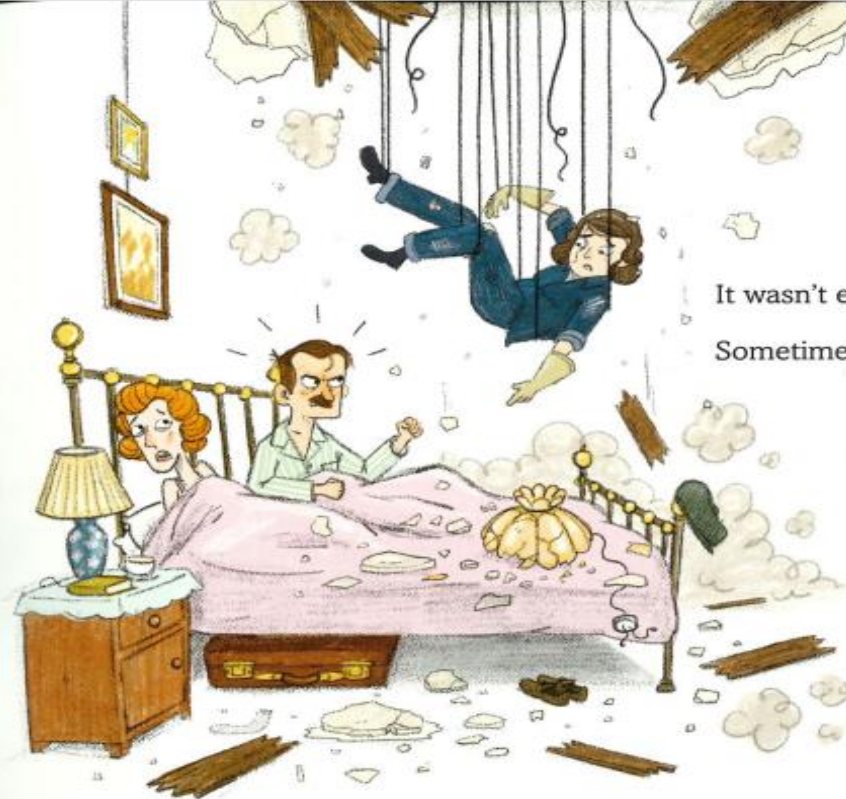
she put it back together better than before.





One day, Beatrice and her mother went to London to meet a woman named Miss Partridge. Miss Partridge was an engineer. Her work was bringing electricity to villages, and she wanted a clever girl to help.

Beatrice was going to be an apprentice engineer!



It wasn't easy work.

Sometimes Beatrice made mistakes.

But she loved learning something new.

Miss Partridge said Beatrice should study at a university.







Beatrice wasn't quite like other students.





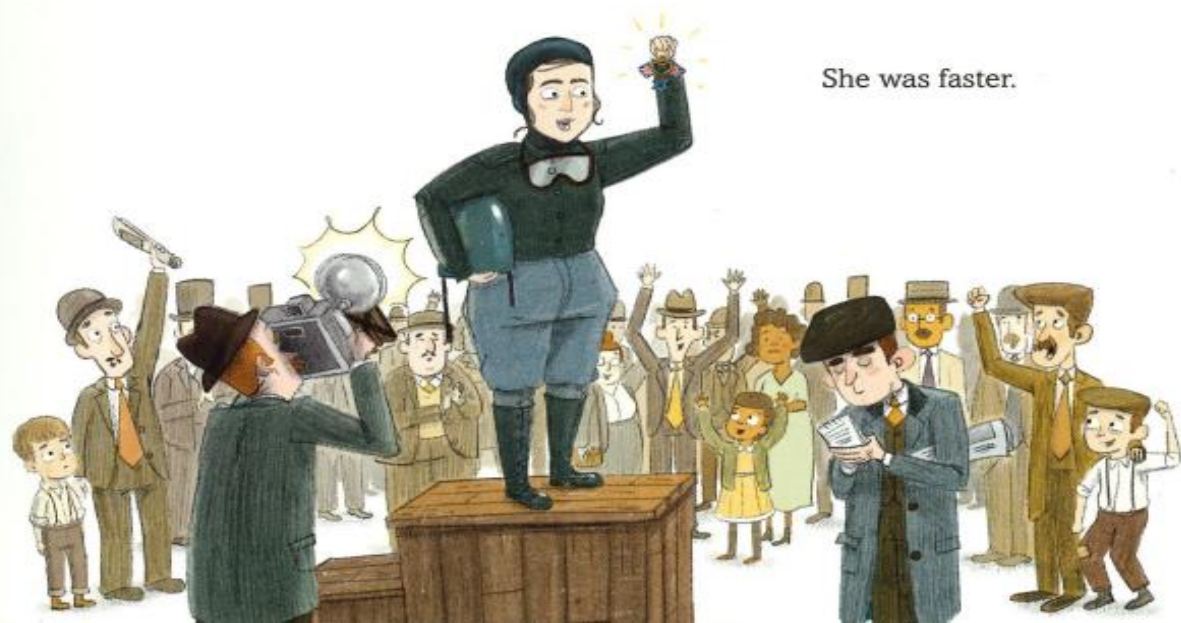
She was clever with her books, but even cleverer with tools.  
In her spare time, she tinkered with her motorbike.



Then she took it to the racetrack, where she found  
she wasn't quite like other riders, either.



She was faster.





By the time Beatrice left the university, there wasn't much she didn't know about machines. Yet no one seemed to have a job for somebody who wasn't quite like other graduates.







At last, the Royal Aircraft Establishment hired Beatrice to write handbooks about plane engines.

For Beatrice, writing about engines was a boring job. She wanted to work on real engines.

Finally, the Engine Department agreed to give her a try.

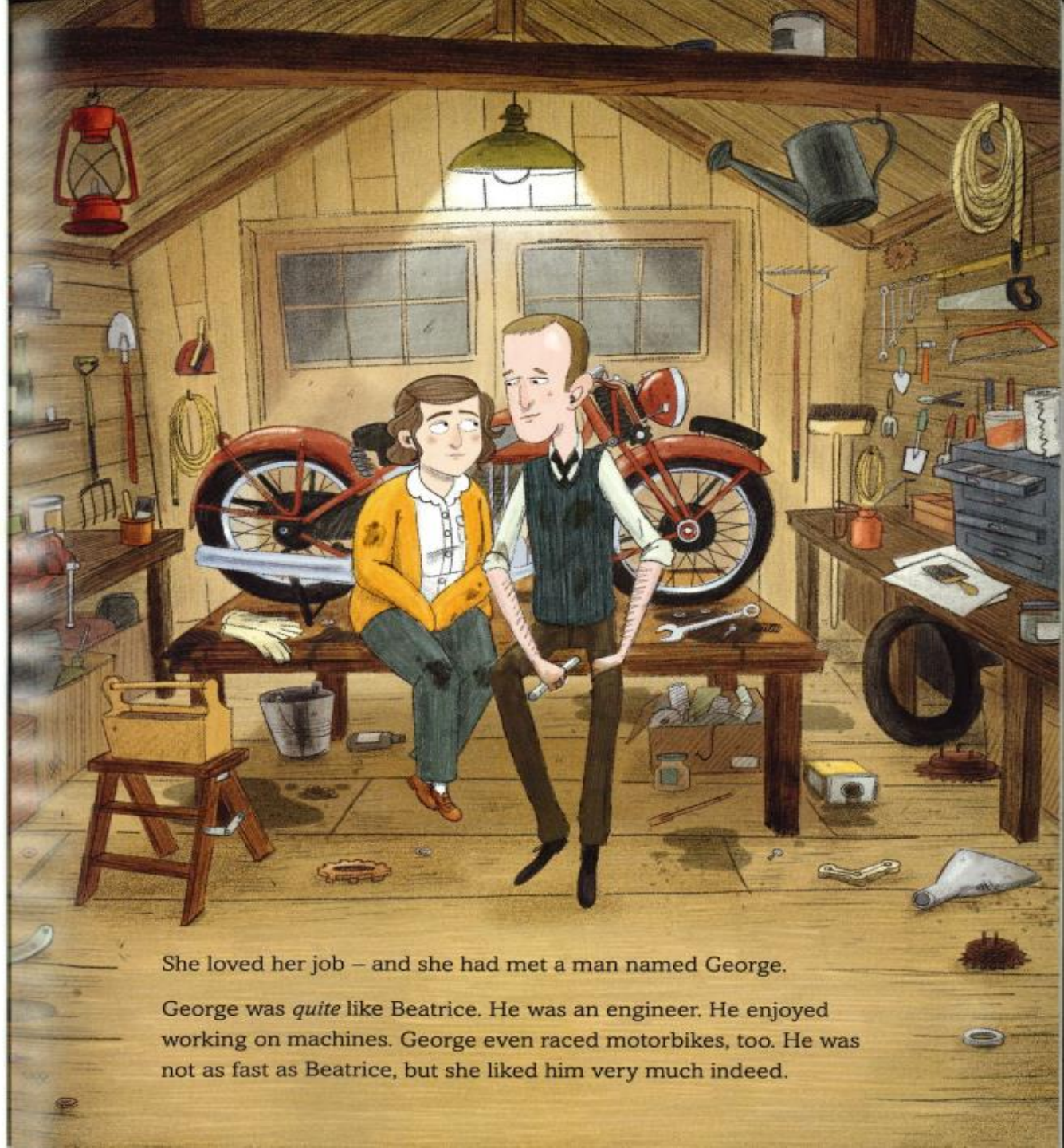




Beatrice still made mistakes sometimes.



But she was as happy as could be.



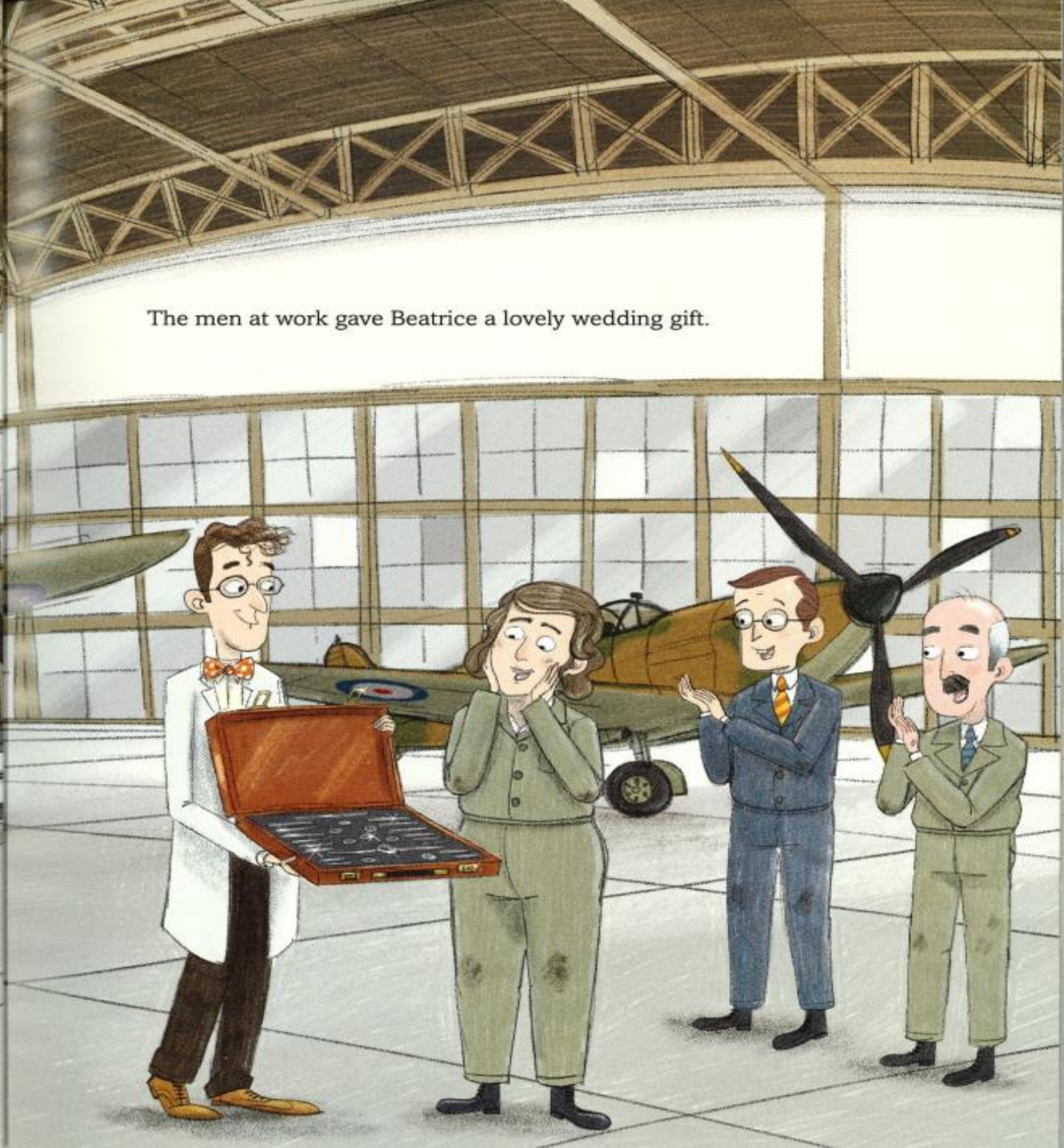
She loved her job – and she had met a man named George.

George was *quite* like Beatrice. He was an engineer. He enjoyed working on machines. George even raced motorbikes, too. He was not as fast as Beatrice, but she liked him very much indeed.






The men at work gave Beatrice a lovely wedding gift.







The next year, Britain went to war.

By now, everyone at the Royal Aircraft Establishment knew that Beatrice could fix anything. She was put in charge of a small team. They dashed around the country, showing Royal Air Force pilots how to make their planes start in the coldest weather and stop their engines from icing up.

But there was one problem nobody could solve.



Fighter pilots were like acrobats. They dived and spun and twisted, trying to shoot down the enemy without being shot down themselves.

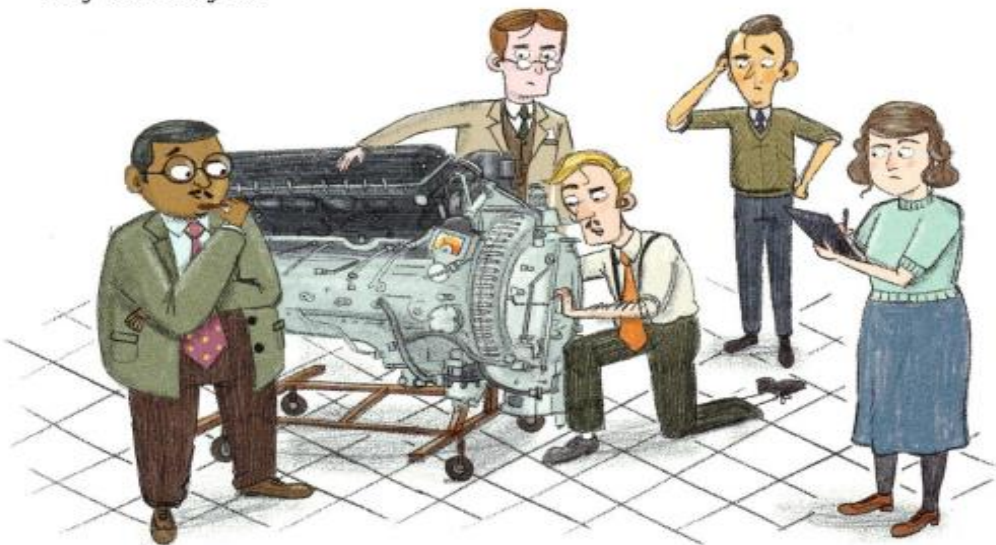
British fighter pilots flew Hurricanes and Spitfires. Both planes had the same type of engine, and that engine had a problem. When a pilot had to dive suddenly, the plane's engine often sputtered or, for a few seconds, simply stopped. This was not helpful in the middle of a fight.

The problem seemed clear: not enough fuel was getting to the engine. It should have been easy to fix. Yet nothing seemed to work.





Day after day ...



week after week ...



Beatrice and her team worked late into the night.





It was a big problem for the Royal Air Force.  
Many engineers were searching for a solution.  
But Beatrice wasn't quite like other engineers.



She found the answer.

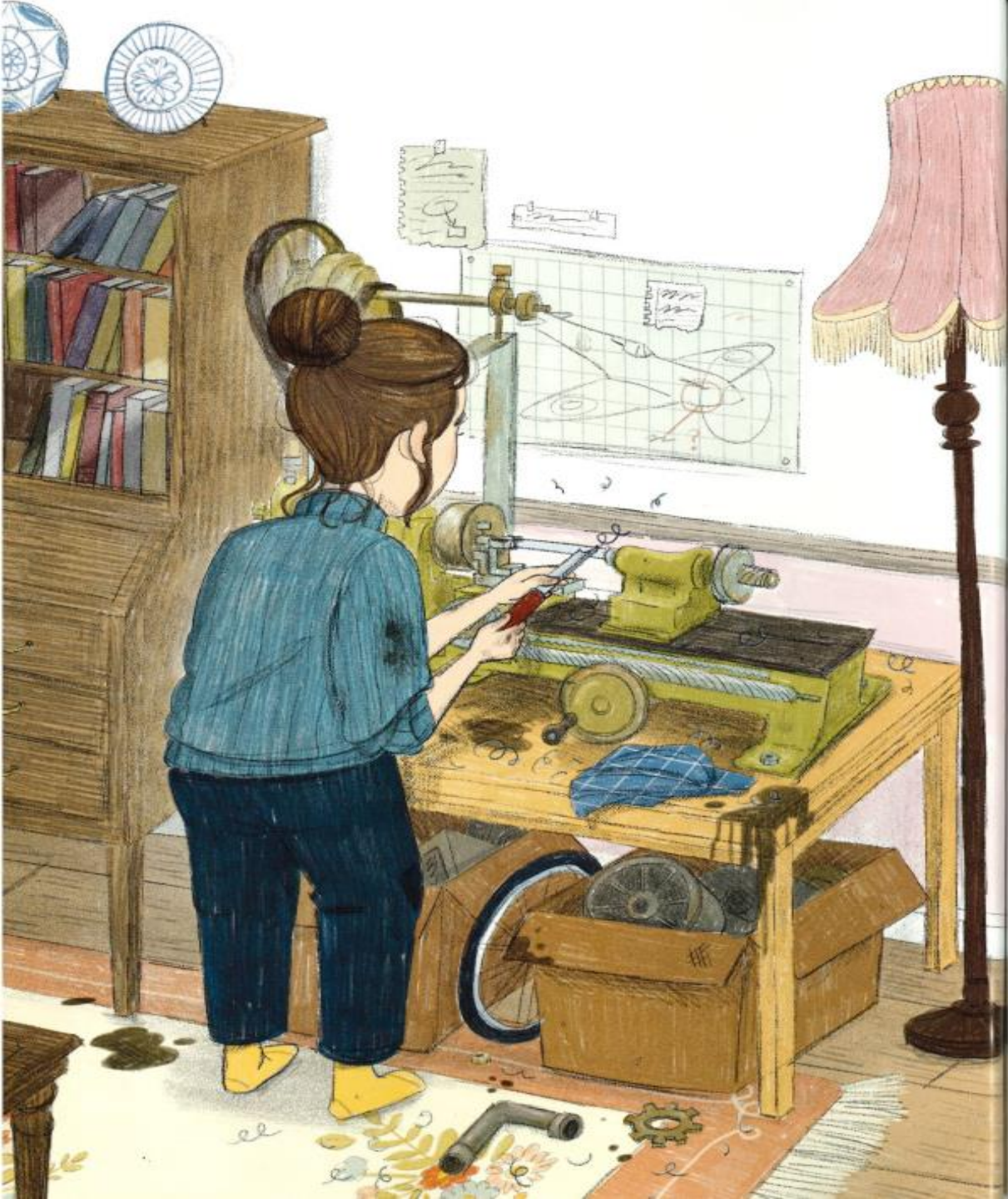
The problem wasn't whether enough fuel got to the engine when the pilot dived. No, the real problem came an instant later, when *too much* fuel flooded in.



Changing the engine's design could fix the problem, but that would take time and money. And time and money were exactly what the British didn't have.

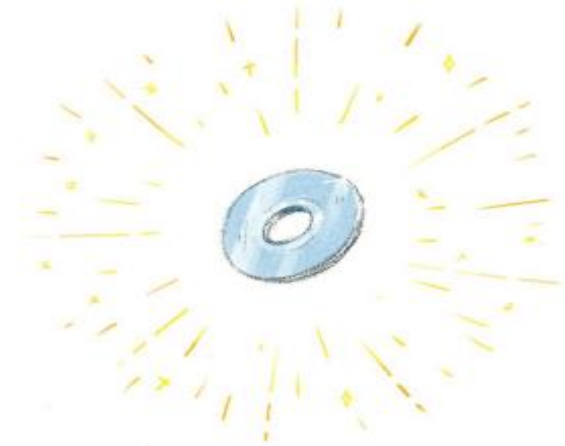






Luckily, they had Beatrice.

She made a little piece of metal with a hole in it that let through just the right amount of fuel. It was easy. It was cheap. It could be put on quickly at an airfield without even taking the engine out of the plane.





When Beatrice roared up on her motorbike with her bag of tools, pilots knew they didn't have to worry any more.

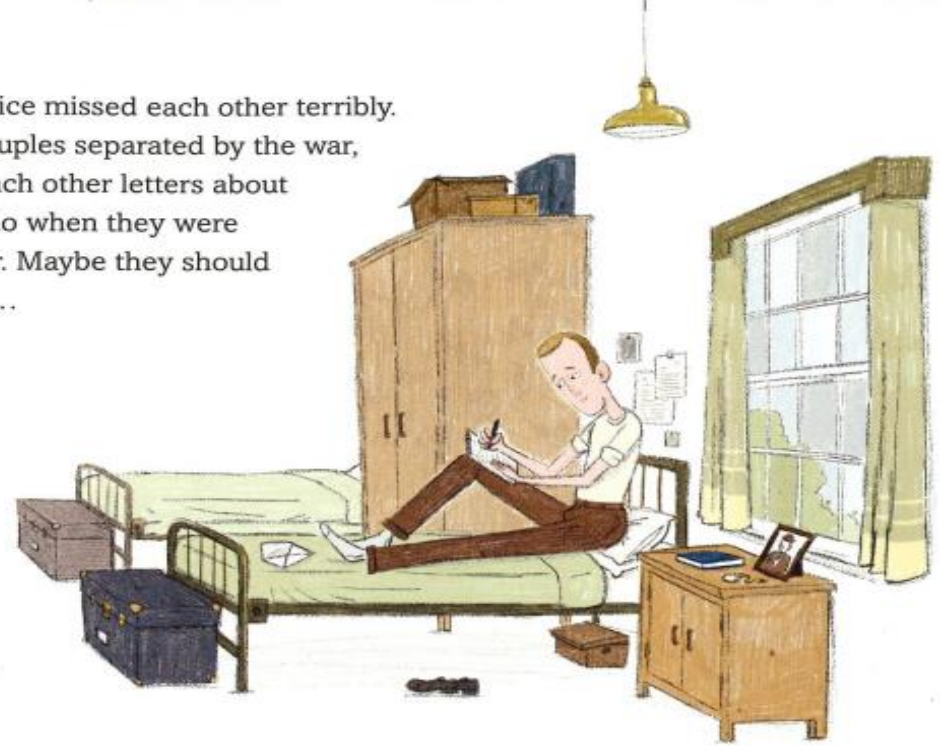






George joined the Royal Air Force as a pilot, too.

He and Beatrice missed each other terribly. Like other couples separated by the war, they wrote each other letters about what they'd do when they were back together. Maybe they should have a baby ...



Of course, George and Beatrice weren't *quite* like other couples.



Beatrice decided she would rather have a plane.





Why was Beatrice different to the rest of her university class?

If she went to uni today, do you think her class would look similar?

Did Beatrice need to make a big change to the planes to help the pilots?







## School Reflection

This is our school,  
Let peace dwell here,

Let the rooms be full of contentment.

Let love abide here,  
Love of one another,

Love of mankind,  
Love of life itself.

Let us remember

That as many hands build a house,

So many hearts make a school

Help us to learn, play and share together.

We hope our school will be a place of great discovery, adventure and creativity.

May it be a place where we love to learn and where we learn to love,

A place where everyone is respected, and all are deeply valued.