Opening extract from
Until I Met Dudley

Written by
Roger McGough

Illustrated by
Chris Riddell

Published by
Frances Lincoln Children's Books

Please print off and read at your leisure.

Until I Met Dudley

Dudley

How everyday things really work

To Evelyn – C.R.

ROGER McGOUGH

Illustrated by **CHRIS RIDDELL**

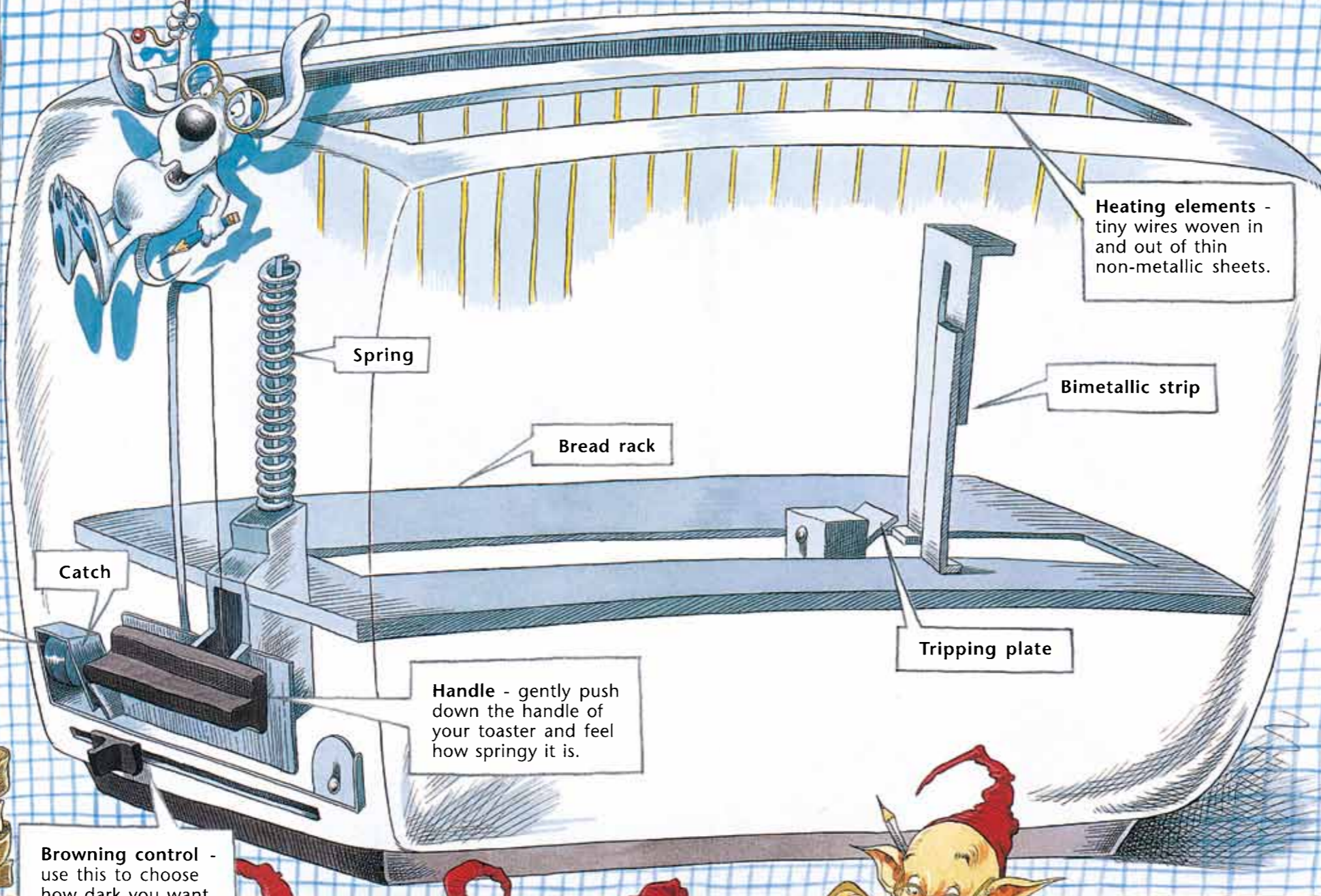I thought I knew how a toaster worked...

When you put the slices of bread into the toaster and push the handle down, an alarm goes off underground, alerting the toast gnomes who spring into action. A friendly dragon toasts the bread with his fiery breath (although sometimes he breathes too hard!). Cog-wheels and conveyor belts, treadmills and telescopes - it's all so simple!

until I met Dudley...
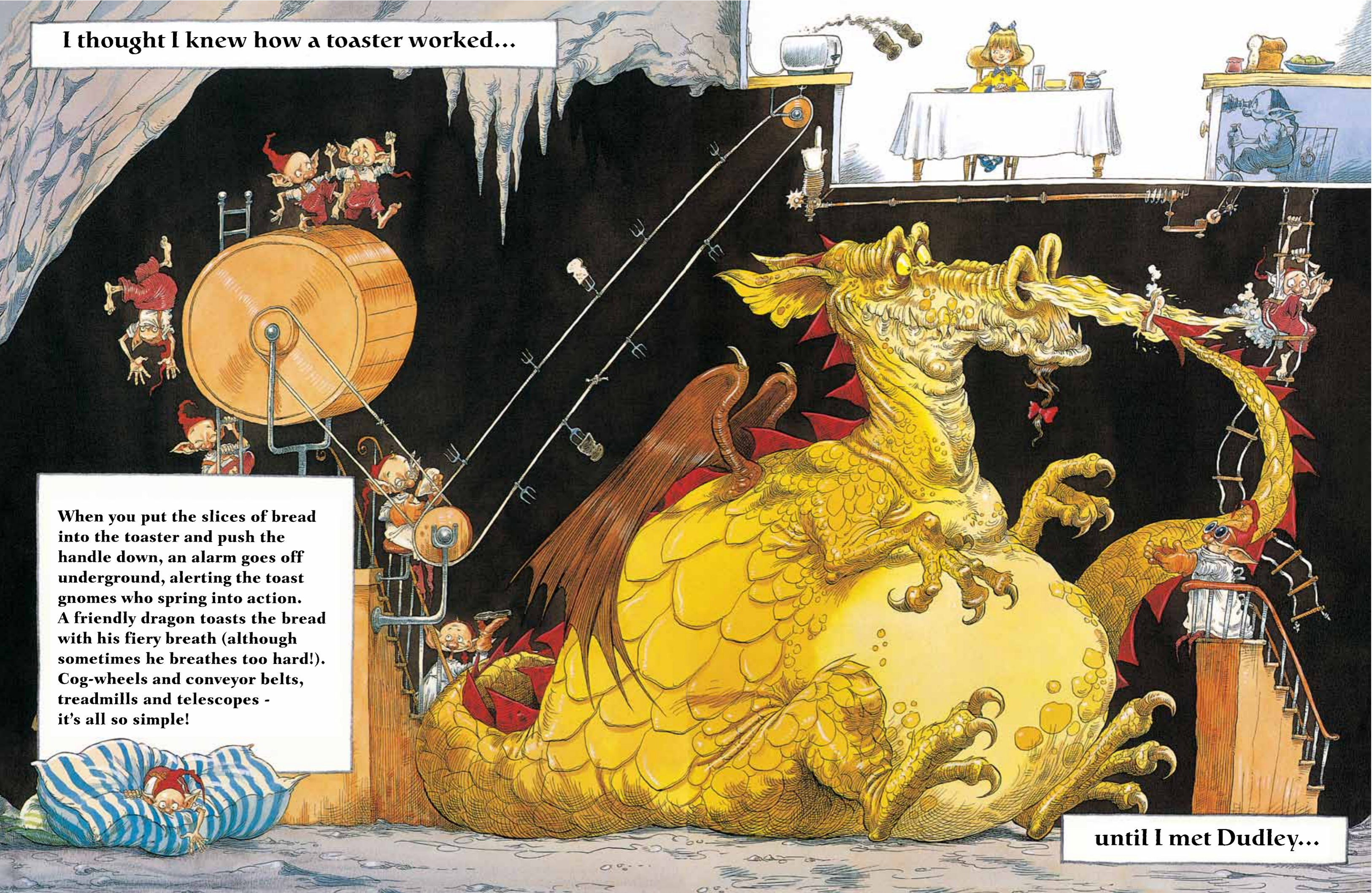
Dudley showed me how a toaster works...

1. A toaster needs electricity to work... so... check it's plugged in and that the power is switched on. Pop a slice of bread (or 2 if you're hungry!) into the slots in the top. The bread nestles inside the toaster on a **rack** that is attached to a **spring**.

Heating elements - tiny wires woven in and out of thin non-metallic sheets.

Spring

Bimetallic strip

Bread rack

Catch

Electromagnet

Tripping plate

Handle - gently push down the handle of your toaster and feel how springy it is.

2. *ZZZZPP!* When you pull the toaster handle down, the spring s-t-r-e-t-c-h-e-s and the rack moves down. *CLICK!* The rack is now locked in position with a small **catch**.

Browning control - use this to choose how dark you want your toast.

3. The electricity zooms along tiny wires woven together, called **heating elements**, either side of the bread. They are so hot that they start to glow, heating up the soft bread and turning it into toast.

4. When the elements heat up, so does a strip inside the toaster. As it is made of two different metals, it's called a **bimetallic strip**. When it gets hot, one of the metals expands more than the other. This makes it bend so it touches the **tripping plate**.

5. As soon as the bimetallic strip and tripping plate touch... *POW!*.. they make an electric circuit, or path.

6. Then the electricity surges along the path into an **electromagnet**. As the electric current passes through the magnet, it trips the catch that holds down the rack, then... *BOING!*.. The rack springs up and...

POP!

Out comes tasty toast. Pass the marmalade, Dudley...

I thought I knew how a fridge worked...

Special polar bears arrive every night to deliver blocks of ice cut from icebergs floating in the oceans of the Arctic. They pack the fridge with the ice and make sure everything is cold enough before leaving - which explains those paw-prints in the chocolate mousse.

As the ice begins to melt, water runs down the back of the fridge into a secret compartment at the bottom. Here, it flows into a water-wheel which drives a fan that spins cool air to keep the fridge cold.
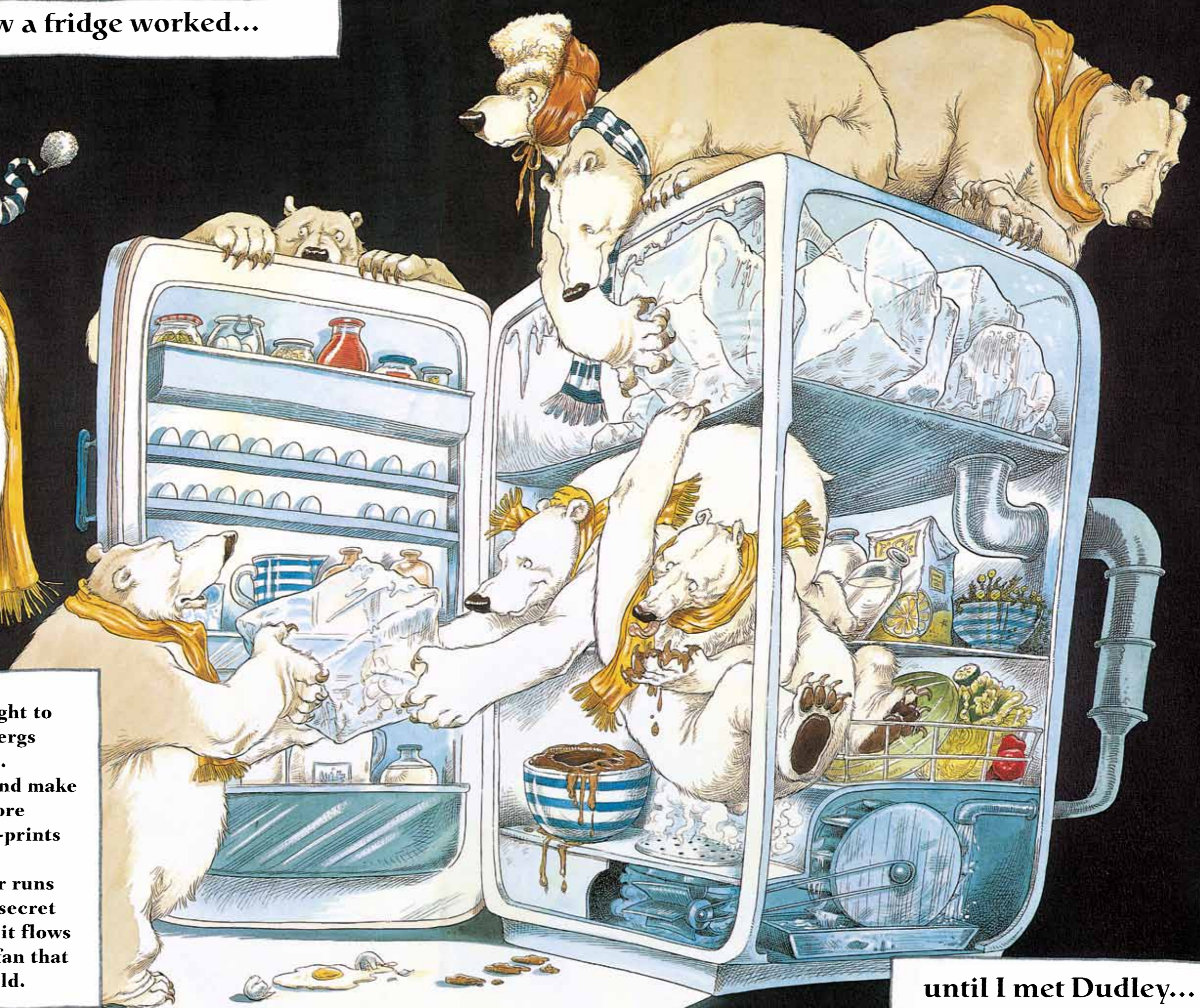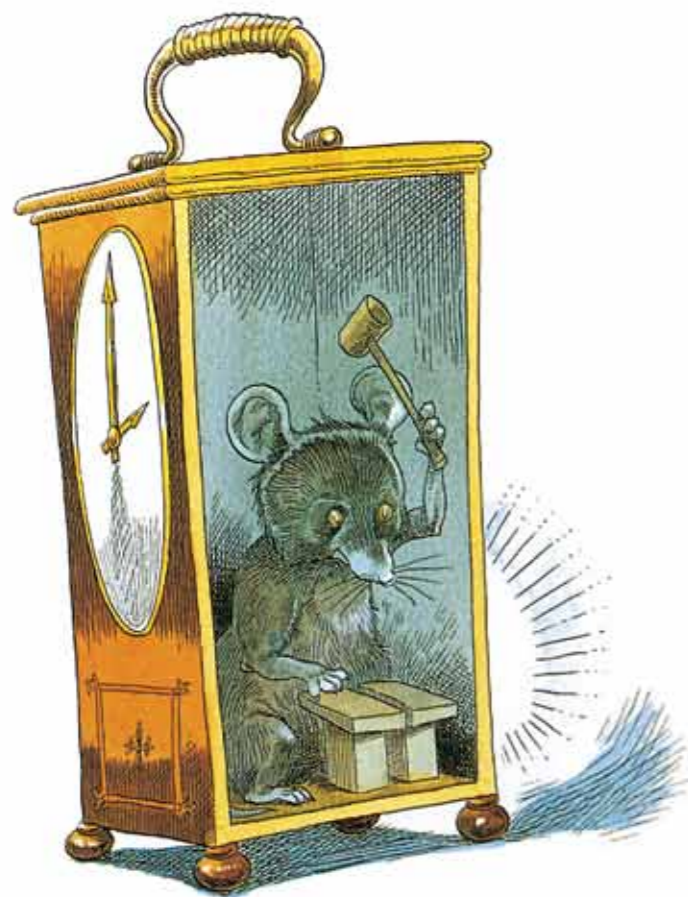
until I met Dudley...

Until I met Dudley I imagined all sorts of crazy things. I thought I knew...
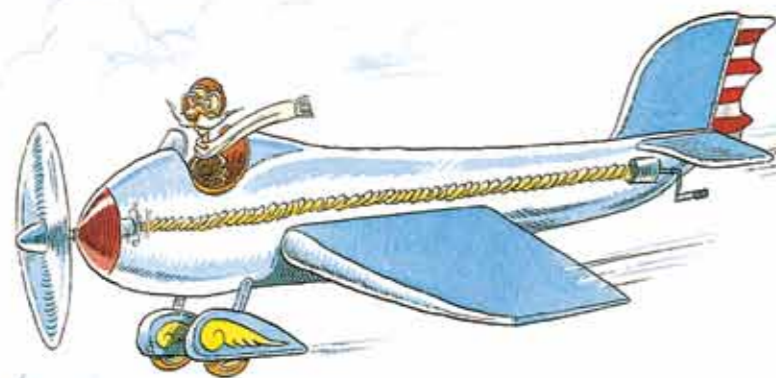
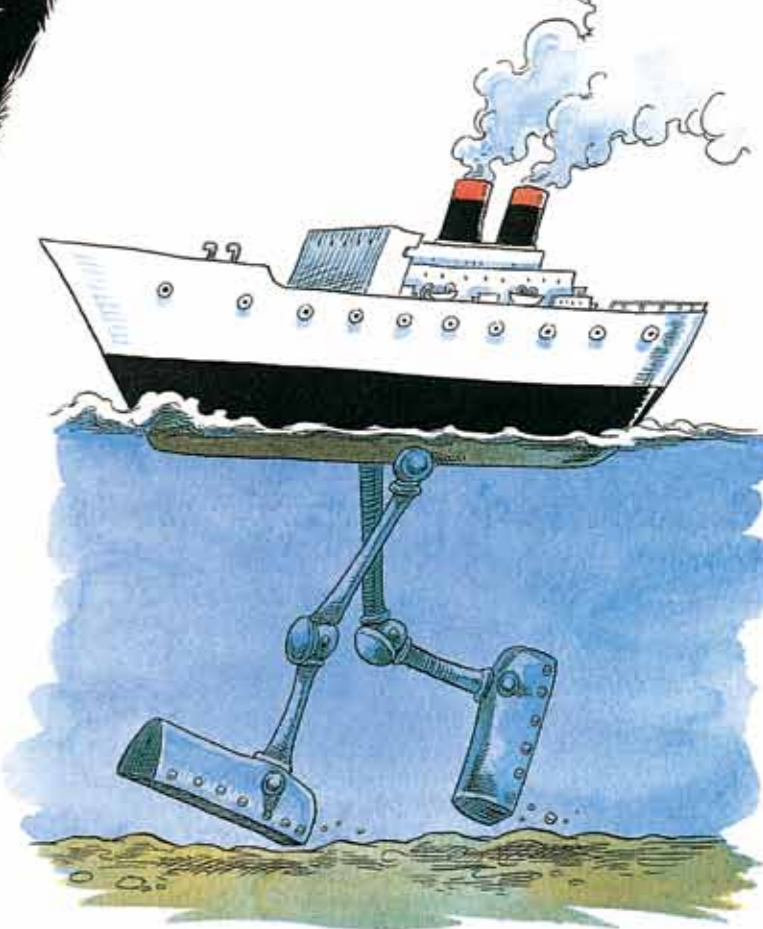how an aeroplane flies

how a clock ticks
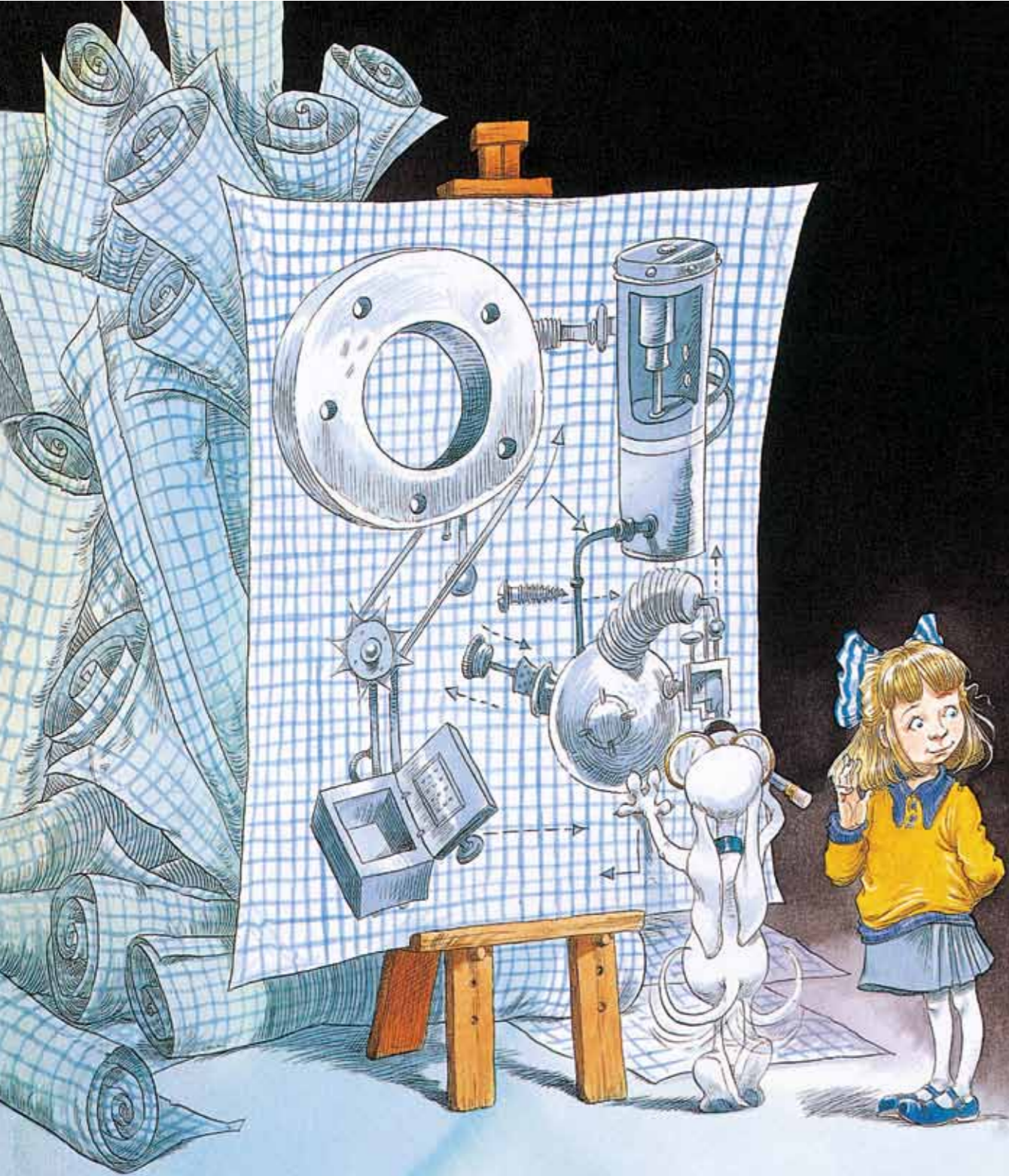
how bagpipes get their distinctive sound

how large ships keep afloat

how stars shine at night

how bubbles get into fizzy drinks

I'm really glad I met him...

...I think!