

Sometimes our Christoph  
gets quite pensive.

This ring: no start or end  
to it...?

But it must have had a start  
and end once, he thinks...

Who would know? Someone who  
makes rings - a goldsmith!

So our Christoph visits one:  
Christoph Lehmann in Helmstedt.

He asks him how rings are made.  
I'll show you, says Christoph II.

Take little balls of silver.

Then add some copper.  
In this fire-proof dish-

they're heated up together,  
until they melt.

Now the metal is molten.  
It has to be kept hot-

so that Christoph can pour  
it into a special mould.

Let it cool slightly.  
Then open the mould carefully.

Sendung mit der Maus - Ring - englische UT-Texte

In it is a bar made of  
the silver and the copper.

Take it out, and quench it  
in cold water.

Saw off the small lump that  
formed during casting.

The bar has to be even.  
Why, we'll see soon.

File it smooth.

Now, the bar is ready to  
go through this roller.

That takes strength! The bar is  
passed through lots of times.

The gap between the rolls  
is made narrower.

So the bar gets thinner  
and longer.

This kneads the metals together.

Finally, the bar is rolled flat.

But it's still a bar, not a ring.

The goldsmith bends the bar.  
First with ordinary pliers.

"Coming along!"  
thinks *our* Christoph.

The bar is too long for a ring.  
So a bit is sawn off-

at each end. The ends have  
to be smooth.

With special pliers, Christoph II  
bends the bar into a circle-

and brings the two ends  
close together.

Now's there's just a small gap  
between start and finish.

He adds some silver solder.

That's a metal which fills  
even the tiniest cracks.

The join is still visible.

Cool it off, then put it  
briefly into an acid bath.

Christoph files the ring,  
especially around the join.

Now, the join can't be seen.

Then he files...  
and files, and files...

Now he takes a tool that only  
goldsmiths use: a ring mandrel.

He places the ring on that.

He has to round off the edges.

First with a hammer. After all,  
he is a *goldsmith*

Starting to look good.

Now comes the precision work.

First: file again.

Inside as well, with sandpaper.

File once more.

And sandpaper once again.

Finally: polish to make the  
ring shine and sparkle.

Finished! A wonderful ring.  
*Wonder-ful?* Magic perhaps?

Christoph has an idea...

He puts on the ring...  
twists it... and...

Yes, it really is a magic ring!